FRONTLINES OF FINANCE

Using Mission Critical AI to Fight Financial Crime

Steve Cohen
FEB 27, 2019
AI has actually saved lives

LIQUID BOMB PLOT

Plot detected by UK & US intelligence services
THE SAME PROBLEMS

Finding bad actors from text signals
THE SAME SOLUTION?

Natural Language Processing (NLP)
THE INTELLIGENCE CYCLE

PLANNING, DIRECTION NEEDS, REQUIREMENTS

COLLECTION

PROCESSING EXPLOITATION

ANALYSIS

DISSEMINATION
INTELLIGENCE’S CRITICAL DIMENSIONS

ACCESS

SPEED

ACCURACY

UNDERSTANDING
THE INTELLIGENCE REVOLUTION

HUMINT

OSINT

SIGINT
Volume and velocity make processing and analyzing hard (especially if it’s time critical).
THE SAME.
NLP TO THE RESCUE

- Machine Learning
- Better Data Standards
- Better Data Sources/Collection
- Interactive Learning
MACHINES CAN READ GOOD

pre-2000s
NLP Rules Pipelines

Recently
(Classic) Machine Learning

Current Era
Deep Networks
MACHINES CAN READ GOOD

CHANGING HISTORY: CAPTURING EL CHAPO

Source: U.S. Immigration and Customs Enforcement
CHANGING HISTORY: BOSTON BOMBING

Tamir Kitayev

ID NUMBER
00120432

DATE OF BIRTH
10-21-1986

ETHNICITY
CHECHEN-AVAR

NAME MATCHING

Тамерлан Царнаев

96%

Tsarnayev

75%

Tamerlin Carnaev

87%

ENTITY LINKING

DZHOKHAR TSARNAEV

RELATIONSHIP
BROTHER

DATE OF BIRTH
07-22-1993

DAGESTAN RUSSIAN REPUBLIC

VISITED
6 MONTHS IN 2002

ISLAMIC SOCIETY OF BOSTON

Amerit B. Старная 

обнаружили спустя несколько часов после взрыва в доме в пригороде Бостона Уотертауне.

After re-entering the United States, his detention was “mandatory.” Official interviewed 

أعربت الشرطة الأمريكية في ولاية فرجينيا عن استيائها 

للفكرة المنشئة في تجربة وسط بناء تجريب

تامران تسارنايف

90%

بrescia

84%

د訴發兄弟在4月15日波士頓馬拉松賽期間製 

造成3人死亡, 200多人 受傷

FRON TLINES OF FINANCE ● BASIS TECHNOLOGY
How NLP works for financial services

- Due diligence/PEP
- Communication Monitoring
- Compliance screening