



# FRAUD & TECHNOLOGY

WHATS IN YOUR OFFICE?

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# HISTORY OF FRAUD

- CIRCA 300 B.C. - GREEK MERCHANT TRIES TO SINK SHIP TO COLLECT INSURANCE
- 1496 - 20 YEAR OLD MICHELANGELO FORGES AN ANCIENT SCULPTURE OF CUPID
- 1863 – PRESIDENT LINCOLN SIGNS FALSE CLAIMS ACT
- 1920 – PONZI – COLLECTED \$15 M IN 8 MONTHS
- 1925 – THE EIFEL TOWER SALE – COUNT LUSTIG SOLD IT - \$200M
- 2001 – ENRON SCHEME
- 2008 – THE MADDOFF SCHEME

# FRAUD BUSTING

- STORY LINES
- TRUTH FILTERS
- IN THE MOMENT WARNINGS
- SPOTTING TRENDS
- MINORITY REPORT
- ENHANCED LIE DETECTION



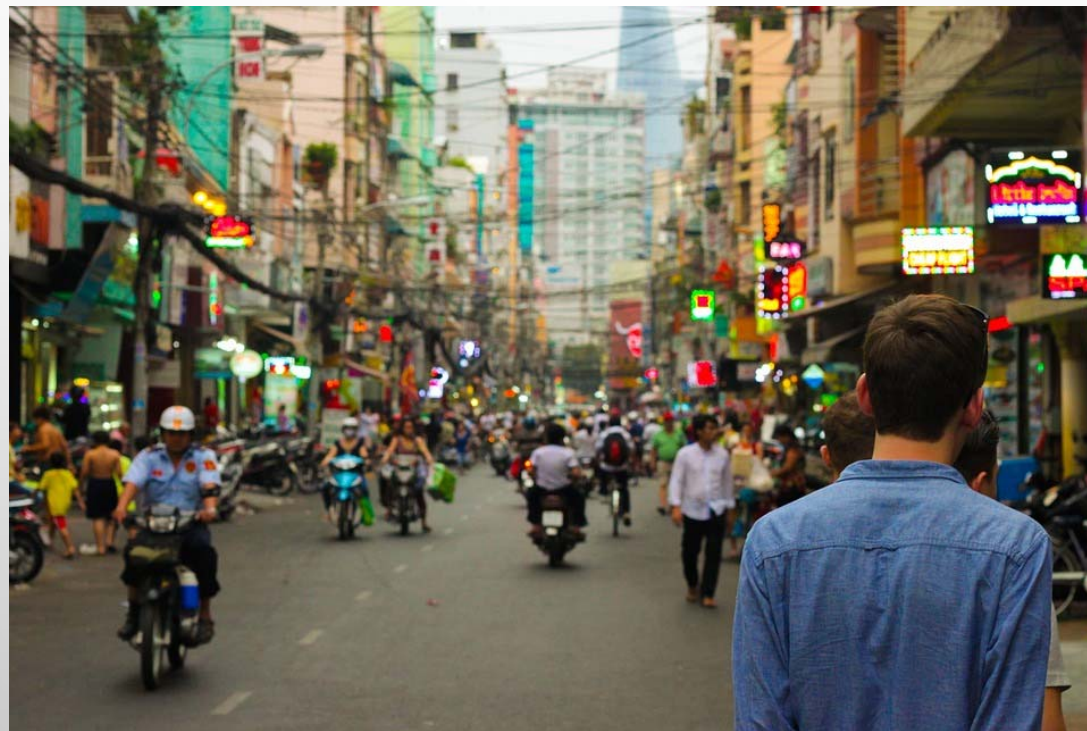
# SUSPICIOUS STORY LINES

- SPAM FILTERS – BLOCK EMAILS????
- ZAPFRAUD – LOOKS FOR NARRATIVE PATTERNS
  - SUM OF MONEY AND A CALL TO ACTION
- FUTURE
  - NATURAL LANGUAGE ANALYTICS WILL REACH BEYOND EMAIL FILTERING TO:
    - FLAG TEXT MESSAGES
    - INTERACTIONS ON SOCIAL MEDI
    - MESSAGES ON DATING SITES

# TRUTH FILTERS

- FLAGGING FALSE STATEMENTS
  - FAKE BLOOMBERG ARTICLE RE: TWITTER BUYOUT MOVED THE STOCK MARKET
- FUTURE:
  - PHEME
    - RESEARCH EXAMINES STREAMS OF SOCIAL DATA TO ID RUMORS TO ID ORIGIN
    - PLANS TO FLAG MISLEADING TWEETS, POSTS AND CLASSIFY THEM BY SEVERITY
      - SPECULATION
      - CONTROVERSY
      - MISINFORMATION OR DISINFORMATION

# IN THE MOMENT WARNINGS



# SPOTTING TRENDS

- BIG DATA- COMBINING STATISTICS TO FIND PATTERNS THAT SHOULD TIP US OFF
  - \$IFT SCIENCE
    - FOR EXAMPLE: BY ANALYZING ALL COMPANIES THAT SELL A CERTAIN KIND OF PRODUCT, YOU FLAG AN ANOMALY-
    - SUDDEN SPIKE IN CANCELED CONTRACTS- MIGHT INDICATE SKETCHY ACTIVITY
    - SIMILAR TO CREDIT-CARD FRAUD ALERTS – GROCERIES IN MEXICO, ETC.
  - AARP
    - REVIEWING RECORDINGS OF FRAUD CALLS BY FBI TO ANALYZE TACTICS
      - PHANTOM FIXATION – TEACH THEM TO RECOGNIZE



# MINORITY REPORT FOR FRAUD



# ENHANCED LIE DETECTION



# COOL TECHNOLOGIES USED IN FORENSIC SCIENCE

- [LASER ABLATION INDUCTIVELY COUPLED PLASMA MASS SPECTROMETRY \(LA-ICP-MS\)](#)
- [ALTERNATIVE LIGHT PHOTOGRAPHY](#)
- [HIGH-SPEED BALLISTICS PHOTOGRAPHY](#)
- [VIDEO SPECTRAL COMPARATOR 2000](#)
- [DIGITAL SURVEILLANCE FOR XBOX \(XFT DEVICE\)](#)
- [3D FORENSIC FACIAL RECONSTRUCTION](#)
- [DNA SEQUENCER](#)
- [FORENSIC CARBON-14 DATING](#)
- [MAGNETIC FINGERPRINTING AND AUTOMATED FINGERPRINT IDENTIFICATION \(AFIS\)](#)
- [LINK ANALYSIS SOFTWARE FOR FORENSIC ACCOUNTANTS](#)

# HOW DO THEY DO IT...

## VIRTUAL OFFICE SERVICES



## MODERN TECHNOLOGY



# TELEPHONES ...

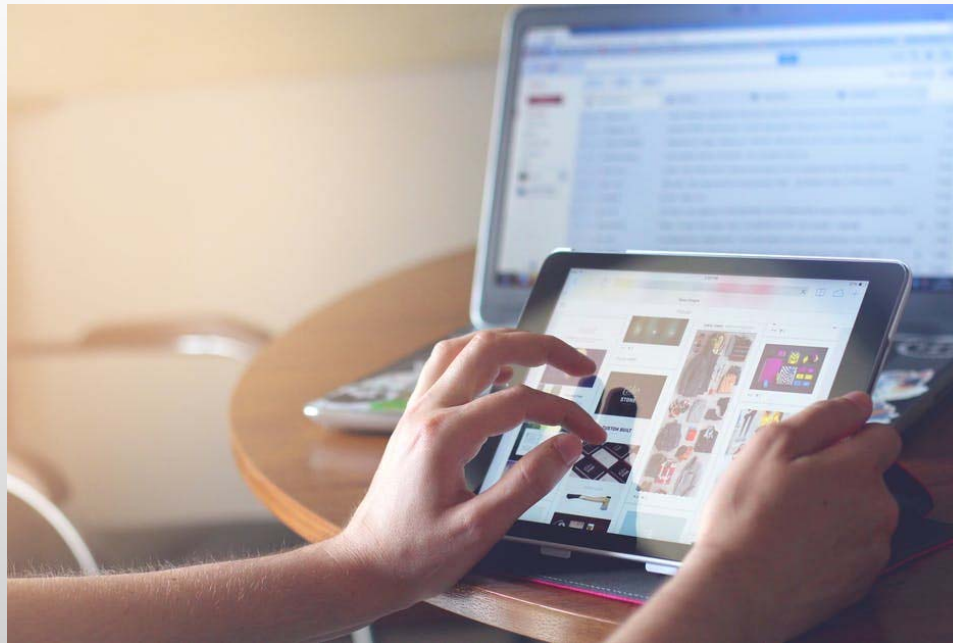
## VIRTUAL TELEPHONE SERVICE



## CELLULAR AND DISPOSAL PHONE SERVICE

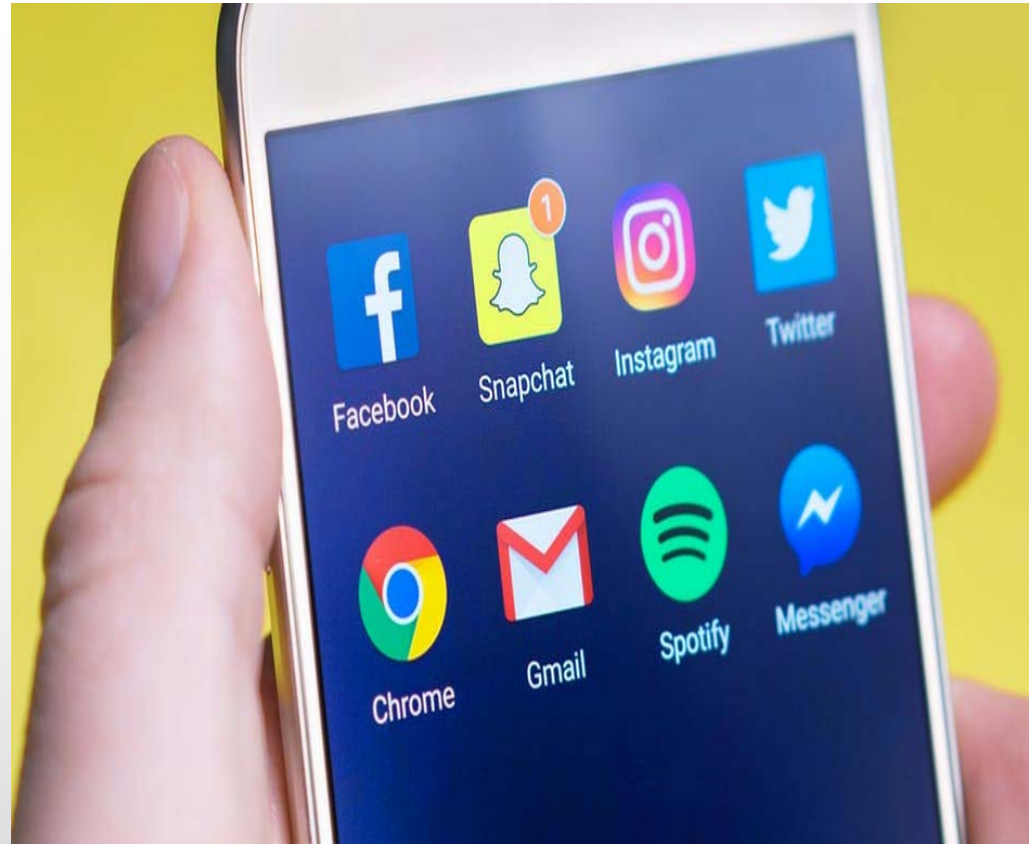


# WEBSITES AND THE INTERNET...



# NEW TECHNOLOGY, NEW FRAUD

- **VAST AMOUNTS OF  
PERSONAL DATA COLLECTED**
- **MACHINE CONNECTIVITY**
- **SOCIAL MEDIA**
- **WIFI**



# FRAUDSTERS ON THE LOOSE...

- MALICIOUS ATTACKERS ANALYZE DATA
  - COMPANY WEBSITES
  - EMAILS
  - LINKEDIN
- POSE AS A PROFESSIONAL GOING ON VACATION
  - REQUEST MONEY TRANSFERS
  - SWINDLE CUSTOMERS

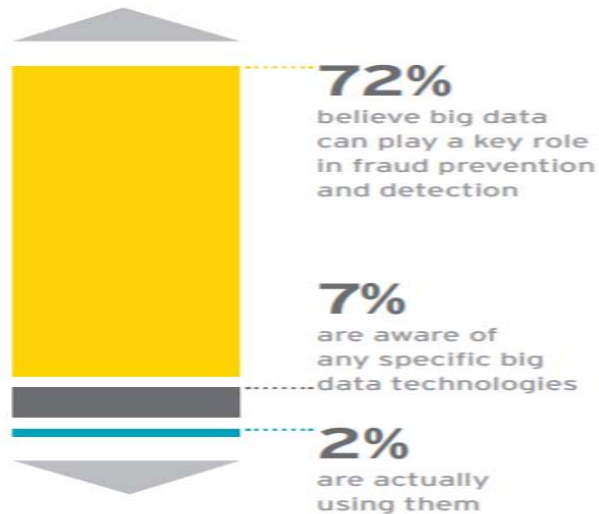
# SOLUTIONS

- ACCEPT THAT YOU MAY BE TARGET OF FRAUD
- RESEARCH TOOLS TO DETECT FRAUD
- ENCRYPTION TOOLS
- PASSWORDS
  - FINGER PRINT SCANS
- RISK INSURANCE
  - DO YOUR HOMEWORK



# FORENSIC TECHNOLOGY

## Big data has big potential\*



## Cyber attack detection\*\*



of organizations unlikely to detect a sophisticated cyber attack

*\*EY's Global Forensic Data Analytics Survey 2014  
Big risks require big data thinking*

*\*\*EY's Global Information Security Survey 2014*

# CONNECTING LEADING TECHNOLOGY AND FORENSIC ANALYSIS TO SUPPORT YOUR LITIGATION EFFORTS, AND ANTI-FRAUD AND COMPLIANCE PROGRAMS

Connecting leading technology and forensic analysis to support your litigation efforts, and anti-fraud and compliance programs

## You need to...

**Detect and investigate noncompliance and fraud**

## We will help you by...

- ▶ Strengthening your anti-fraud operations by using our FDA capability to analyze large and complex sets of structured and unstructured data from multiple sources
- ▶ Detecting potentially fraudulent and other corrupt conduct by analyzing transactional data and the behavior patterns of employees and suppliers
- ▶ Identifying potential weaknesses in your fraud prevention strategy through our deep understanding of your network systems, business processes and sector-specific risks



# QUESTIONS?

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