### Nethone

## Digital footprint analysis for improving transaction safety and credit scoring effectiveness

Exhaustive "here-and-now" data feed, risk management, and fraud prevention

FinTech Connect, 3rd Dec '19, London

# Team of ~65 tech enthusiasts with top-class data science, engineering, and business skills

We gathered experience in world's top institutions





Cooperated with experienced entities to gain valuable insights

POLISH LOAN INSTITUTIONS ASSOCIATION

Member of Polish Loan Institutions Associations since August '18



The most promising startup at Let's Fintech with PKO Bank Polski June '19



Partnered up with ERIF BIG to launch joint product June '19



Participant @ Fintech accelerator at Plug and Play San Francisco, July - Oct '19



SMCO. FYESFINANCE

• FUNEDA ING



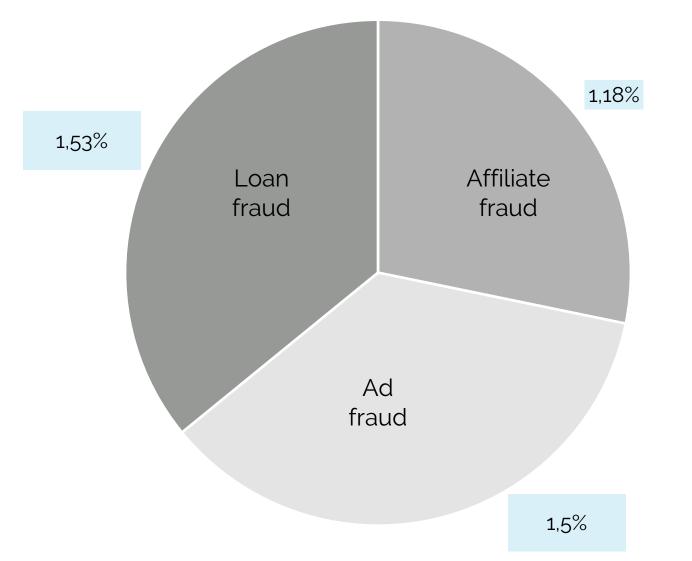




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### Advanced digital players are a subject to ~4% of annual revenue loss due to different types of fraud



### Extensive set of low-level attributes supplement the scoring



Hardware. software and browser intelligence

- GPU characteristics
- GPU detection
- Virtual machine detection
- Number of processor cores
- Mobile device detection
- Mobile emulation detection
- Batterv
- Server OS detection •
- DOM rendering engine anomalies
- HTML guirks
- Special cookies (based on HTML technologies, self regenerating)
- Popular fraudster's tools detection
- Spoofing detection
- Incognito mode detection
- Browser auirks
- Various fingerprints



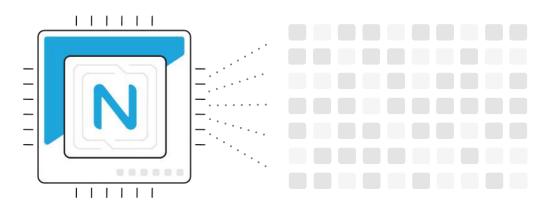
#### **Behavioural data** collection

- Mouse/Touchpad
- movements
- Swipes/Touches or scrolls
- Keystroke dynamics
- Gyro readings
- Accelerometer
- Clipboard usage

#### **Network intelligence**

- IP geolocation
  - TCP/IP stack analysis and anomalies detection
  - Connection type detection (Wi-Fi, cellular) based on low level network analysis and/or browser features checks
  - OS Fingerprinting
  - VPN/Proxy/Tunneling detection
  - Tor detection
- Public IP leak /Local IP leak
- Server-based connection detection

#### ML can go through **125 times more variables** and find complex correlations that increase accuracy of predictions

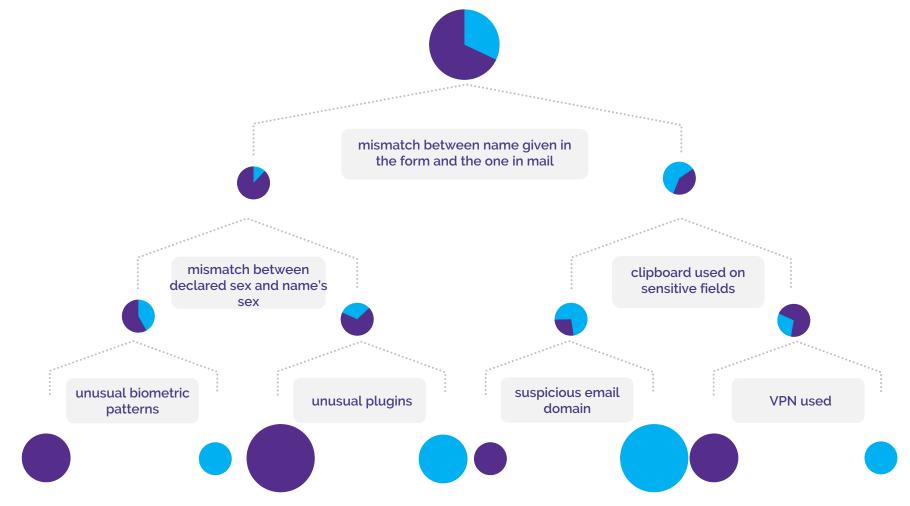


## 5,000+ attributes

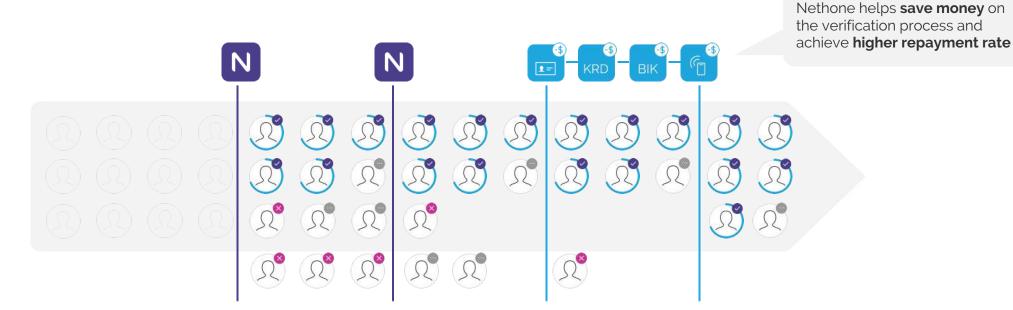
Most importantly, we challenge each declarative data point to pick anomalies



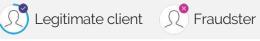
# Looking for similarities to distinguish legitimate user from fraudster



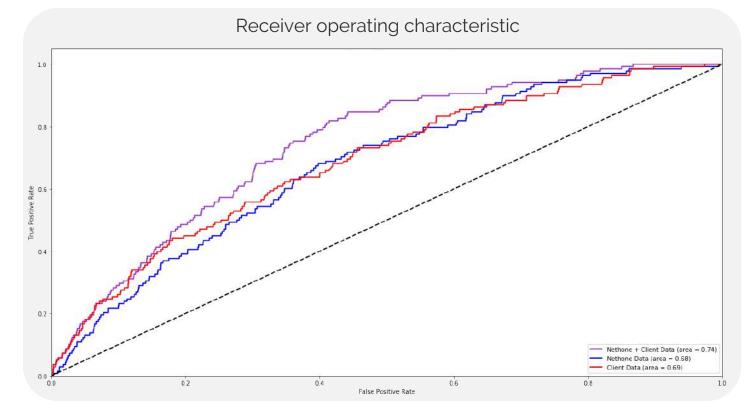
# Provided data feed can enhance internal logic and scores even better, thanks to our proprietary solution



Thanks to profiling, you **can segment clients** more effectively and deny fraudsters or users with suspicious behavior at the very early stage of the process.



# Digital and hard data boost the precision of risk assessment



By adding Nethone data, our client has **increased precision of the model by 0.05**, what directly resulted in higher repayment rate and financial gains.

# The key is to keep models constantly improved - practice makes perfect



### Benefits resulting from digital analysis using deep profiling techniques and machine learning



### Safety

Peace resulting from fraud prevention, that secures your business from anonymisation, automation, and anomalous behaviour.



#### **Risk assessment**

Enhanced **quality and optimisation** of internal credit-scoring systems and processing of the transactions thanks to the 5000+ attributes that enrich the context.

#### Savings

**Real savings** deriving from reduction of the fraud rate, number of nonperforming loans and operational costs.



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