



How AI will change the Financial Industry

MAKE DATA SMART AGAIN 2017

ERIK LEUNG

EVRY

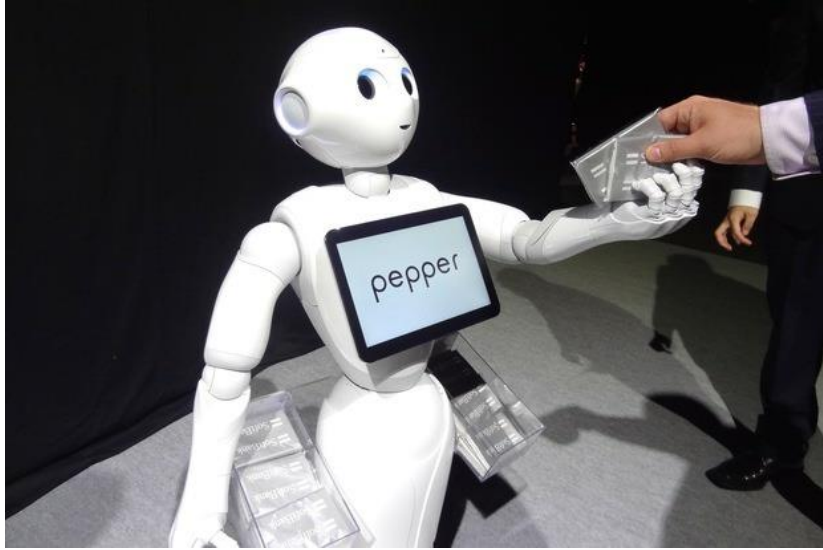


Erik Leung
Cognitive Solutions Lead
EVRY Financial Services

- Responsible for Center of Excellence, Cognitive Computing and AI, in EVRY Financial Services
- Drives technology forward in EVRY through customer projects
- Identify trends of new technologies
- Develop concepts to test new technologies
- Acquire pilot customers for prototype development



Agenda:



- The hype
- What is Cognitive Computing / AI?
- Areas where AI can transform the banking industry
 - Customer engagement
 - Advising
 - Risk profiling

EVRY

AI in media

Japanisk firma erstatter arbeidstakere med kunstig intelligens

34 ansatte blir overflødige.

Halvparten av dagens jobber kan bli erstattet innen 20 år

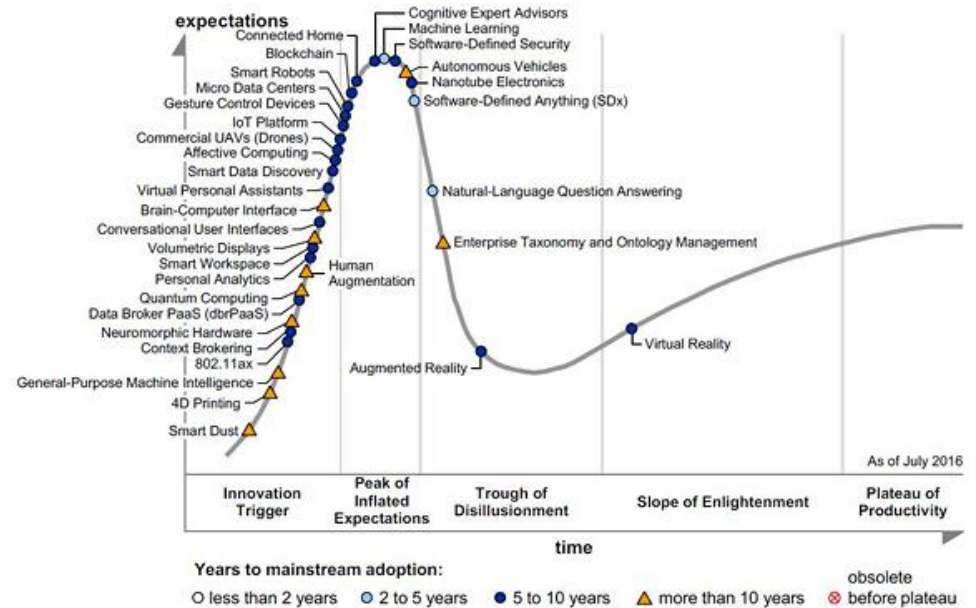
Hjelp, roboten tar over jobben min!

Ny rapport: Roboter kan ta jobbene fra 10 millioner briter innen 2030

- Kunstig intelligens har potensial i seg til å utslette folks privatliv

Cognitive computing hype

- Buzzword of the year in 2016
- High / inflated expectations
- Let's not add oil to fire
 - Be informed
 - Be realistic
 - Be concrete



Source: Gartner (July 2016)

EVRY

Cognitive Computing / AI



- Introduction to Cognitive Computing /AI
- Artificial Intelligence in 2017
- Artificial Intelligence as a tool

EVRY





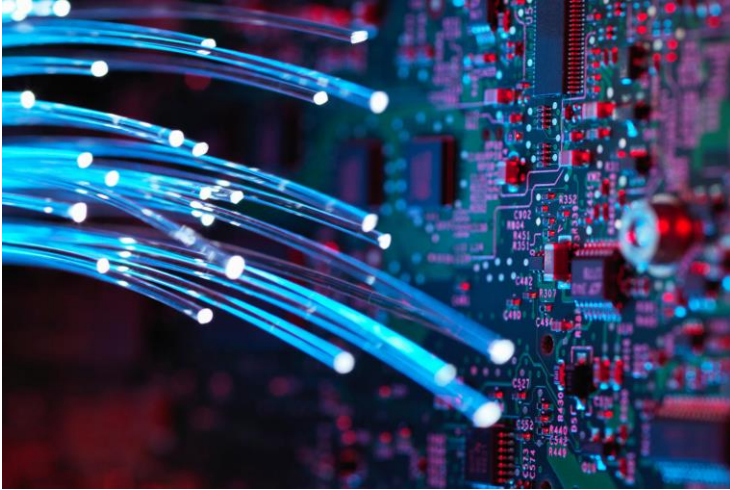
Imagination



Innovation

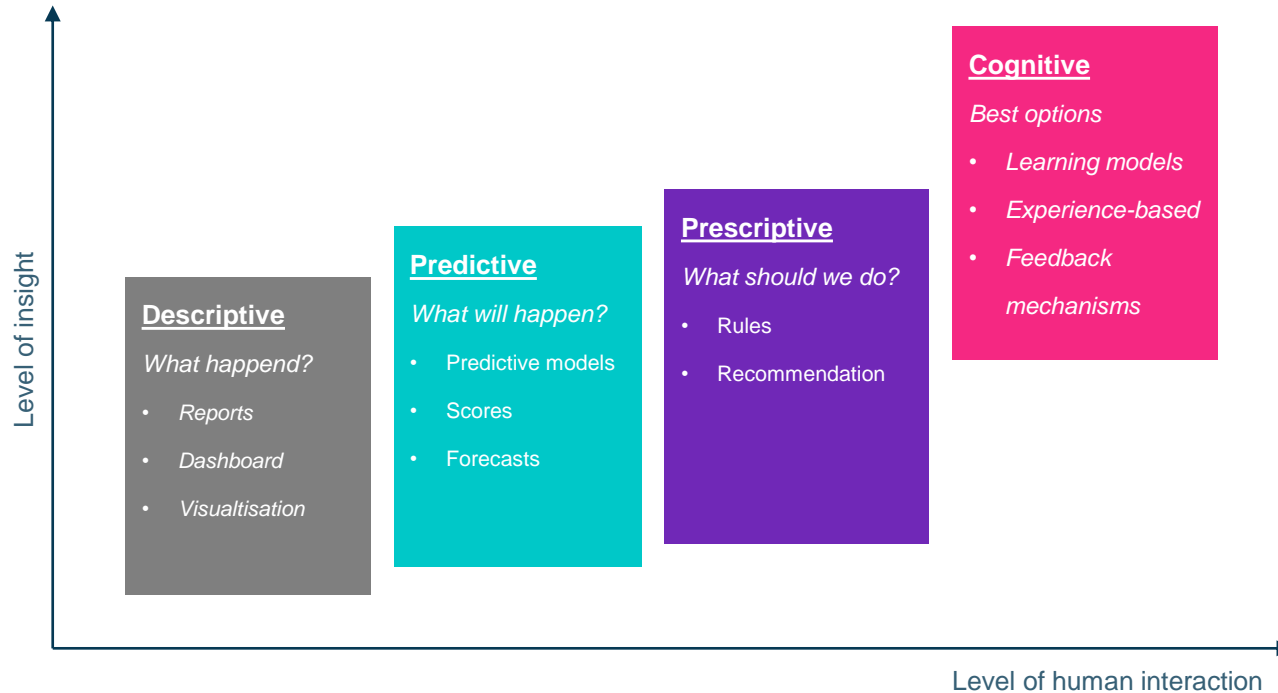


Artificial Intelligence is



“The general term to describe how machines can mimic human capabilities.”

The analytics continuum



Cognitive Computing / AI in 2017



- Old concept with a new meaning
- Better technologies
- We live in an information age

Cognitive computing / AI: The «car» of our mind



Cognitive computing allows:

- Faster decisions
- More informed decisions
- Better actions from decisions

Be realistic

- The tools are here, but we have to use them
- Important to know the possibility and limitation (for now)
- Know what we can deliver
 - Now
 - Next year
 - In 3 years



Be concrete

- Market is flooded with fluffy presentations of possibilities:
 - Watson saved the life of a cancer patient
 - Robots can take over the jobs of ...
 - 8 weeks to deliver a PoC
 - A 300 examples to start asking questions
- Please be aware
 - Watson needs good, historical data / evidence to train
 - 6 to 18 months to train Watson
 - Around 10,000 records of data to train a reliable model



Areas where AI can transform financial industry



- Banking operations
 - Risk profiling
 - Compliance
- Customer engagement
 - Customer insight
 - Customer advising

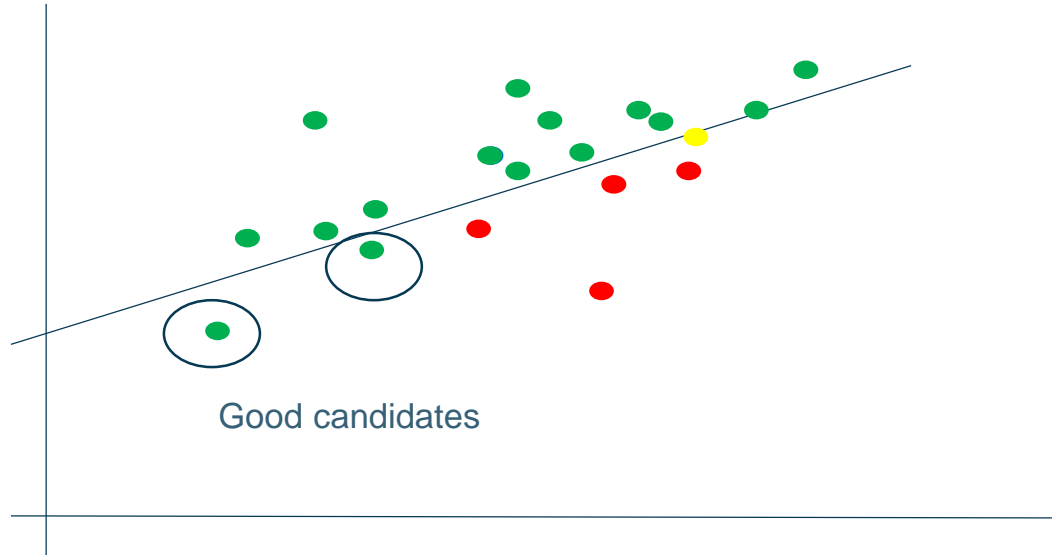
Risk



Credit risk in banking:

- The common denominator in banking
- Dominated by existing, inflexible credit modelling
- Quite mature in personal banking, but not very much so in corporate banking
- Bank loan is one of the major reasons for customer attrition

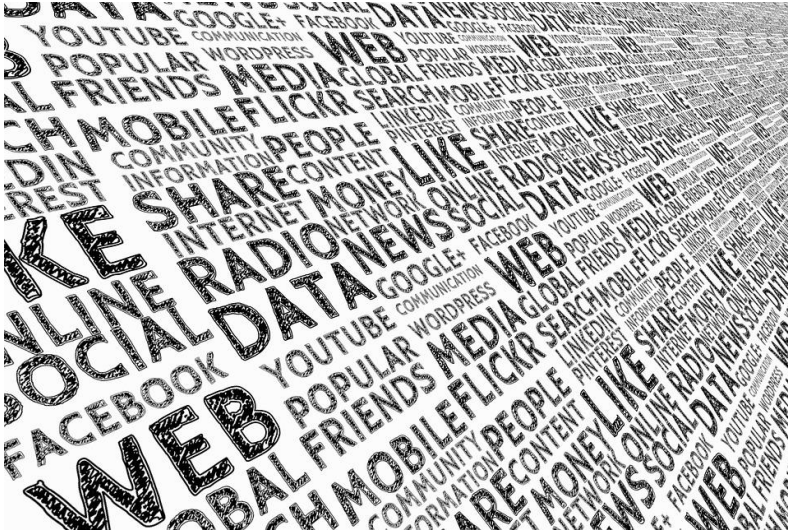
Goal: To find the green



Problem:

- The one size fits all risk model
- Absense of credit history of young students
- Lost opportunities

What more data can we use?



- Personality profiling
 - Communication history
 - Historic correspondences
 - Family background
- Behaviour
 - Social media
- Macro data
 - Job security
- Throw in machine learning and you have the full picture



Compliance

A growing problem:

- Banks are prone to regulatory changes
- Documents require professionals to interpret
- No connection between interpretation and action

Q FINANCIAL TIMES

WORLD US COMPANIES MARKETS OPINION WORK & CAREERS LIFE & ARTS

Artificial Intelligence and Robotics + Add to myFT

Citigroup estimates that the biggest banks, including JPMorgan and HSBC, have doubled the number of people they employ to handle compliance and regulation. This now costs the banking industry \$270bn a year and accounts for 10 per cent of operating costs.

Customer Engagement



Customer
Insights



Customer
Advisory

EVRY



Customer Insights

Know your customers:

- Fintech and Challenger banks know the users much better
- Too much data, too little insight
- Users' expectations grows faster than banks can adapt

EVRY



All Clients

20
Top Action Clients
2 High 18 Med 0 Low

Highest to lowest

CLIENT	TRIGGER	
Alex Anderson	High Client Attrition (Predicted)	→
Ian Gray	Birth of a Child (Detected)	→
Jane Wilson	Relocation (Predicted) New Home Purchase (Predicted)	→
Paige Carson	Charitable Donation (Detected)	→
Robert Taylor	Retirement (Detected)	→

[VIEW MORE](#)

Top News

Sentiment ☒ All ☐ Positive ☐ Negative ☐ Neutral

5
Opportunities

Highest to lowest

- Financial Planning
12 Clients
*5 clients added!
[→](#)
- Retirement Planning
8 Clients
*4 clients added!
[→](#)
- Securities-Based Loan
7 Clients
*2 clients added!
[→](#)
- Mortgage
3 Clients
[→](#)

[VIEW MORE](#)

4
Client Attrition
*1 clients added!

Highest to lowest

85%

Alex Anderson
[VIEW PROFILE](#) [→](#)

Asset Summary

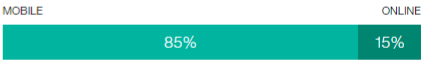


Net New Assets

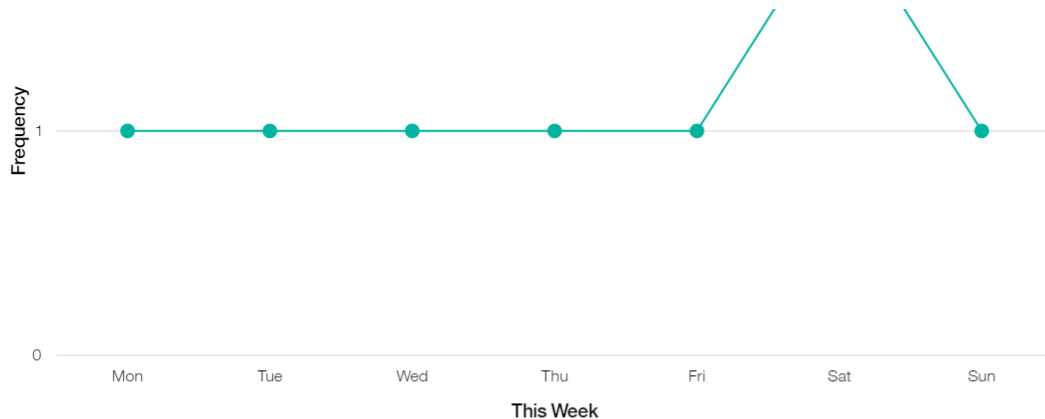
35.2k
Gained this Month

+3.4%
From last Month

Login Activity



9.2%
From last Month



person review meeting

Login Activity Summary

This Week

8

Total # of Logins

+8.2%

From Last Week

Relationship Coach

ATTRIBUTE	MATCH %	DESCRIPTION
Liberalism	100%	This person prefers to challenge authority and traditional values to help bring about change
Cautiousness	89%	This person carefully thinks through decisions before making them
Sympathy	89%	This person feels what others feel and are compassionate toward them
Openness	88%	Refers to the extent to which a person is open to experiencing a variety of activities
Challenge	85%	This person has an urge to achieve, to succeed, and to take on challenges
Curiosity	85%	This person has a desire to discover, find out, and grow
Morality	84%	This person thinks it is wrong to take advantage of others to get ahead
Assertiveness	83%	This person tends to speak up and take charge of situations, and they are comfortable leading groups
Extraversion	23%	The person tends to seek stimulation in company of others

Current Segments (2)

Silicon Suburbanites

Added 10/15/2015

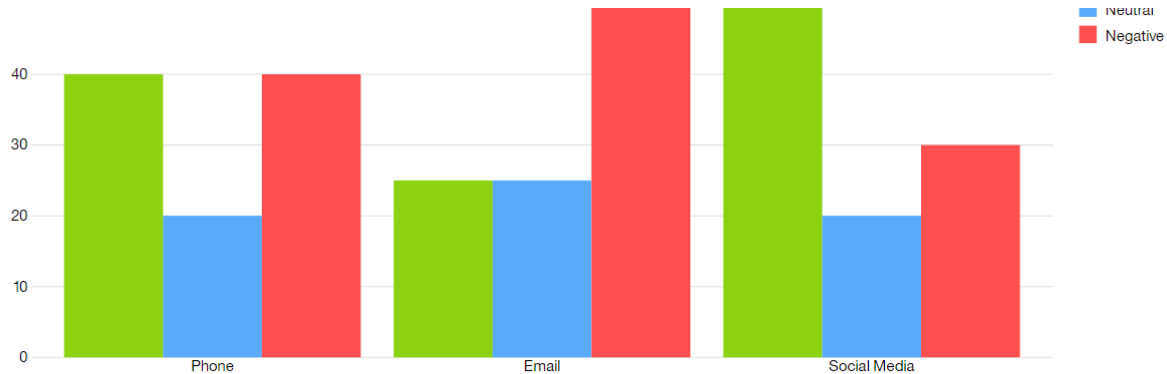
25 CLIENTS

High-Touch Hi-Tech

Added 07/11/2015

15 CLIENTS

5



Conversation Starters

☒ All ☐ Positive ☐ Negative ☐ Neutral

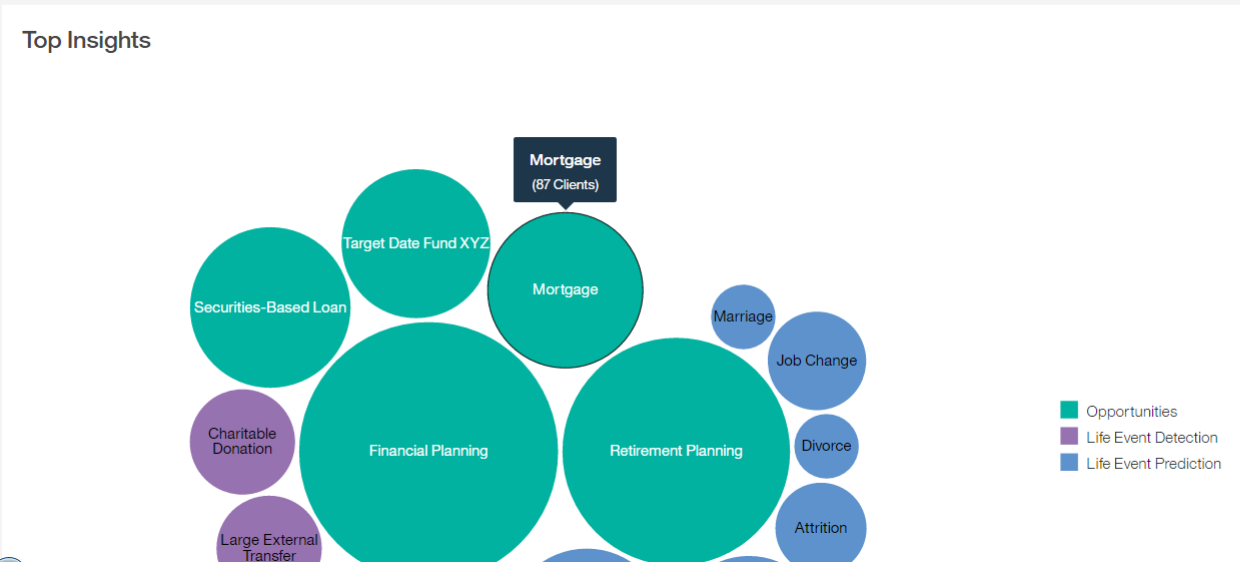
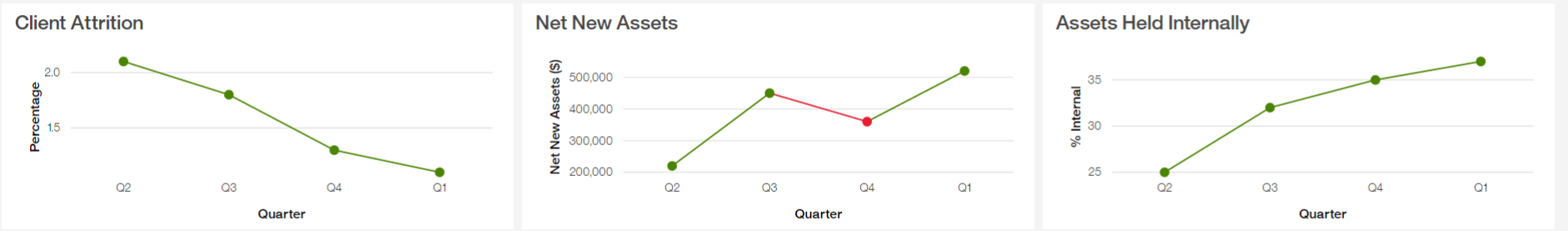
New England Patriots World Travel Water Polo [Add An Interest](#)

TOPICS

NEGATIVE

If LeGarrette Blount has it his way he'll be suiting up for the New England Patriots in Week 1 of next season when they unveil the Super Bowl LI banner and beyond. The soon-to-be free agent running back appeared on "NFL Total Access" on Monday and said that he hopes to continue to play in Foxboro. ...

Source: 247sports.com Today at 1:43 PM



Opportunity List

Financial Planning	242 CLIENTS	*21 clients added!
Retirement Planning	187 CLIENTS	*25 clients added!
Securities-Based Loan	93 CLIENTS	*12 clients added!
Mortgage	87 CLIENTS	*10 clients added!
Target Date Fund XYZ	80 CLIENTS	*5 clients added!



Customer Advisory

Banks are meant to provide financial services,
not transactional services:

- Be knowledgeable
- Be personalized
- Be there

EVRY



Frieda Freya Matthews

97%



Charlotta Durkheim



Charlotta Durkheim



George Beaver



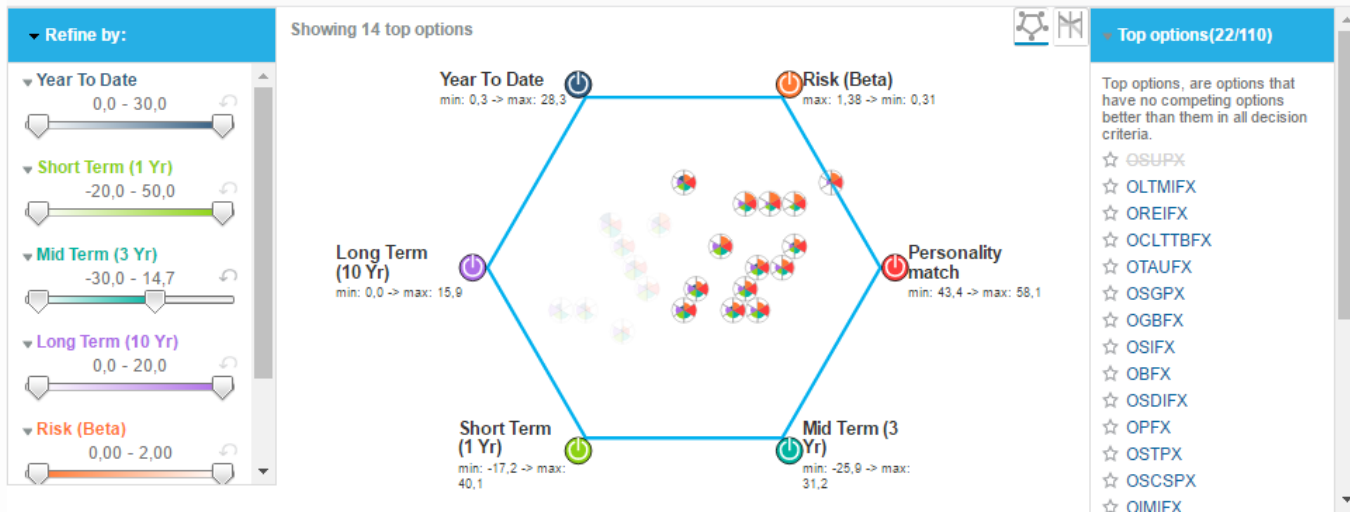
Robin Jakki Tod



Gustav Booch

I would like to choose the best option according to the following criteria:

- ☒ maximize Year To Date, ☒ maximize Short Term (1 Yr), ☒ maximize Mid Term (3 Yr), ☒ maximize Long Term (10 Yr),
☒ minimize Risk (Beta), ☒ maximize Personality match + Add



[< Back to home](#)

Clients > Frieda Freya Matthews

Personal info



Frieda Freya Matthews

Client 108

No info

language

270

posts analyzed

Personality Summary

Matching Funds

Representatives

Investment advisor recommends agents focusing on

building a long-term relationship with your clients. It uses client's personality to select the best matching agent, as the closest personality match or best complementing personality to handle this customer.

Recommended Engagement Times

Thu. in the Evening hour

Recommended Engagement Channel

Social Media

Engagement Strategy

This person appears to be cautious with moderate risk tolerance. Give a well-rounded view of the up and down sides of the fund and outcomes, focusing on how the index fund is organized. They are willing to take risks as long as they understand the terrain.

ChatBot



The ChatBot is a 24/7 financial advisor

- Can handle most inquiries
- Expert agent
- Adapts to the customers' personality
 - To ensure a customised experience

James: Virtual Assistant



Helpful self-service banking capabilities
with a cost effective customer service

6/1/2017
Hei James



6/1/2017

Hei Lisa! Hva kan jeg hjelpe deg med?



6/1/2017

Kor mye er saldoen min?



6/1/2017

Du har 5487 kroner på kontoen din.



6/1/2017

Kor mye har eg brukt på Super`n sist uke?



6/1/2017

Du brukte 453 kroner på Super`n sist uke.



Engage the customer throughout the interaction

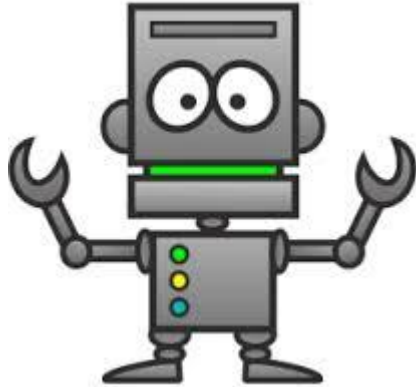
EVERY

Why AI in Banking?

- Your data knows more about your customer than you do, so let the data speak for your customers
- Bank customers are going to get spoiled by the new digital world
- More effective use of resources
- A way of truly differentiating yourselves from competitor ... for now

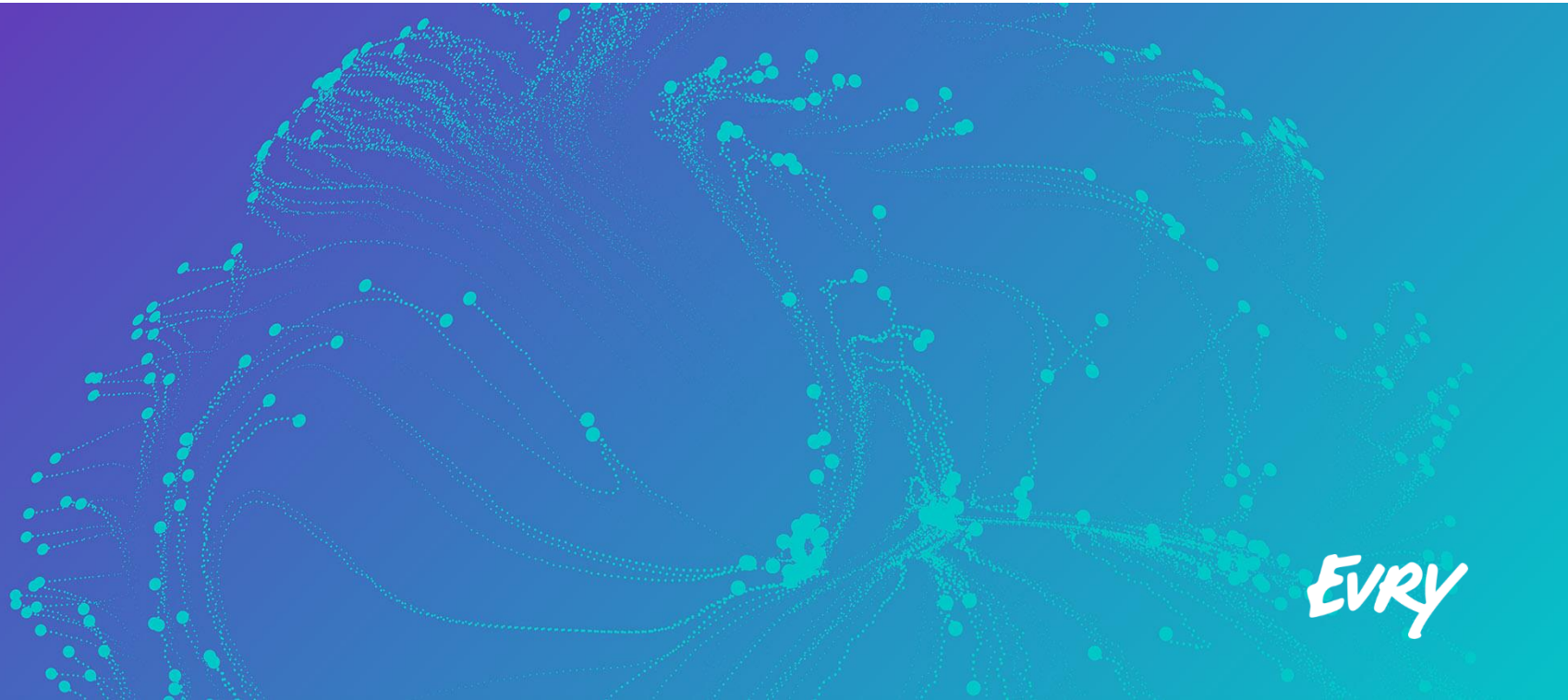


Key takeaways



- Cognitive Computing is going to transform the banking industry
- Technology is hyped up, keep your heads cool
- Many applicable areas, with many upcoming use cases
- Applying Cognitive Computing in financial industry may be the only way to tackle the challenges in the future.

Questions / Comments?





EVERY

Digital
+ Advantage