



Welcome to the **cognitive era.**

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Cognitive Solutions Team
Client Advisor IoT, IBM
[@SCM_Ronald](#)

IBM



The volume, variety and velocity of data is creating an unprecedented opportunity.

2.5 Bn.

gigabytes of new data are generated every day, of which

80% is unstructured.



Healthcare

Each person will generate
1 million Gb.
of health-related data
in their lifetime –
equivalent to about
300 million books



Internet of Things

Smart, connected appliances will grow from **less than 1%** of the market today to **more than half** in 2020

Fig.01



Retail

Consumers post
500 million tweets
and 55 million
Facebook updates
each day



It's not B2B or B2C anymore. It's **Business to Individual**. It's about continual engagement with your customers, partners and suppliers.

By 2020

85%

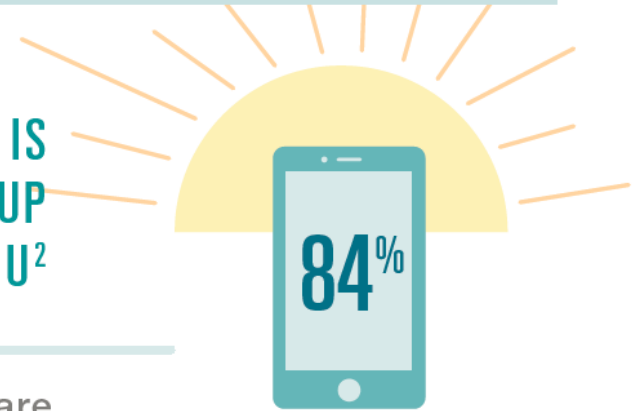
of vendor relationships will be automated¹

84% would trade their personal information for a personalized offer⁴



A BUYER'S MIND IS ABOUT 70% MADE UP BEFORE THEY CALL YOU²

83% of consumers are more likely to do business with brands that allow them to control where, when and how they interact⁵



of smartphone users check an app as soon as they wake up in the morning³

ON SOCIAL MEDIA, USERS EXPECT A

5-minute response time from companies⁶



MIND THE GAP

81%

of companies say they have or are close to having a holistic view of their customers

37%

of consumers say their favorite retailer understands them



How to differentiate in the age of 'Me'

Design Matters
Experience Matters
Moments Matter
Context Matters



There is only one channel now:
the customer.



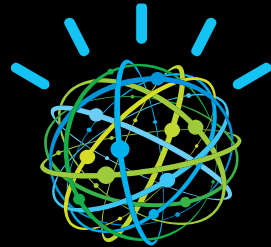




Subscriptions Date on site Following Followers Email addresses
Search engine used Direct message senders Industry
Religion Wish lists Neighborhood
City Trades Coastal vs inland App usage duration Competitors
Check-ins Socio-economic background Number of hashtags used
Lifestyle Zip code Apps deleted Time spent on site Education
Size of Network Time of day of log-in Region/area of the country
Sector Generation Legal status Search strings entered Family life cycle
Clickstream Number of apps on device Revenue size Number of Likes received
Location Geolocation Loyalty card activity
Device used Marital status Sequence of visit Membership in groups
Deposits/withdrawals Family size Age Company name
Gender Device used Direct message recipients Offers engaged with
Income level Videos viewed Number of employees
Purchase history Ratings history Items put in cart Climate
Occupation Device used



Subscriptions Date on site Knowledge Extrapolation Following Followers Email addresses
Sentiment Search engine used Direct message senders Dialog Industry
Religion Tone Wish lists Phonemes Neighborhood Semantics Language Parsing
City Trades Euphemisms Coastal vs inland App usage duration Competitors Similarity Analysis
Phoneme Check-ins Socio-economic background Number of hashtags used Linguistic Analysis
Aggregation Lifestyle Zip code Apps deleted Time spent on site Education Adventurousness
Size of Network Extroversion Latent Semantic Analysis Frequency searches
Sector Hedonism Generation Time of day of log-in Region/area of the country Self-Transcendence
Clickstream Number of apps on device Legal status n-gram Analysis Search strings entered Family life cycle multi-language analysis
Logistical Regressions Location Question Analysis Geolocation Linguistics Number of Likes received Loyalty card activity
Logical reasoning Device used Colloquialisms Marital status Language Modeling Revenue size Sequence of visit Membership in groups
Deposits/withdrawals Reasoning Strategies Family size Logistical Regressions Syllable Analysis Age Agreeableness Company name
Facial Recognition Gender Device used Ontology Analysis Self-consciousness Direct message recipients Offers engaged with
Openness Income level Videos viewed Self-enhancement Number of employees Concepts
Purchase history Conscientiousness Q&A Reasoning Strategies Items put in cart Climate Device used
Occupation Ratings history



IBM Watson

Digital Intelligence + Digital Business



Question and Answer



Speech to Text



Concept Insights



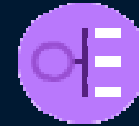
Machine Translation



Personality Insights



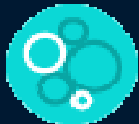
Message Resonance



Concept Expansion



Relationship Extraction



Visualization Rendering



Text to speech



Tradeoff Analytics



Visual Recognition

Watson is a set of cognitive capabilities



Watson Personality Insights

How does
it **work?**

Linguistic analytics and personality theory applied to unstructured digital communications

Where does it
show up?

Fine-tuning products for target audience
Discovering customers' preferred interactions
Learning how clients' customers compare with competitors' customers

IBM

Frans Reichardt (*klantenluisteraar*)

You are social, somewhat verbose and can be perceived as shortsighted.

You are down-to-earth: you prefer facts over fantasy.

You are assertive: you tend to speak up and take charge of situations, and you are comfortable leading groups.

And you are respectful of authority: you prefer following with tradition in order to maintain a sense of stability.

Your choices are driven by a desire for well-being.

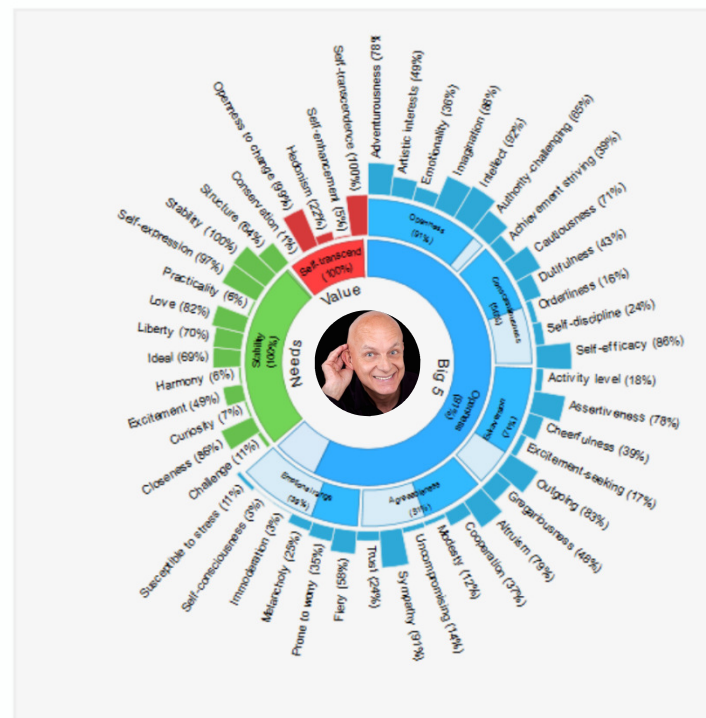
You are relatively unconcerned with tradition: you care more about making your own path than following what others have done.

You consider achieving success to guide a large part of what you do: you seek out opportunities to improve yourself and demonstrate that you are a capable person.

You are likely to _____
Buy eco-friendly
Reply on social media

You are unlikely to _____
Click on an ad
Follow on social media
Buy healthy foods

Visualization of Personality Data



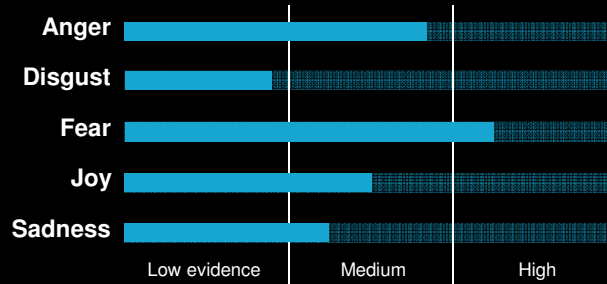
Analyze your audience

Try it for free:
<https://watson-pi-demo.mybluemix.net>

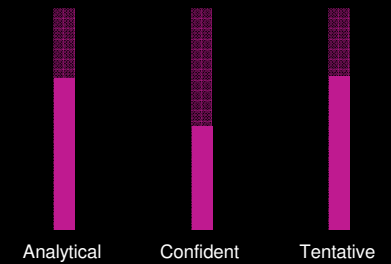
IBM Watson Tone Analyzer



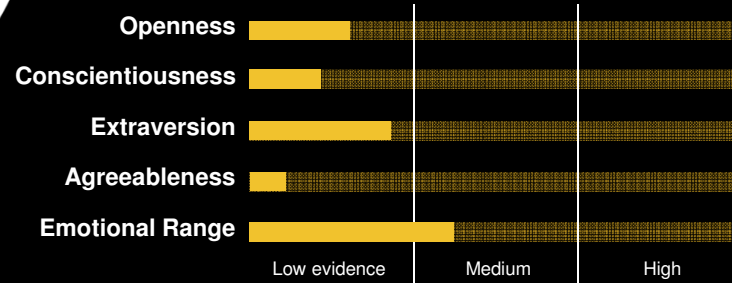
Emotion summary (probability)



Language Style summary (raw score)



Social summary (raw score)



A dress that
understands its fans





Core Technologies

Author Extraction
 Colloquialism Processing
 Concept Expansion
 Convolutional Neural Networks
 Deep Learning
 Dialog
 Entity Extraction
 Entity Resolution

Feature Engineering
 Feature Weighting
 HTML Analysis
 Image Processing
 Information Theory
 Keyword Extraction
 Language Identification
 Language Modeling

Learn To Rank
 Linguistic Analysis
 Linguistic Query
 Machine Learning
 Machine Translation
 Message Resonance
 Multi-Dimensional Clustering
 Multilingual Training

Natural Language Processing
 Neural Networks
 Ontology Analysis
 Pareto Analysis
 Passage Answering
 Phoneme Aggregation
 Question Analysis
 Relationship Extraction

Rules Processing
 Scalable Searching
 Similarity Analytics
 Statistical Language
 Statistical Language Parsing
 Processing
 Syllable Analysis

Text Extraction
 Tradeoff Analysis
 Visual Analysis
 Visual Rendering
 Visualization
 Voice Synthesis And
 Customization



Draws on Five Core Technologies

Author Extraction
Colloquialism Processing
Concept Expansion
Convolutional Neural Networks
Deep Learning
Dialog
Entity Extraction
Entity Resolution

Feature Engineering
Feature Weighting
Html Analysis
Image Processing
Information Theory
Keyword Extraction
Language Identification
Language Modeling

Learn To Rank
Linguistic Analysis
Linguistic Query
Machine Learning
Machine Translation
Message Resonance
Multi-Dimensional Clustering
Multilingual Training

Natural Language Processing
Neural Networks
Ontology Analysis
Pareto Analysis
Passage Answering
Phoneme Aggregation
Question Analysis
Relationship Extraction

Rules Processing
Scalable Searching
Similarity Analytics
Statistical Language
Statistical Language Parsing
Statistical Language Processing
Syllable Analysis

Text Extraction
Tradeoff Analysis
Visual Analysis
Visual Rendering
Visualization
Voice Synthesis And Customization

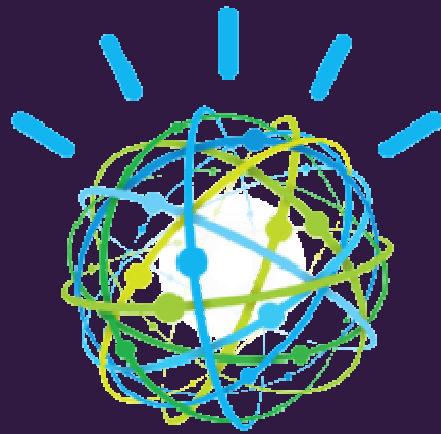


Learning

Evidence-based

Analytics

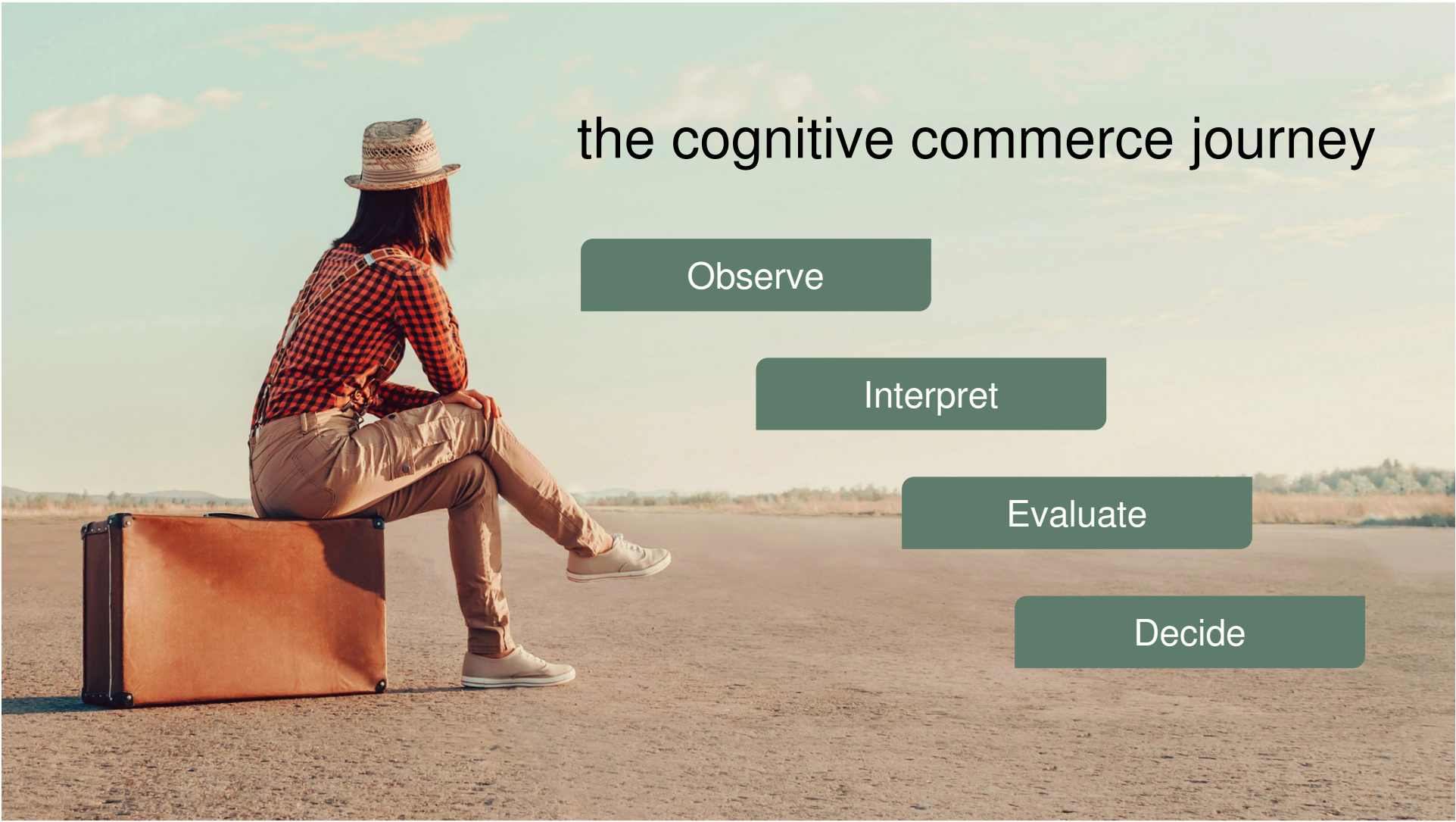
Natural Language



Understand. Reason. Learn. Interact.

Cognitive Technologies

Hypothesis Generation



the cognitive commerce journey

Observe

Interpret

Evaluate

Decide



Your Digital Personal Shopper

Opportunity

Deliver a more personalized online shopping experience for the North Face Fall/Winter 2015 outerwear selection.

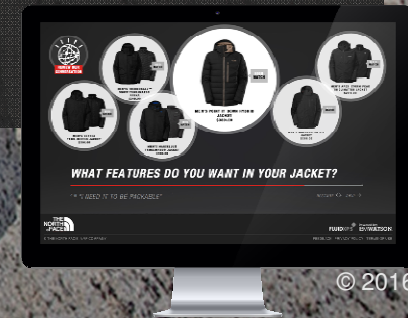
Approach

Construct a cognitive application with partner Fluid that let shoppers ask Watson questions about their travel plans & apparel needs and receive the appropriate outerwear recommendations.

Results

Shoppers averaged 2 minutes with the platform & generated a 60% click through rate to the product recommendation. 80% said they'd use it again.

Try it: www.thenorthface.com/xps





REVIEW OUR CONVERSATION



HIGH MATCH

WOMEN'S RUBY RASCHEL JACKET \$130.00



HIGH MATCH

WOMEN'S BOMBAY JACKET \$99.00



HIGH MATCH

WOMEN'S SHELLROCK JACKET \$129.00



MED MATCH

WOMEN'S PR RESOLVE JACKET \$90.00



MED MATCH

WOMEN'S DRYZZLE JACKET \$199.00



HIGH MATCH

WOMEN'S CANYONWALL JACKET \$99.00

FOR WHAT ACTIVITY OR SPORT WILL YOU WEAR THIS JACKET?

e.g. "I WANT TO USE IT TO BE VERSATILE"

RESTART ↻ SKIP →

BETA:
Thenorthface.com



Producing More Popular Pro Athletes

Red Bull

Opportunity

Help Red Bull athletes understand & improve their brand expression

Approach

Use Watson Personality Insights to analyze the athletes' social posts & video interviews.

Results

Watson was used in workshops to provide recommendations about style, attitude, and form that improved connecting fans with the brand



Can flavor help you find love?

Opportunity

Unilever updated it's biggest brand Knorr that is sold in 87 countries with a global campaign that asks whether flavor can help you find love

Approach

Knorr created a Flavor Profiler in partnership with IBM that identifies your flavor profile and serves up recipes

Results

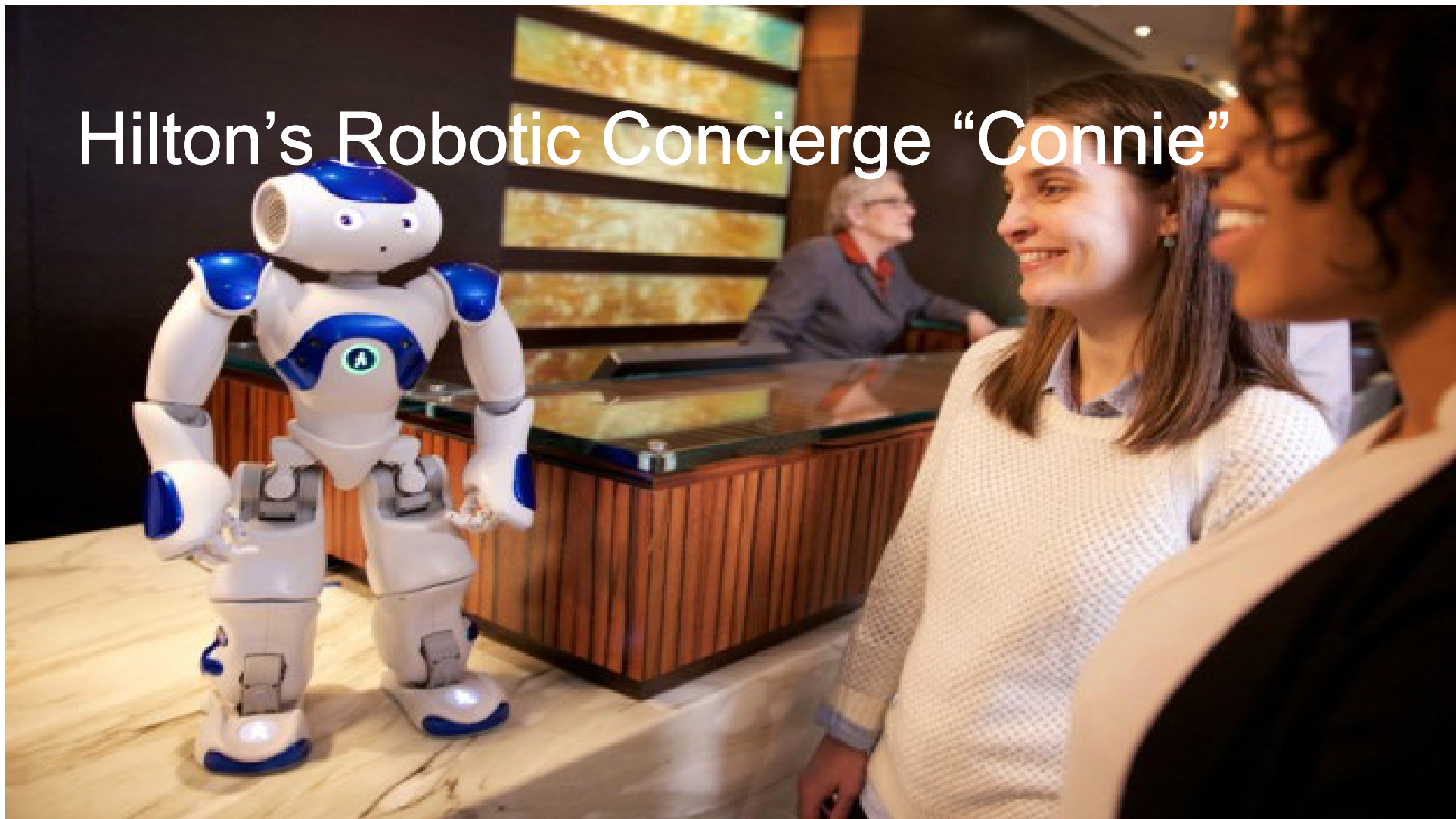
Research among 12,000 people in 12 countries, found that 78% of people are more likely to be attracted to someone who enjoys the same flavors.



myflavour.knorr.com

© 2016 IBM

Hilton's Robotic Concierge "Connie"





**What's Unique About Weather?
At the Scale of 26 Billion Forecasts Per Day**

Retail: Weather-based Advertising



Precise, hour-by-hour
data by location



Understand impact of
Wx on retail sales by
location and season



Run geo-located,
weather-triggered ads
at scale

24%

increase in sales YoY





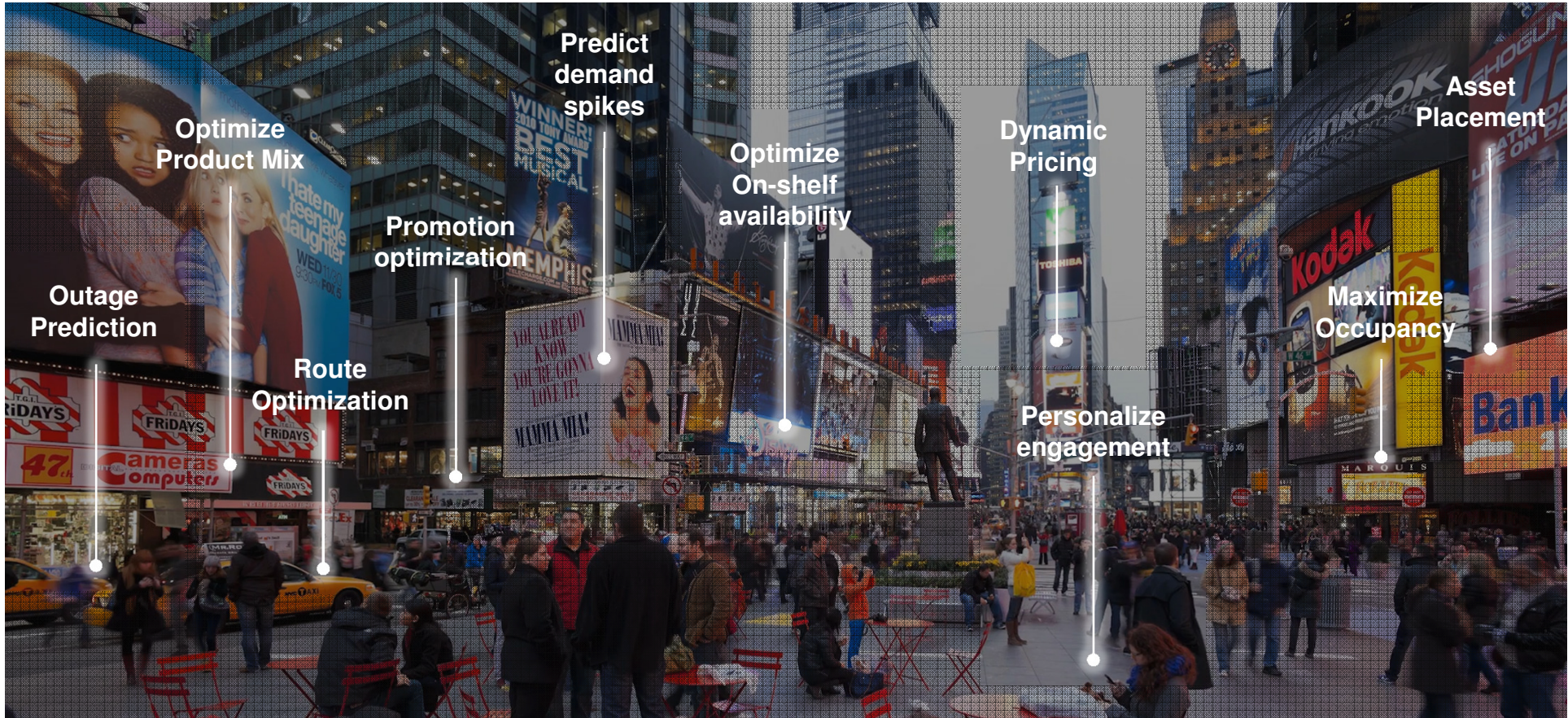
Impact for Amsterdam Marketing?



Cities are ALIVE... with pockets of opportunities everywhere



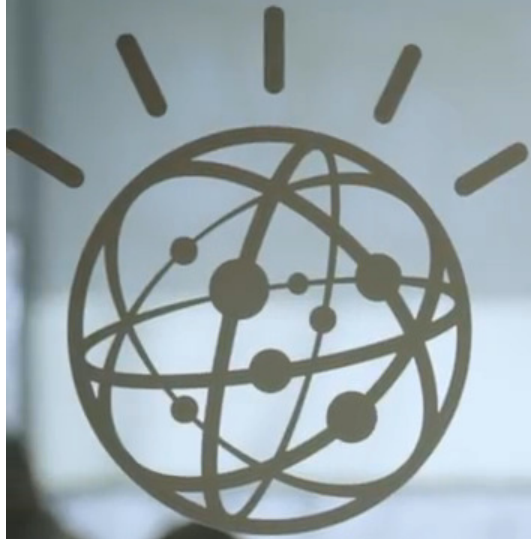
Data and Signals reveal hidden city dynamics



... which unlocks business opportunities

... across industries





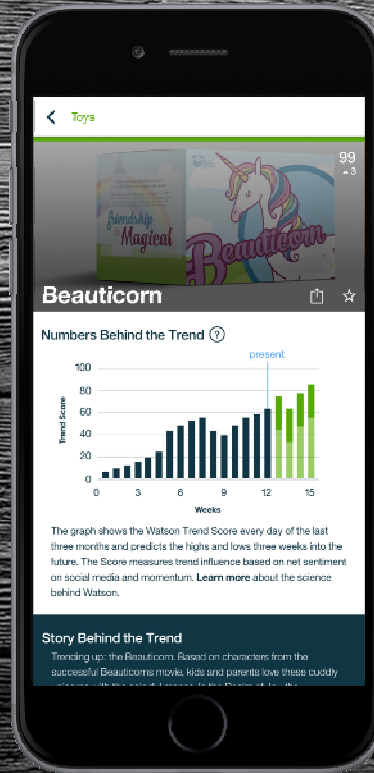
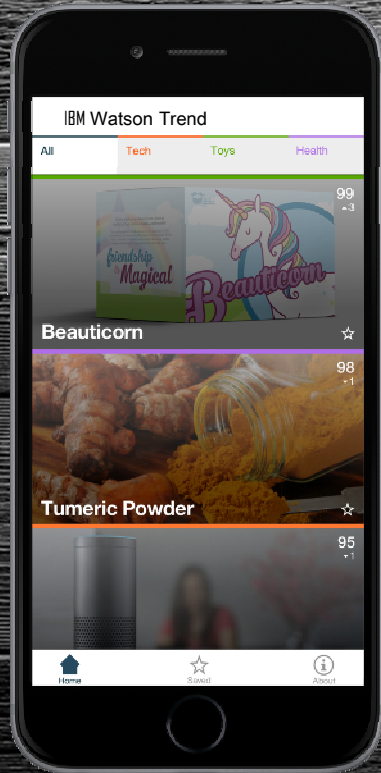
IBM **Watson**
Cognitive
Communications
Center

above
the clutter
with Pete Krainik

how is IBM
Cognitive Commerce
helping retailers &
brands?



Outthink your competition: know what is trending and why



Think like a customer: engage with real time personalised content

IBM Marketing Solutions help marketers to make better decisions, automate real-time personalisation and coordinate execution across systems

The image displays two overlapping screenshots of the IBM Real Time Personalization interface. The background screenshot shows a dashboard with a grid of content cards for various CityCool pages. Each card displays the number of zones, an engagement percentage in a circular gauge, and the last modified date. The foreground screenshot shows a wireframe editor for a landing page, featuring a search bar, a list of content zones, a main content area with a product introduction and images, and a rules palette on the right.

Page Name	Zones	Engagement	Modified on
CityCool landing page	5	56%	Sep 30 2015
CityCool women's sportswear	4	17%	Sep 28 2015
CityCool men's sportswear	8		
CityCool sports accessories	10	75%	Sep 25 2015
CityCool sport watches	3	36%	Sep 24 2015
CityCool check out page 1	5		
CityCool check out page 2	7		

Wireframe Editor Content:

- Search bar: Search
- Content Zones List:
 - landing page (5)
 - Sign in
 - Departments
 - Search
 - zone 4
 - zone 5
 - women's sportswear (4)
 - men's sportswear (8)
 - sports gear (2)
 - sports accessories (10)
 - sports watches (3)
 - check out page 1 (5)
 - check out page 2 (7)
- Main Content Area:
 - CityCool logo
 - Introducing our new watch SLEEKFIT 2.0
 - Image of SleekFit 2.0 smartwatch
 - View SleekFit 2.0 models
 - Four product images with prices: \$299.99, \$299.99, \$299.99, \$299.99
- Rules palette:
 - Templates: Discount, Points, Membership
 - Custom: SF 1.0 Dis..., SF 1.0 Pe..., SF 1.0 Men...
 - Advanced

Outthink the market: trade harder

IBM Commerce Insights
Logout

Store Performance
Sleek Fit 2.0

Aurora (US)

\$1,420,900

sales

24,000

orders

\$59.20

average order value

34018

items ordered

5%

conversion rate

102,104

views

Last updated 13:30

Category performance

	Sales	Forecast	Variance	Sold	Forecast	Variance
Aurora (US)	\$1,420,900	\$1,224,900	16.0%	34,649	31,850	8.8%
Womens	\$800,900	\$609,900	31.3%	13,009	10,000	30.1%
Girls	\$235,000	\$210,000	11.9%	8,000	7,800	2.6%
Activewear	\$220,000	\$210,000	4.8%	8,000	7,800	2.6%
Complete Sleekfit	\$165,000	\$195,000	-15.4%	5,640	6,250	-9.8%

Store product rankings

Sales \$7,950	Sales \$5,720	Sales \$4,200	Sales \$4,189	Sales \$4,165	Sales \$3,956	Sales \$3,855
Forecast \$5,500	Forecast \$4,000	Forecast \$3,690	Forecast \$3,676	Forecast \$3,700	Forecast \$3,500	Forecast \$3,450
Variance 45.0%	Variance 43.0%	Variance 14.0%	Variance 14.0%	Variance 13.0%	Variance 13.0%	Variance 12.0%

Details



location

Blockchain

2016 Online Payments Trends to Look Out For

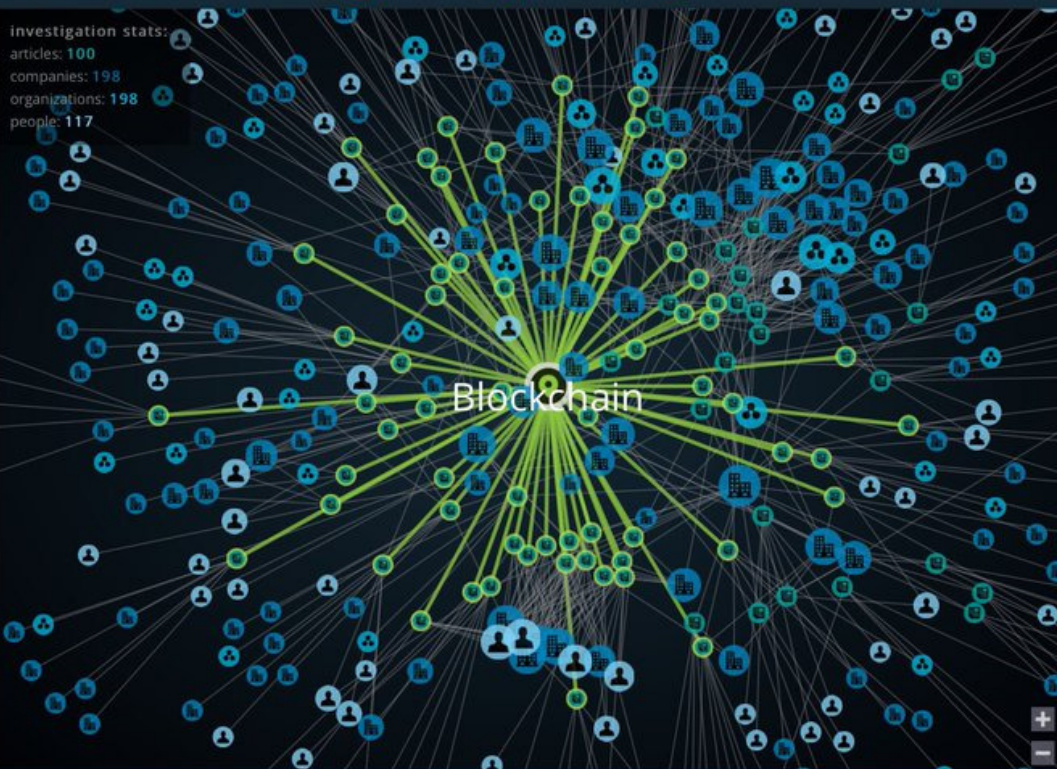
technology and computing
Thu Mar 24 2016
01:00:00 GMT+0100 (CET)

p> The online payments market

News Network

show/hide: companies, organizations, people

investigation stats:
articles: 100
companies: 198
organizations: 198
people: 117



Locations

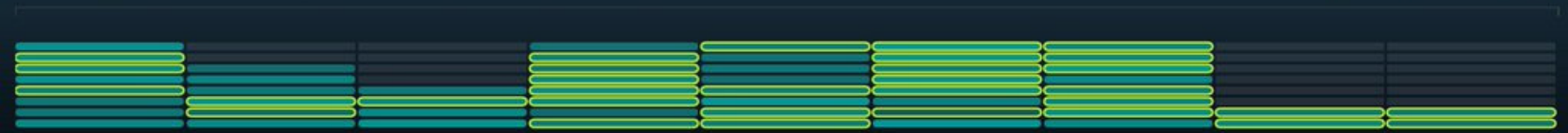
- Blockchain
- United States
- Australia
- Bitcoin
- Ethereum
- United Kingdom
- Aachen
- Germany

Topics

- People Companies Orgs
- Royalties
 - Monetary policy
 - Decentralization
 - Regulation
 - Computer program
 - Investment management
 - Private equity
 - Insurance
 - Money supply
 - Ballot
 - Asia-Pacific
 - Economics
 - Voting system
 - Futurology
 - Computer
 - Cost
 - Crimes
 - Security
 - Mining
 - World War I
 - Cloud computing
 - Contract
 - Investment
 - Free cash flow
 - Central bank
 - Venture capital
 - Money
 - Voting
 - Elections
 - Credit card
 - Cash flow
 - Java
 - Law
 - Equity
 - Income statement
 - Real estate
 - Finance
 - Managing director
 - Cryptography
 - Engagement ring
 - Mutual fund
 - Currency
 - Computing platform

Timeline

news articles across 9 days, 0 hrs, 0 min, 0 sec up to the current date: 3/27/2016





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