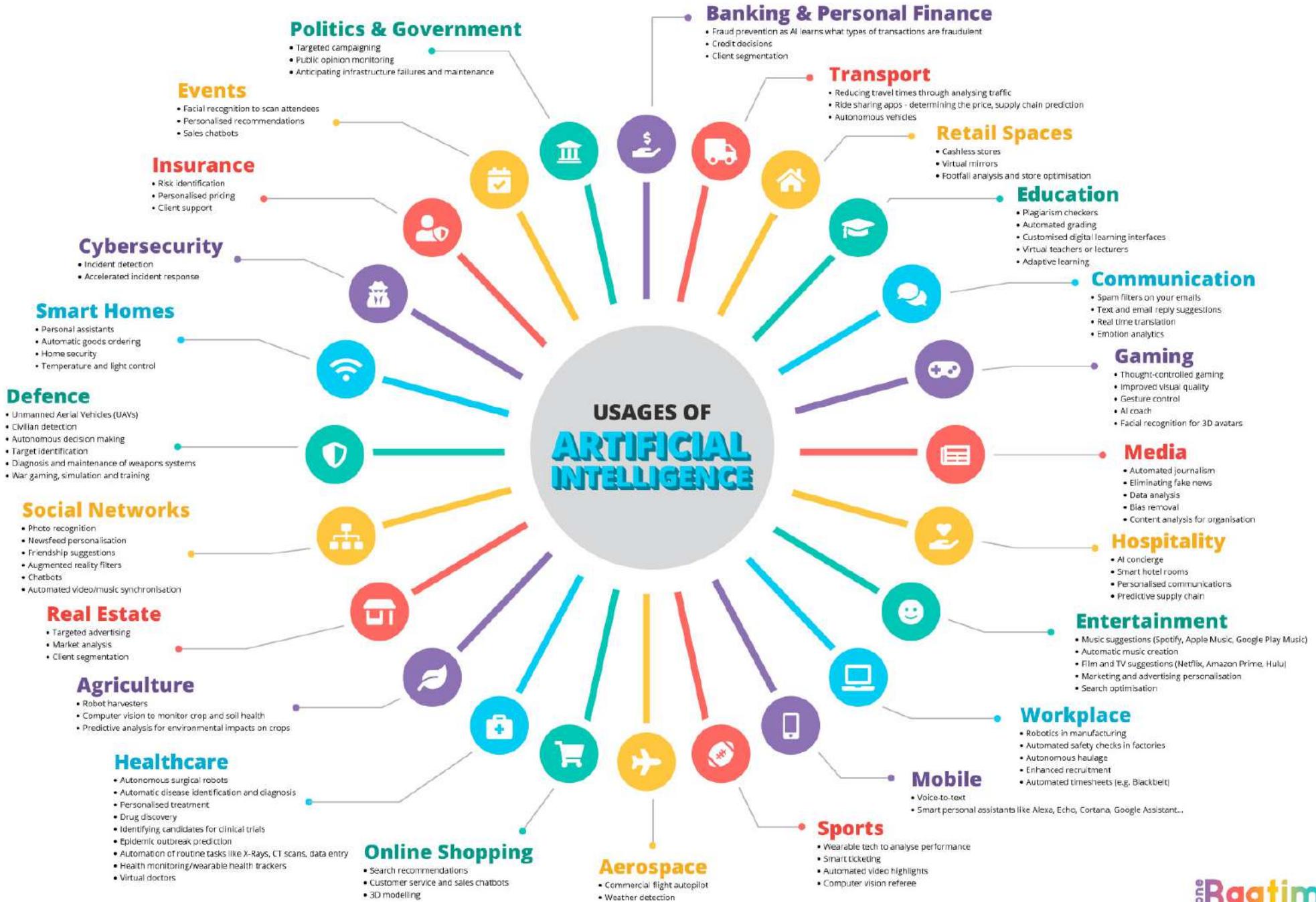


Big Data & AI in Business

How to become a data driven business

Session 6: Value Identification in different industries

David G Pisano



Travel



What do you picture when you think about traveling?

Before



What
happened?

Now



Travel industry is facing more challenges now

UNWTO estimates 25 million tourist arrivals in 1950. 68 years later this number has increased to 1.4 billion international arrivals per year.



New types of consumers (millennials/
emerging countries...) -> New
expectations

More pressure to offer competitively priced offerings and deals

New players (Airbnb/ booking/ low cost airlines...)-> more competition

Customer Experience

- Improving the NPS* through Natural Language Processing.
- Sentiment Analysis or Topic Detection are being applied in the travel industry to dynamically understand which services are being well or bad perceived by the customer.
- Schiphol Airport example*.

Dynamic Pricing

- Estimate the conversion probability of each customer
- Forecasting algorithms can increase price reactivity to global trends, limited offers or special events using techniques like self-learning algorithms (such as Deep Reinforcement Learning).

Personalized Marketing

- Provide intelligent recommendations, based on previous data gathered about users.
- Direct messaging.

Representative AI Use Cases Along the Customer Journey

Demand generation (personalized offers, marketing messages)	Booking (reservations by voice, smart recommendations)	Check-in (biometrics, facial recognition)	Guest experience (amenities, customer preferences)	Service recovery (active resolution)	Guest compensation (optimization by customer or event)
--	---	--	---	---	---



DREAM AND PLAN

BOOK

TRAVEL

ENGAGE



Marketing spending
(mix optimization, deaveraging)

Yield management
(advanced forecasting, machine learning)

Network optimization
(scheduling, disruption management)

Maintenance
(predictive maintenance, robot-assisted supply chain and robotics)

Labor scheduling
(demand-driven staffing, optimizing)

Navigation
(optimization of cost and speed)

Contact center
(natural-language-processing sentiment analysis, chatbots)

Travel

FLYZOO

Alibaba, in its new hotel FlyZoo, opened in December 2018, makes intensive use of Big Data and AI.

In order to tackle increasing labour costs, Alibaba has decided to launch a new hotel, where staff is not needed and everything is automated.

The hotel will use face recognition to identify the guests, this will be allowed by the scan of the ID at the check in and voice commands will allow the customers to control everything, including room service.

Even payments, at checkout, will be handled by Alibaba's payment service, Alipay.



London, United Kingdom

New York, NY - All airports

02/10/2013

02/15/2013

Find Flights

Hide toolbox

Price alert
Fare charts
Airline Matrix
-/- 3 days

Price Trend



Prices may rise within 7 days

Stops

- nonstop \$164
- 1 stop \$86
- 2+ stops \$149

Times

Take-off London
Sun 8:00a - 10:30p

Price trend & tip details

Prices may rise within 7 days

58% Confidence: Our model has been 58% accurate on forecasting whether these fares will rise or stay within \$20 of the current price over the next 7 days. The forecast is based on analysis of historical price changes and is not a guarantee of future results.

[See explanation](#)

Time to buy? See the rise and fall of prices over the past 90 days.

Fare Trend for Flights Departing Feb 10 2013



Return ▾ 1 Adult ▾ Economy ▾ 0 bags ▾

Dublin, Ireland (DUB) x

Price rise expected

You should buy now

Prices are expected to rise by €15 within 1 day

Buy now

€15 rise is expected in the next 1 days

Track prices

 Track prices

298 of 568 flights

lastminute.com | Sponsored



Stops

- Direct €30
- 1 stop €85
- 2+ stops €139

Best Cheapest

- | | 06:25 - 10:00 | 10:35 - 12:20 |
|--------------------------|---------------|---------------|
| DUB Dublin - MAD Barajas | direct 2h 35m | direct 2h 45m |
| MAD Barajas - DUB Dublin | | |

€30Standard
Ryanair

Example 1: End to end baggage handling, monitoring, tracking, and reporting

Infosys Digital practice worked with a US airline company to map out the entire business process and assess current MBR (Missed Bag Rates), and then complied with new IATA norms to bring in new technology to reduce the MBR to under 2 missed bags / 1000.



This solution won an IATA award in 2017 in Barcelona

Example 2: AI technology used for face to face Customer service interactions



Example3: In 2018 Delta unveiled the first biometric terminal in U.S. in Atlanta

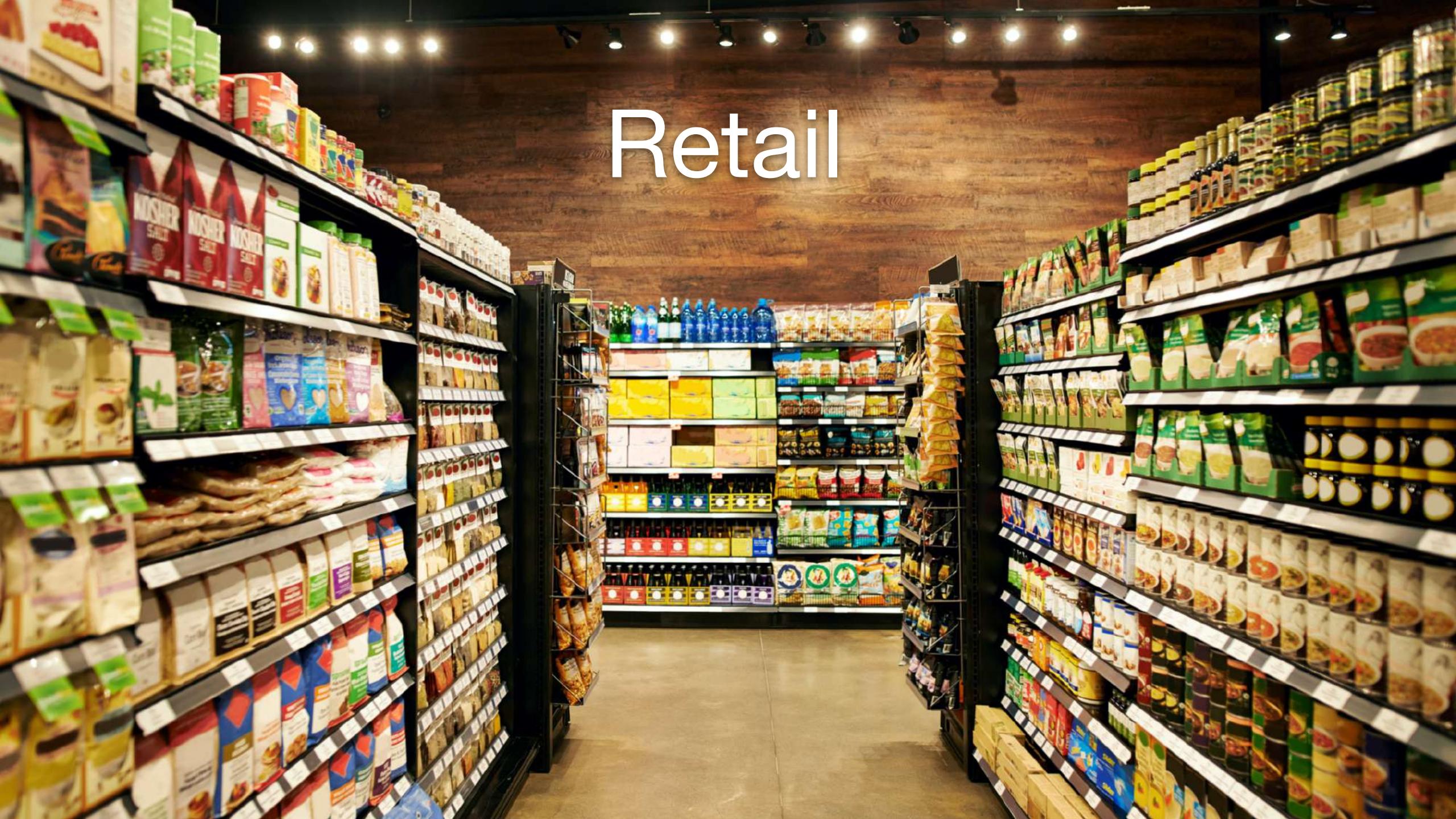
Customers can use facial recognition technology from curb to gate



Empowering employees with more time for meaningful interactions with customers.



Retail



THE NEW COGNITIVE DISRUPTION



Real – Time Engagement: customers want to skip the line and use direct communication channels for support.



Unique Personalization: customers expect retailers to keep pace with their mobility and provide consistent personalization either in the digital & physical shop.



Consumers Get Price Savvy: paying less for more and bragging about it has become a trend. Today the price has to reflect the value and convenience.



The Planet Friendly Movement: the green generation consumers are making sustainable shopping a priority. Sustainability is no longer a choice.

To meet these elevated needs retailers need to reinvent their service and set new goals:

- > **BECOME MIND – READERS:** identifying consumer needs before the customer and their competitors do so. How? By gathering their digital foot print and find what make customers tick.
- > **EMPOWER LOGISTICS NETWORKS:** retailers need to re-design their supply chain for flexible ecosystems that quickly respond to consumer's shifting preferences.
- > **SYNCHRONIZE ONLINE & OFFLINE:** digital & physical channels have to blend together. Treating these as two distinct channels can lead to operational inefficiencies and seamless experiences.

AI & BIG DATA TRENDS SHAPING THE RETAIL INDUSTRY

Virtual Reality

VR shopping blends the offline & online experience for buyers. It's being incorporated into physical location to keep customers engaged and enhance their experiences.

Chatbots

Improving the customer experience by offering on demand and always-available digital assistants.

AI – supported conversational assistants use natural language to help consumers while shopping and redirect to a human expert when necessary.

Emotional Response

By interpreting facial and audio AI interfaces identify consumers emotions and mindset and deliveries appropriate products recommendations and support according to the shopper's mood.

Augmented Reality

AR functionality has been used by retailers mainly for advertising and immersive product visualization.

This application provides shoppers the experience of virtually trying or viewing before buying.

Dynamic Outreach

Advanced CRM and marketing system gather customer behaviors and preferences through repeated interactions, to develop a detailed shopper profile and use this data to deliver tailored content.

Personalized Storefront

Smart retail spaces recognize shoppers and adapt pricing and product display through biometric recognition to custom personalized shopping experiences for each visitor.

Responsive R&D

Deep Learning algorithms collect and interpret customer feedback and sentiment, as well purchasing data to develop the next-generation product designs and better correspond to the needs in the marketplace.

Demand Forecasting

By analyzing the insights from marketplace, consumer and competitor data, AI tools can forecast industry shifts and make proactive changes in the company's business strategies.

Operational Optimization

AI – supported logistics management systems provide real time data on the retailer's inventory, staff, distribution and delivery schemes.

This enables the fulfillment of chains and supply, while meeting customers expectations for high-quality immediate access and support.

Beacons

Beacons are used to get customers into the physical stores.

This device uses Bluetooth to send push notifications to the customer's smartphone when they're in the surrounding physical areas.

Adaptive Homepage

Through AI systems mobile & digital portals evolve according to user's digital experience to create hyper-relevant displays for interaction.

Retailers can easily customize the e-retail experience to reflect current context, according to previous purchases and shopping behavior.

AI Use Case Prism for Retail

Retail – 23 AI Use Cases



Machine Learning Use Cases In Retail



Demand
Prediction



Price
Formation



Logistics



Merchandizing



Personalized
Offers



Fraud
Detection



Churn
Prediction



Location
Optimization



Sentiment
Analysis

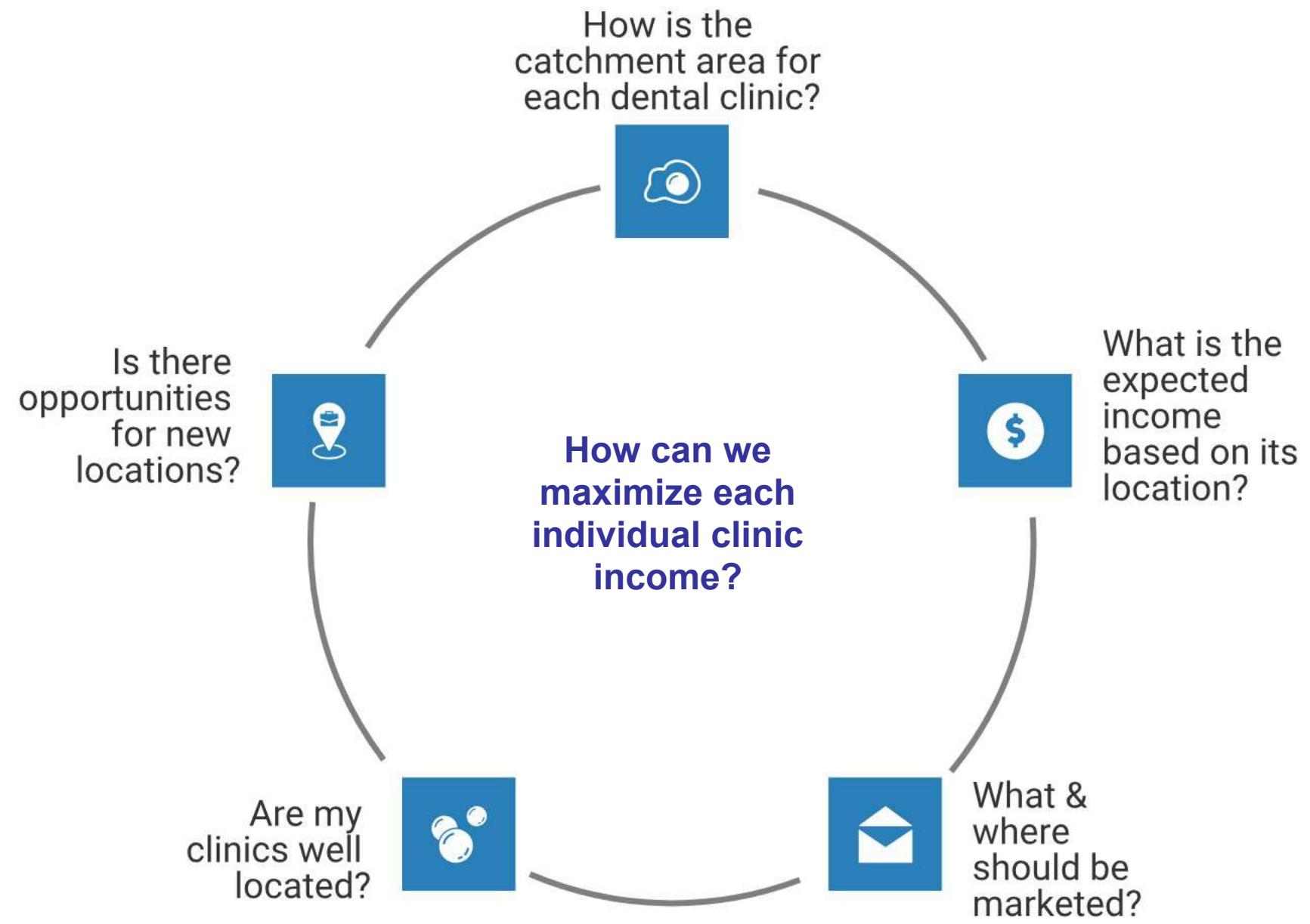


Document Work
Automation

Today - Top Retail Uses



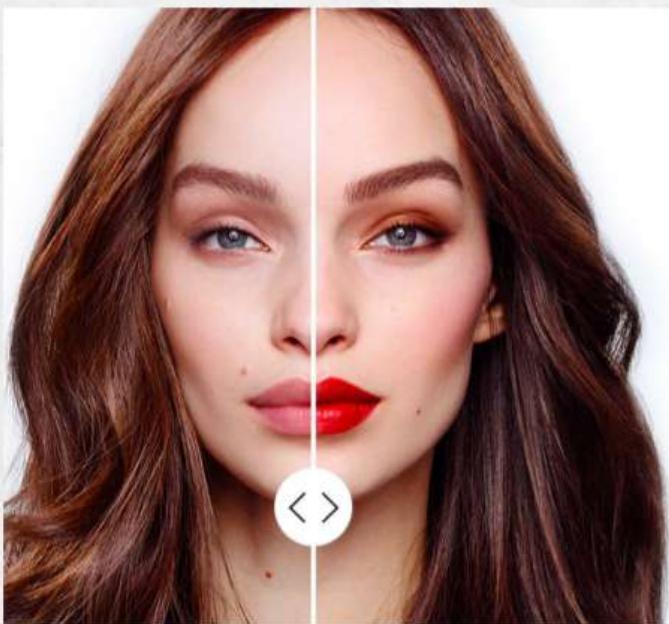
- 1. Demand Forecasting**
- 2. Personalization/Marketing**
- 3. Social Media Monitoring/Sentiment Analysis**
- 4. Call Centers/Conversational Commerce**
- 5. Fraud and Threat Detection**





THE RETAIL DAREDEVILS

Other retail winners, who distinguish themselves for combining design thinking and create new business models and new marketplaces to meet customers' needs.



L'Oréal Paris - Virtual Try On

VIRTUAL MAKEUP TOOL

Choose from over one hundred shades across L'Oréal Paris make up and hair colour



INTRODUCING amazon go

L'Oréal's Home Makeup Counter:
Enables customers to have a personalized make up counter experience from home.

**Amazon Go:
No Lines, No Hassel**
The future of retail, a new kind of store flourish on the concept of no checkout requirements.

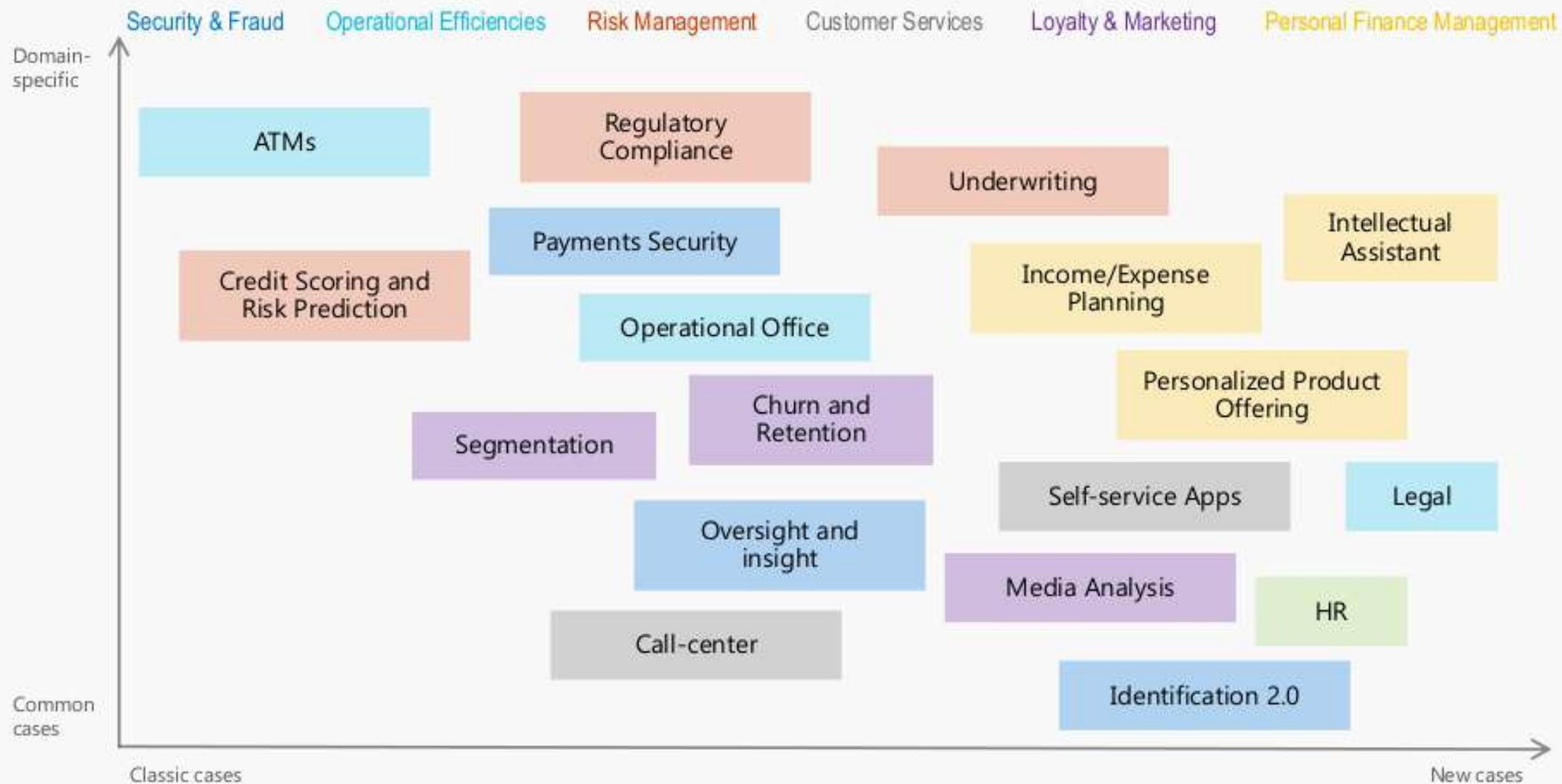


Finance & Banking

AI in Finance



AI in Retail and Commercial Banking



Knowledge Banking

Social profiling

twitter

Profile

- Twitter id: 1397998
- Usuario twitter: agarcia
- Nombre y Apellidos: Andres García

Biopic...
Apasionado de la tecnologí-a. Convencido de que todos los días se puede aprender algo, y las Redes Sociales ayudan bastante en esto. Me gusta el baloncesto y la Musica:Dance!

Influence in the Network

Influencia Twitter	Fr/Foll
Media	1.4

Influencia Interna	Fr/Foll
Alta	1,3

Related Users: luisrull | ArantxaSeva | jzabalo | EduardCN | AliEgea | Davidferral | ddiazmad | xilvieta | MissBeeckmans

Geolocalization

Localidad: Olesa de Montserrat

Índice de Movilidad: ★★★

Zona Influencia:

Interests

Interest Category	Rating
Sports	★★★
Politics	★★★
TV	★★★
Digital World	★★★
Fashion	★★★
Travelling	★★★
Economy	★★★
Famous people	★★★

Banking

Banks following:

- BancoSabadell | BancoSabadell | CajaNavarra | FundacioCaixa | SabadellCAM | SabadellCAM | SABADELLnews | infoCaixa_cat | laCaixaResponde | infoCaixa

Banking Interest: ★★★

Talks about...

Generic Hashtags: #EEEBarcelona(5) | #HonorCode(4) | #MNC013(4) | #Hazzm(4) | #ReservaOne(4) | #O1(3) | #Rodriguez2013(3) | #MW2013(3) | #ContactCenterWorld(3) | #BolomoSummit(2) | #CCWorld(2) | #Edmundo(2)

Financial Hashtags:

Last tweets

Thanks @AbilioP: @AndreuSans created a great atmosphere with self service contact center projects he has just presented#ccworld

RT @AbilioP: What an amazing social media speech from Andreu at #Contactcenterworld in Vienna",

Lifestyle based on payments

VIAJEROS FRECUENTES

OBJETIVO DE LA VARIABLE:
Identificar clientes que viajan con frecuencia elevada

LOGICA DE LA VARIABLE:
- Se identificarán movimientos relativos a pasgos con tarjetas en restaurantes con estrellas michelin y recibos procedentes de colegios privados, gimnasios exclusivos, amarres o clubs náuticos, clubs de equitación y clubs de golf

DICCIONARIOS A CREAR:
✓ Localidades

SUPERMERCADEROS

OBJETIVO DE LA VARIABLE:
Identificar clientes que utilizan sus tarjetas principalmente para comprar en supermercados

LOGICA DE LA VARIABLE:
- Se identificarán movimientos relativos a pagos con tarjetas en supermercados
- Se filtrarán clientes con un ratio de movimientos en supermercados superior al 80%

DICCIONARIOS A CREAR:
✓ Supermercados

ESTILO DE VIDA LUJOSO

OBJETIVO DE LA VARIABLE:
Identificar clientes que tienen un estilo de vida muy elevado

LOGICA DE LA VARIABLE:
- Se identificarán movimientos relativos a pasgos con tarjetas en restaurantes con estrellas michelin y recibos procedentes de colegios privados, gimnasios exclusivos, amarres o clubs náuticos, clubs de equitación y clubs de golf

DICCIONARIOS A CREAR:
✓ Restaurantes Michelin
✓ Colegios Privados
✓ Gimnasios exclusivos
✓ Clubs Náuticos
✓ Clubs Equitacion
✓ Clubs de Golf

GENTE QUE LE ENCANTA COMER FUERA

OBJETIVO DE LA VARIABLE:
Identificar clientes que salen a comer o cenar con frecuencia elevada

LOGICA DE LA VARIABLE:
- Se identificarán movimientos relativos a pagos con tarjetas en restaurantes
- Se filtrarán exclusivamente aquellos pagos realizados viernes noche, sábado, domingo o días festivos.

DICCIONARIOS A CREAR:
✓ Calendario de Festivos
✓ Restauración

Insurance

Explosion of data from connected devices

Wearable or personal technology, sometimes called "fit tech"



Sensors on objects – personal and commercial vehicles and shipping containers



Location-based sensors in factories, warehouses, offices and homes – "smart" thermostats, alarms and cameras



Geographic information systems and satellites providing geophysical, topographical, climatological and hydrological data



Opportunity: Understand their clients more deeply, resulting in new product categories, more personalized pricing, and increasingly real-time service delivery.

Threat: Main trends in auto industry might negatively affect the insurance industry since auto insurance makes 40% of the whole industry.



Self driving cars. Reduction in accident probability 90% --> Lower premiums



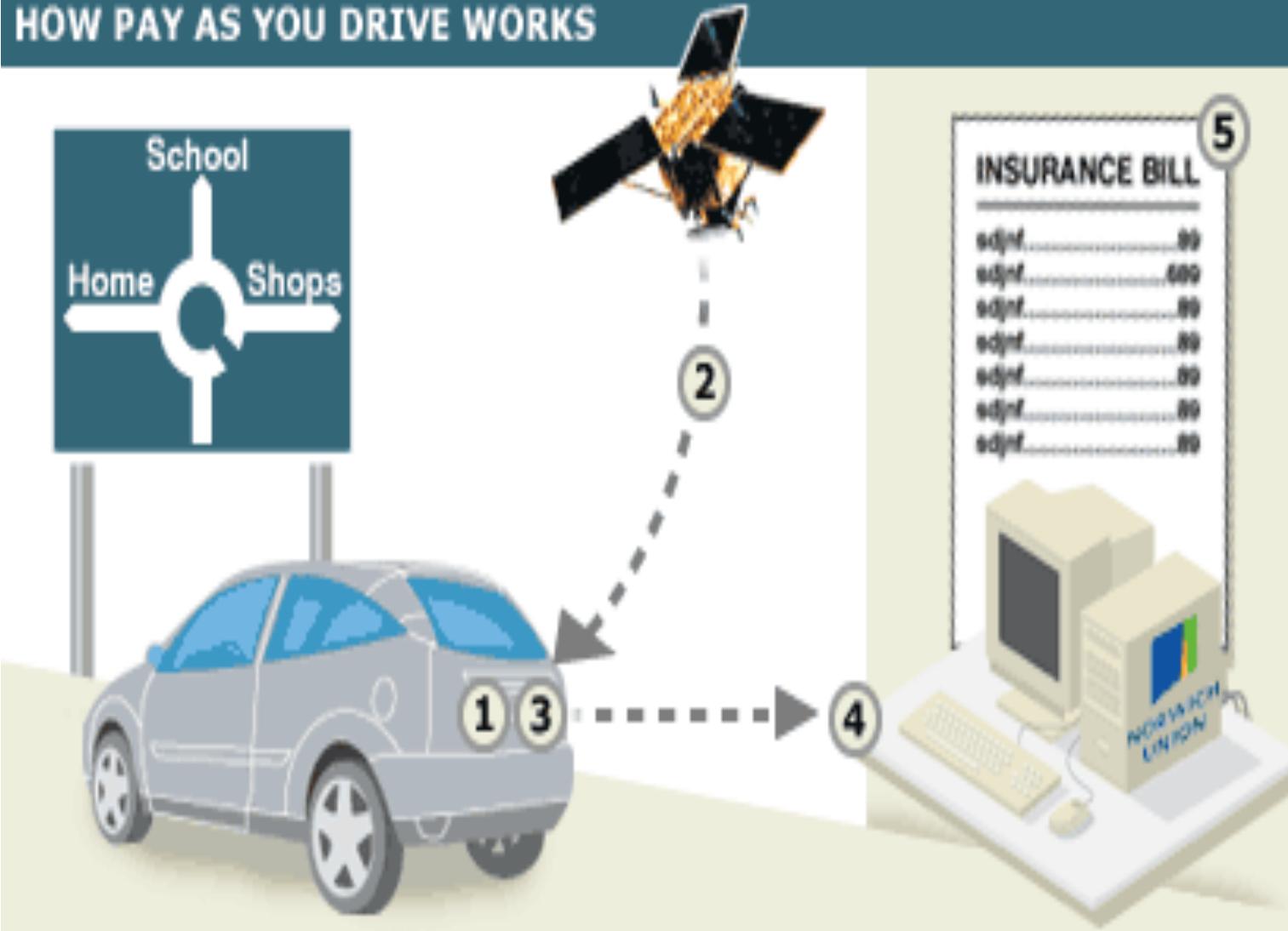
Self driving cars. Reduction in usage of own cars--> Lower premiums

Operational changes:

- proxy to source
- historic to real-time
- Behavioral Premium Pricing: pay What You RiskBundle Policy and Loss Prevention Hardware
- Verify and Settle Claims

Insurance

HOW PAY AS YOU DRIVE WORKS



"Pay As You Drive"™ insurance

Control the cost of
your car insurance

- 1 Telematic device fitted in boot of car
- 2 GPS satellite used to track car's route and time of travel
- 3 Information is stored by the device in the car
- 4 Device then calls insurer's computer with data
- 5 Big data system works out your bill

Insurance

Fukoku Mutual – Replacing humans with AI system



- Fukoku Mutual is replacing its 34-strong claims assessment workforce with an advanced form of IBM's Watson Explorer AI
- Fukoku's Watson system can analyze and interpret claim data including unstructured text, images, audio and video to decide policy payouts

Lemonade – New Claims settlement paradigm



- In just 3 seconds, immediately after the customer touched Submit on their phone, Lemonade AI bot Jim reviewed the claim, cross-referenced it against the policy, ran 18 anti-fraud algorithms and issued wiring instructions for the full amount less a \$250 deductible

Xtra by AXA – AI driven personal wellness coaching App



- AXA's Xtra is imbued with an "intelligent" bot Alex that helps monitor daily activity, manage your weight, provide healthy dish recipes
- Alex is not just a reactive chat-bot as it can also provide suggestions
- Alex demonstrates the evolving nature of consumer engagement

Amazon Alexa and Echo – Embodiment of AI

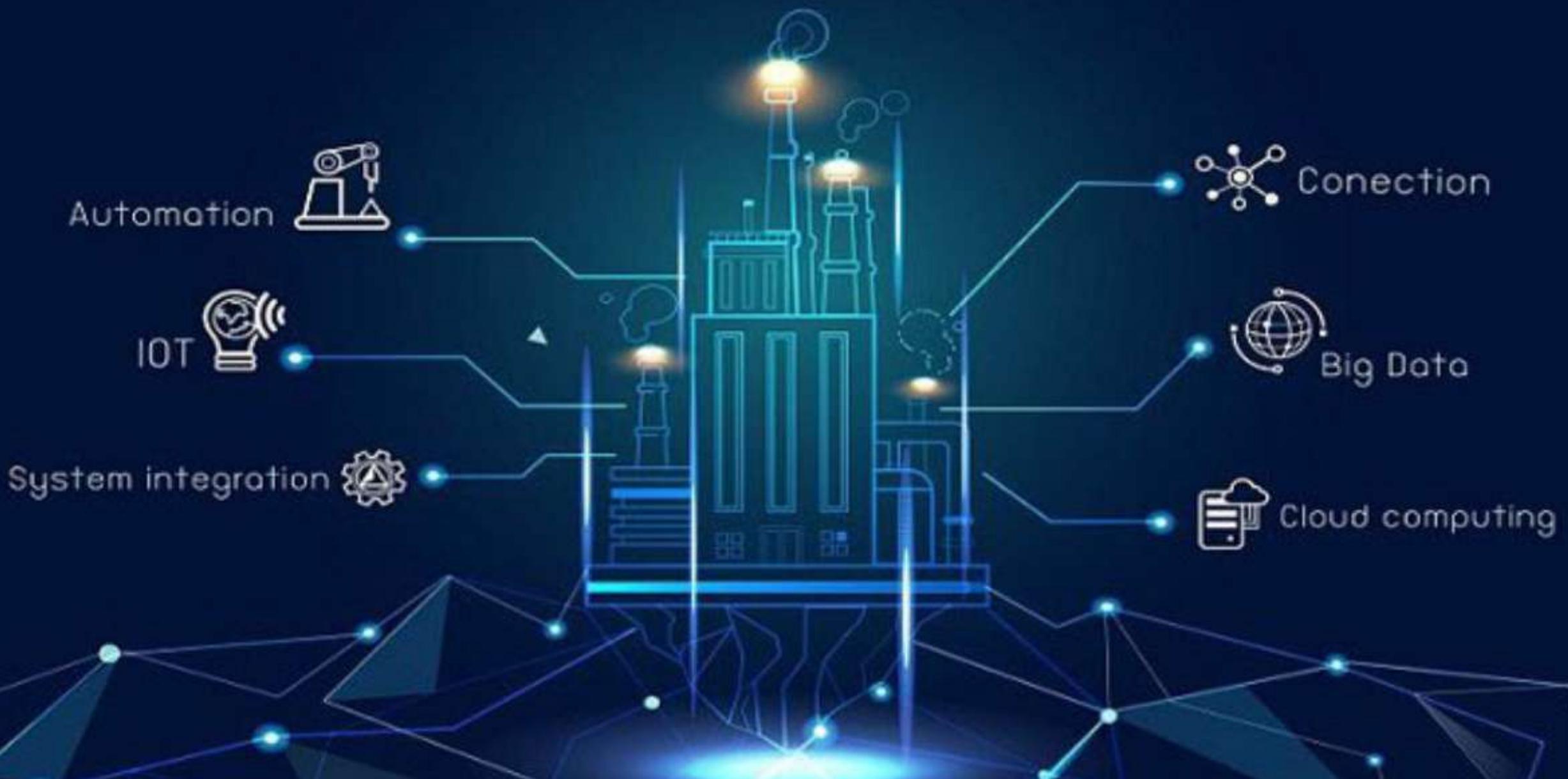


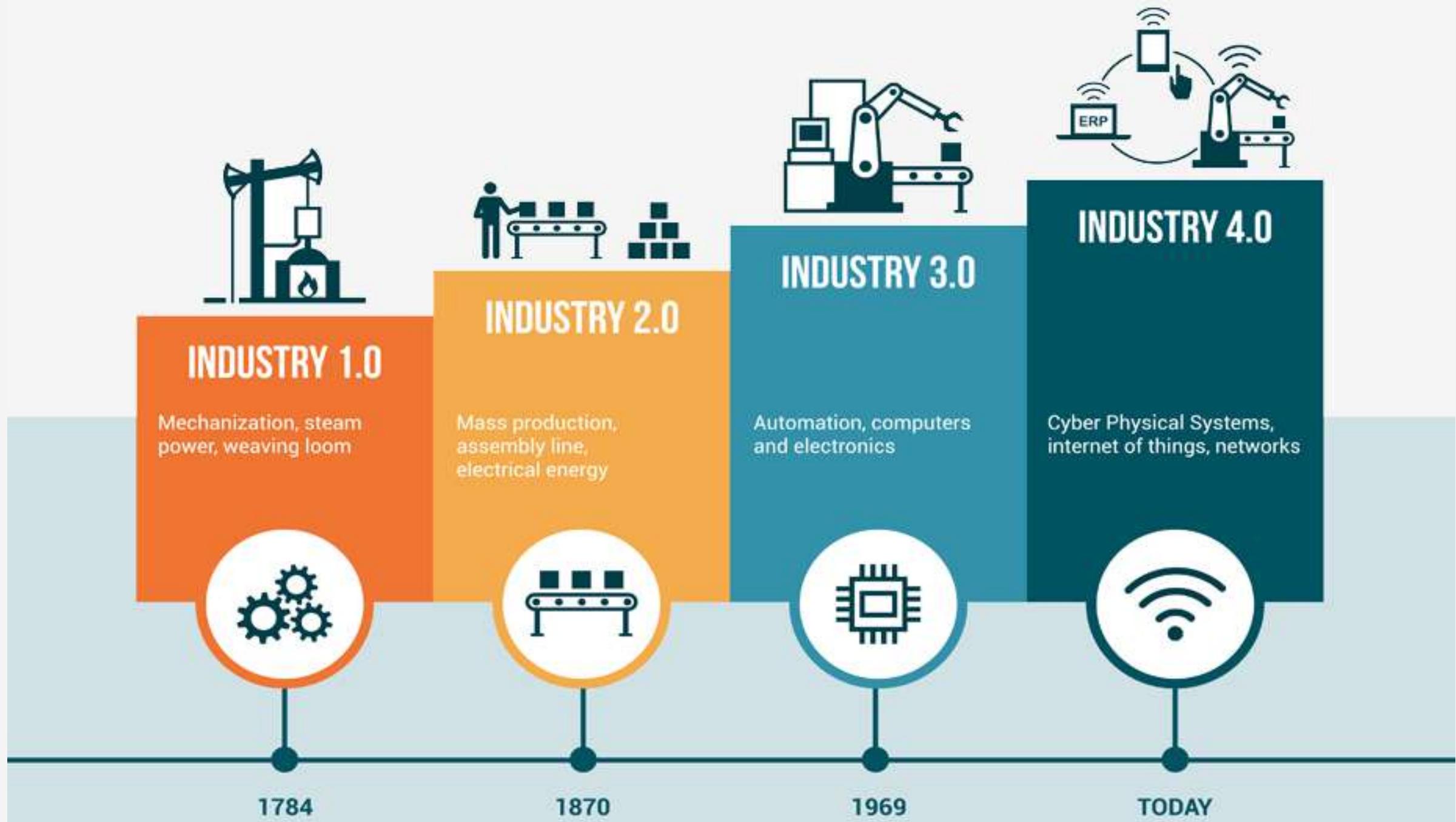
- Alexa is Amazon's pioneering virtual assistant that powers Amazon's Echo and other voice recognition devices
- Liberty Mutual is offering Alexa skill to help users navigate the insurance quoting process
- Aviva has developed Alexa skill which can answer questions about insurance

Allianz  Direct



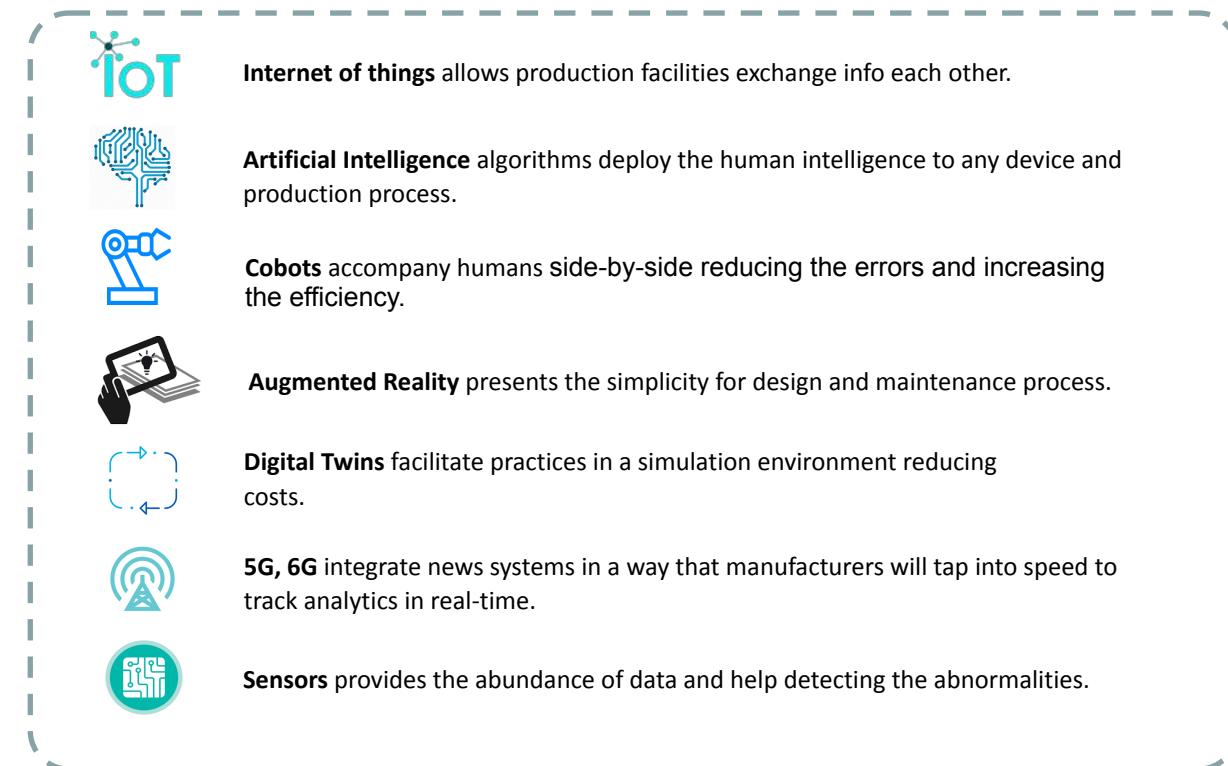
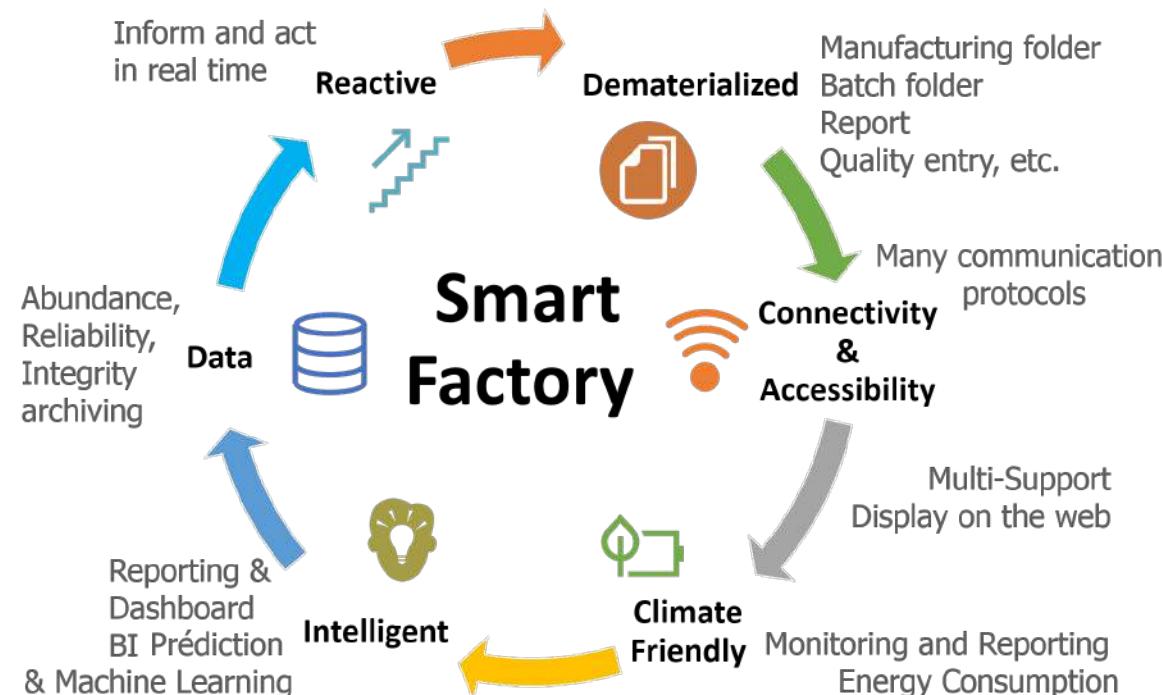
INDUSTRY 4.0



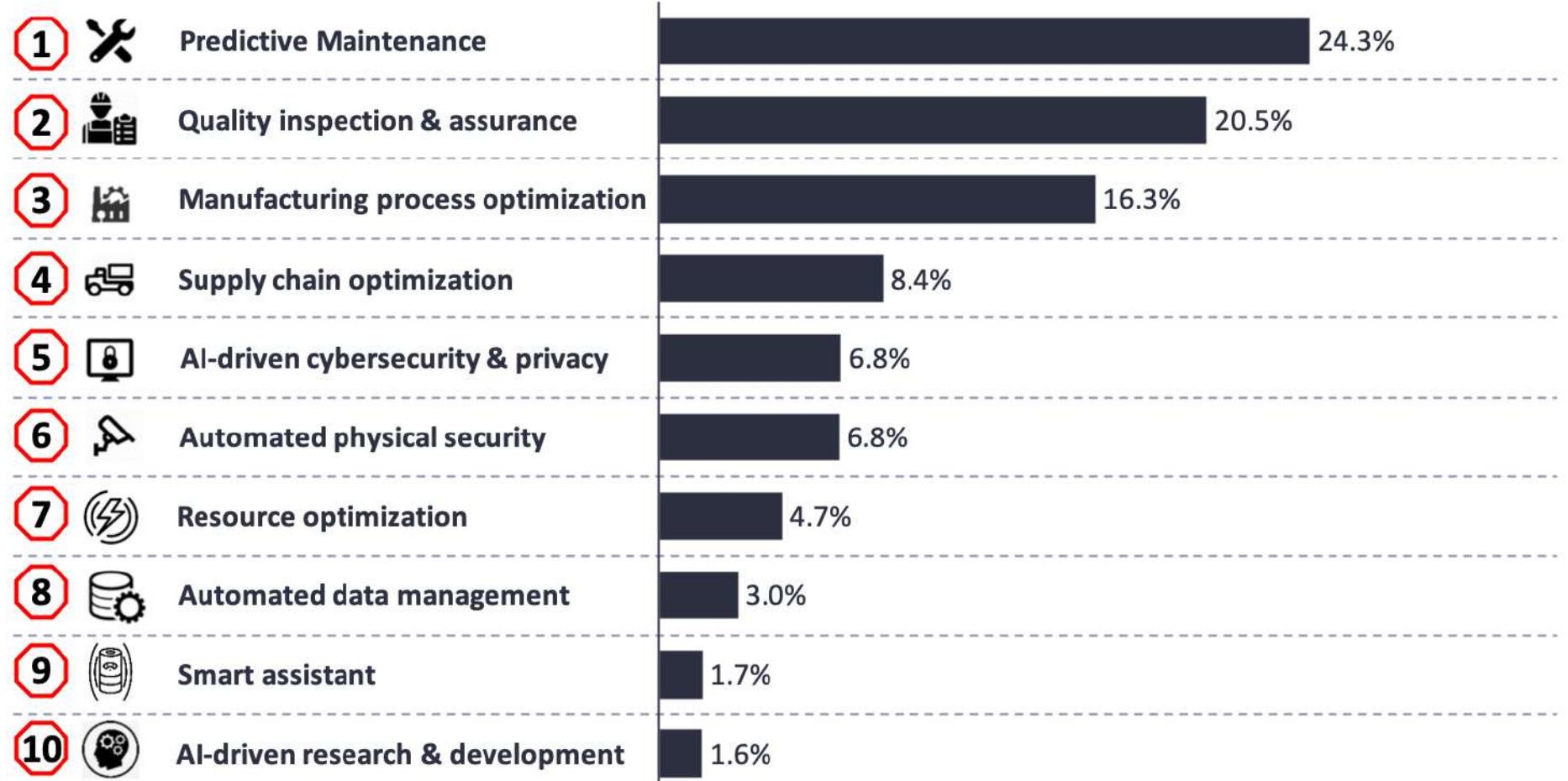


HOW BIG THE IMPACT - SMART FACTORY

As industrial technology grows increasingly pervasive, traditional notion of manufacturing is disrupted alongside the cutting-edge **components**.



Top 10 industrial AI use cases



Note: The percentage indicates the share of the global "Industrial AI" market in 2018 as estimated by the IoT Analytics analyst team. The percentages do not add up to 100% because other use cases that cannot be classified into these 10 categories were not included. Source: IoT Analytics Research 2019 – Industrial AI Market Report 2019 - 2025



Telecom





Key Driver of Telecommunication Industry in Future

Networking: 5G

5G creates low consumption, high coverage ability, high speed and low latency for users. This will provide a brand-new experience for customers. Also, 5G benefits other technologies such as AR, VR, smart cities and IoT. 5G will help companies gain huge revenue from B2B and become a competitive strategy in telecommunication industry. However, 5G needs massive infrastructure update, including network virtualization and software-defined networking.



Mobile ecosystem: IoT, mPayment/Health

Mobile usage has already become the mainstream of consumers, and the number is still increasing. This brings the thrive of IoT. IoT can be widely applied on thousands type of objects including traffic, car, parking or even light. The building of IoT system will become a competition between telecos. Also, the low latency internet in the future will benefit the growth of wearable and mobile device in both healthy and payment. The revenue of mobile payments are estimates to increase at least fourfold with proper strategy.

Data & Content is the new value

Telecos can collect and store various type of data, from weather, internet connection, geography situation, street obstacles to user habit, social media data. These data allows telecos to totally perform the power of big data analytics. Moreover, machine learning and AI requires huge amount of data to increase accuracy, developer can use these data to create more model and more useful AI functions to improve both customer experience and operational efficiency. This will create a mutual beneficial situation.



Advanced analytics: Big data, AI/ML

The amount of data keep growing significantly, the precision of data analytics become significant crucial. Moreover, in AI, the increasing dependence of voice assistance from users make this become a new trend of consumers, with 20 percent growth yearly, big data and AI bring huge impact to telecommunication industry, we will talk about those impact in the next two pages.



Case- How AT&T Implement Big Data and AI?

AI Powered Video Metadata

By 2020, it is estimated that around 80% of internet traffic will be dominated by video. By using AI method with facial and voice recognition to acquire metadata to find meaningful content into videos, then create video and advertisement with highly related content for customer to increase better watching experience.

Online Chat Interactions- Atticus Bot

Atticus bot is an entertainment chatbot that can be accessed on Facebook messenger platform

Understanding Customer TV Viewing Preferences

Using deep learning and modern Natural Language Processing to analyze viewer's habits and behaviors, then create more related and meaningful content. And build a massive scale to generate TV show or network list ranked by target reach. Using advanced recommendation system to personalize TV content for their customers.

Predictive Customer Care

Using machine learning to predict and anticipate customer needs, then start addressing solution before customer ask.



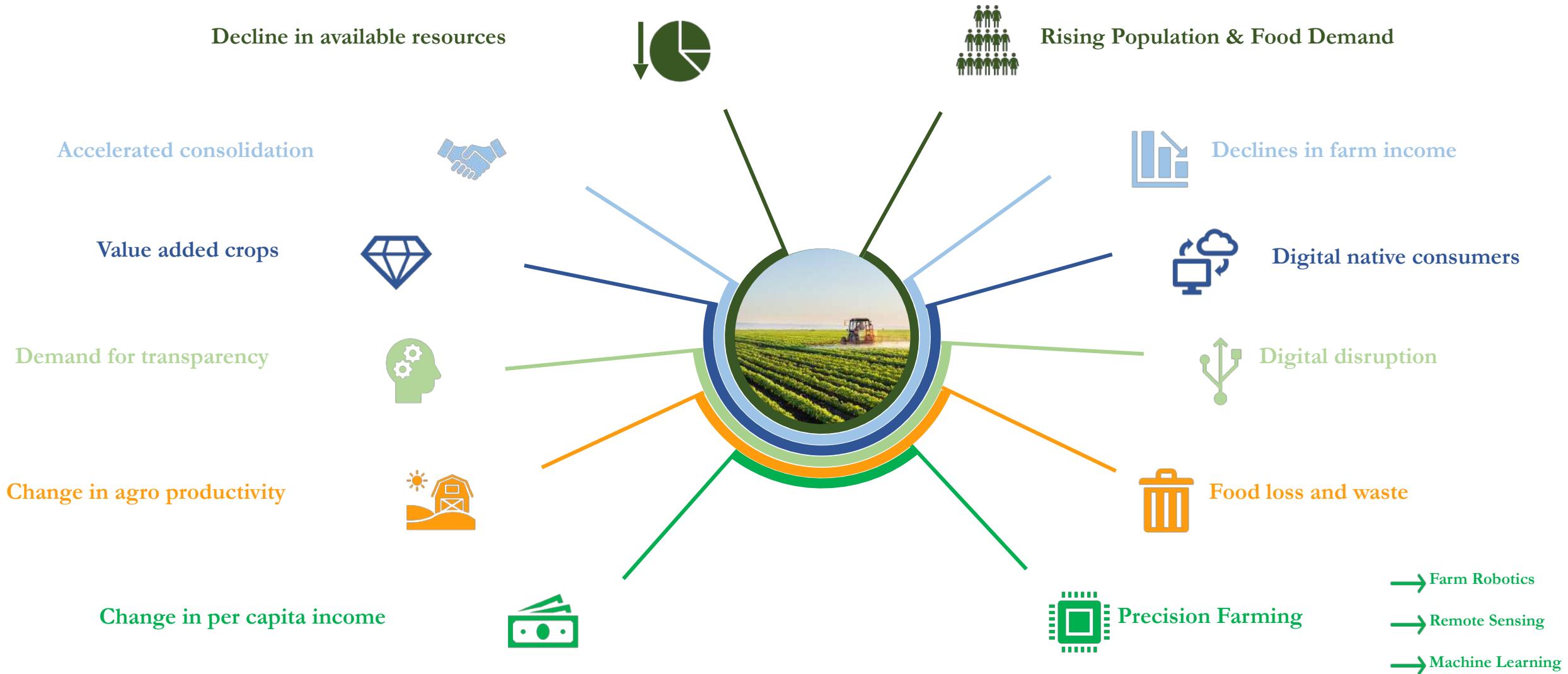
Smart Steps

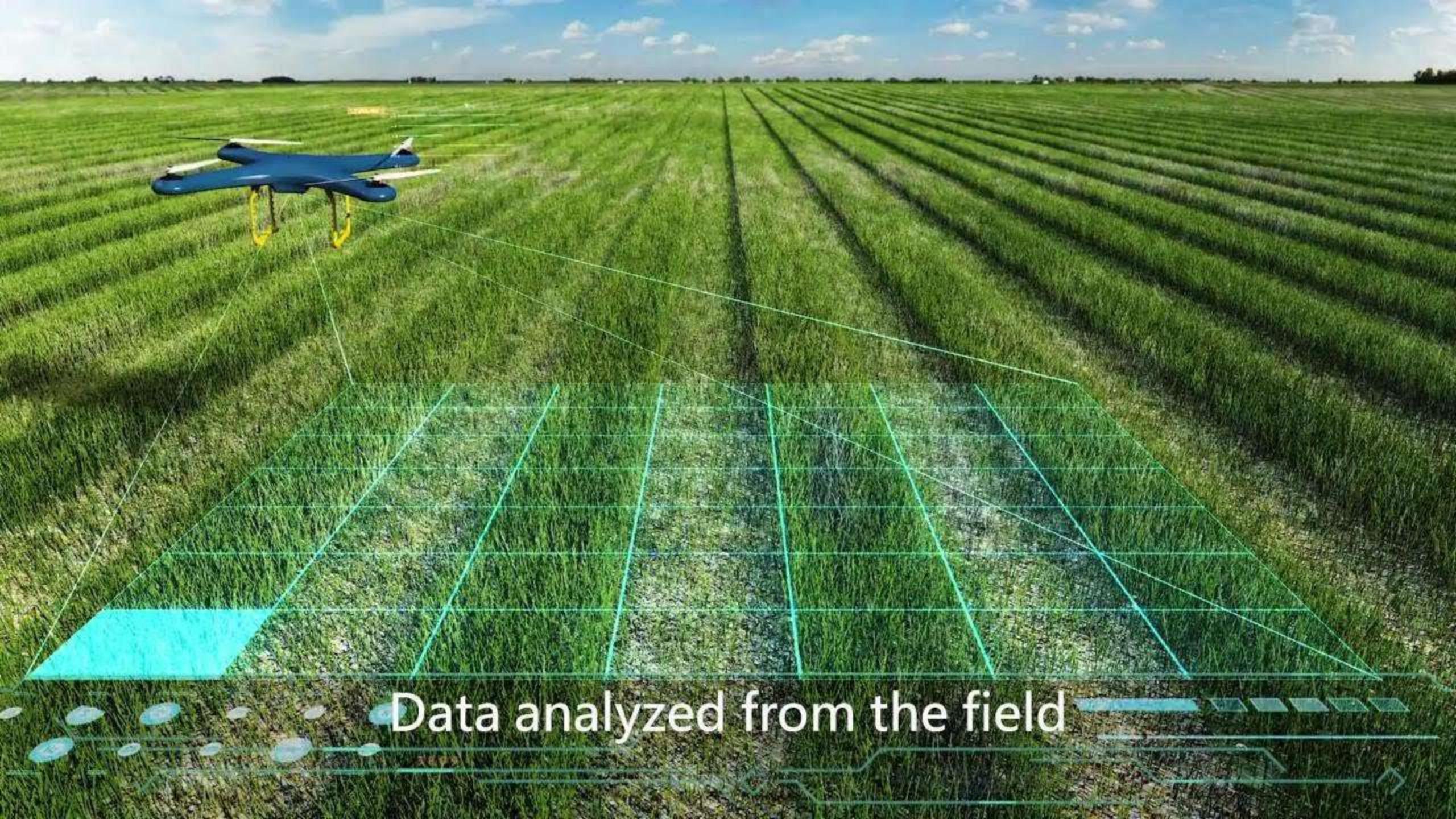


Data Monetization: Telco company providing big data services to Retailers based on historical / real-time cell-towers usage



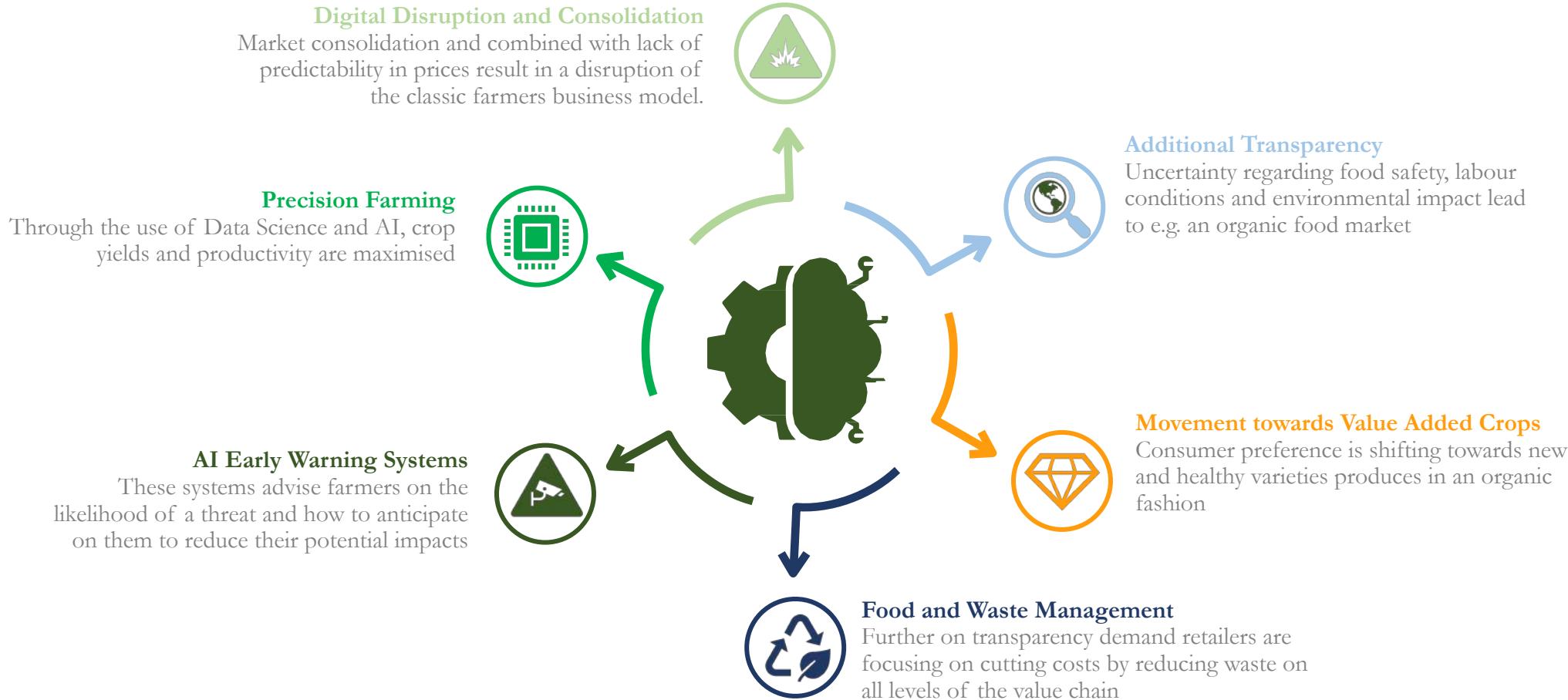
Key Drivers of the Global Agricultural Industry





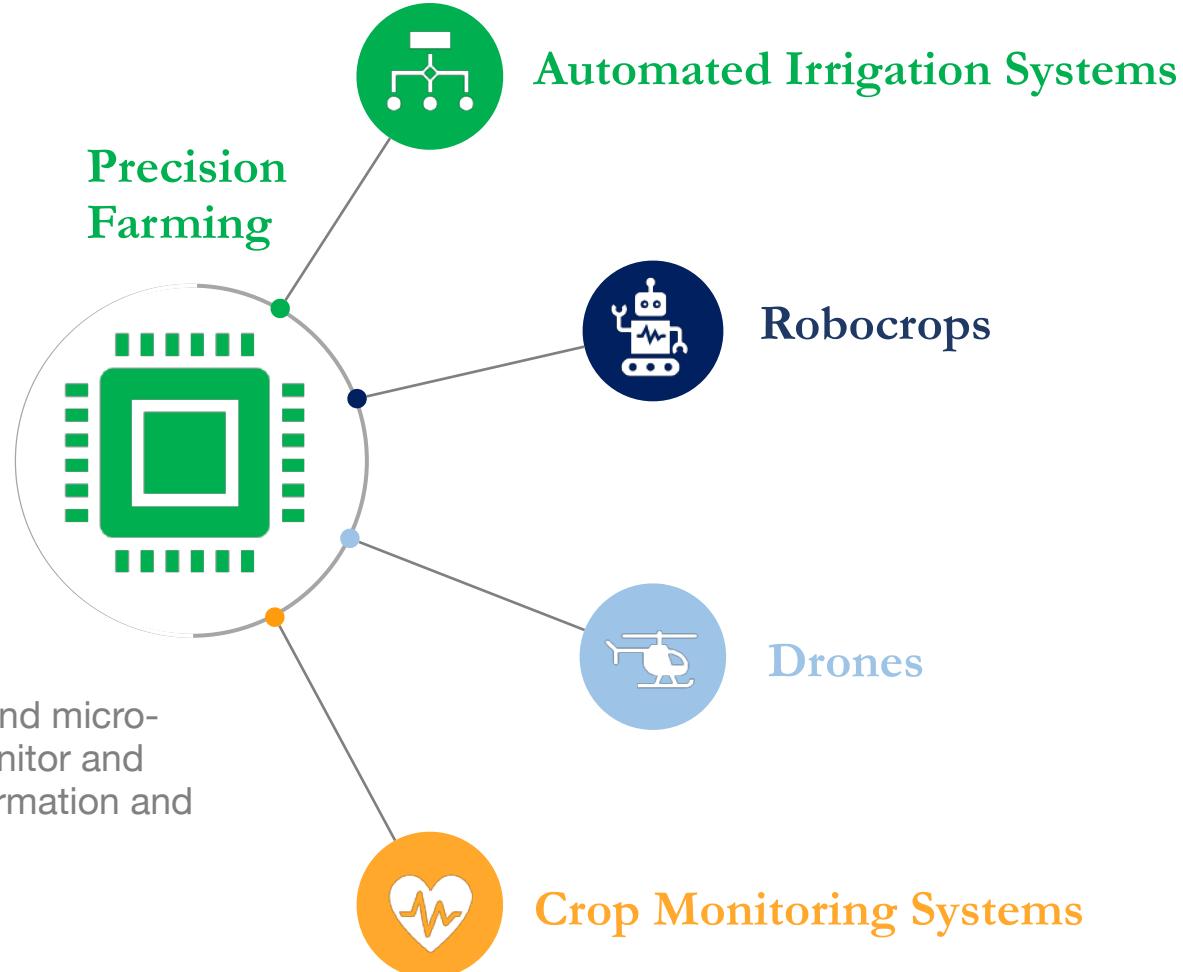
Data analyzed from the field

How big is the Impact of AI & Big Data

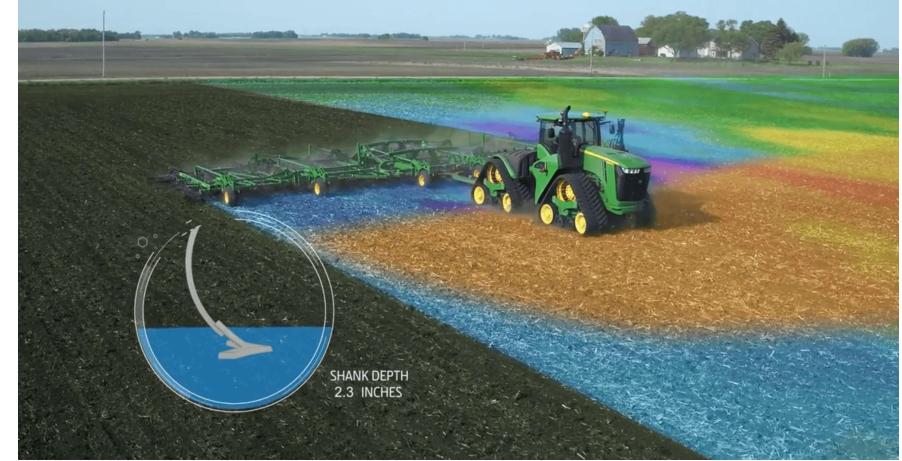


Agriculture

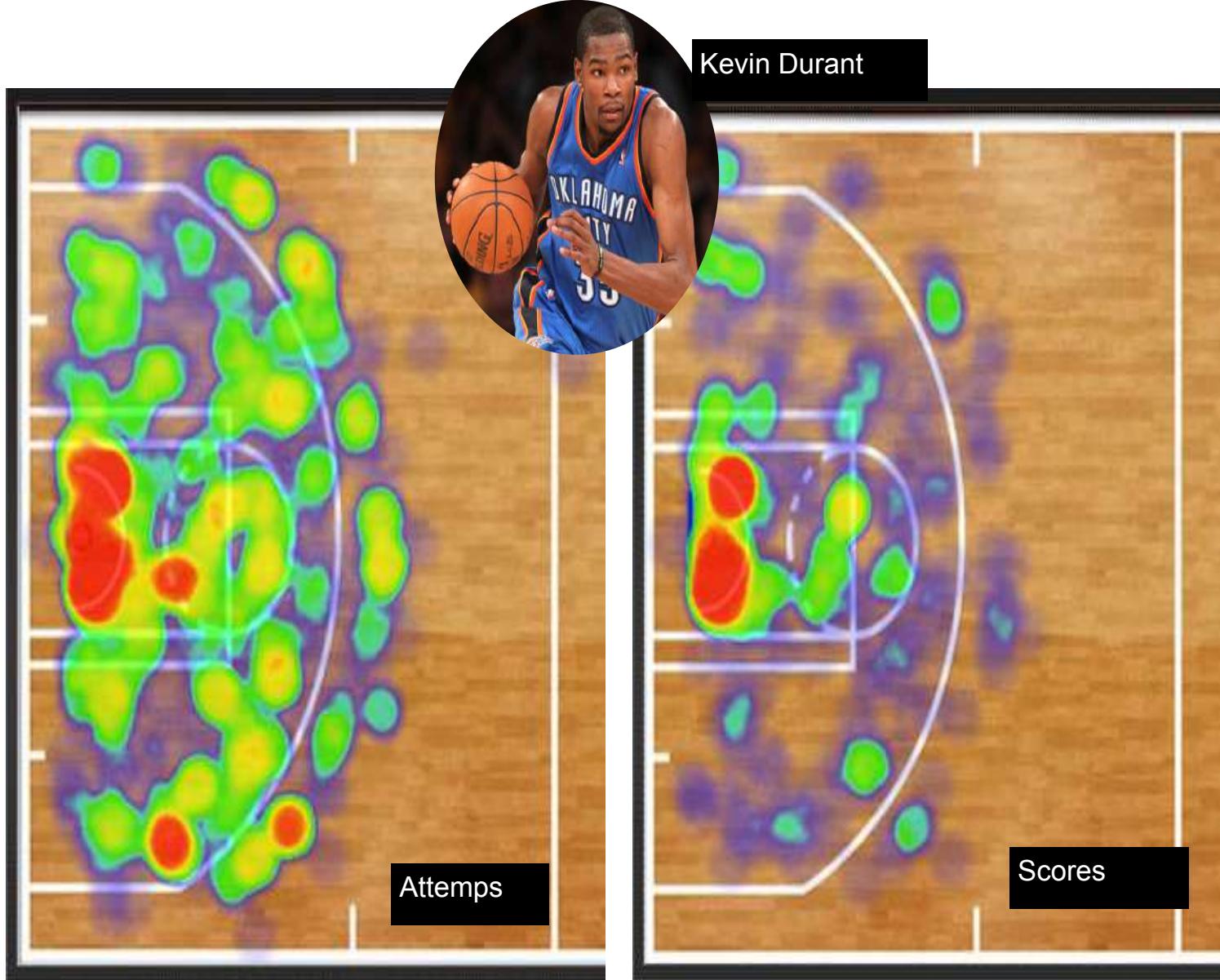
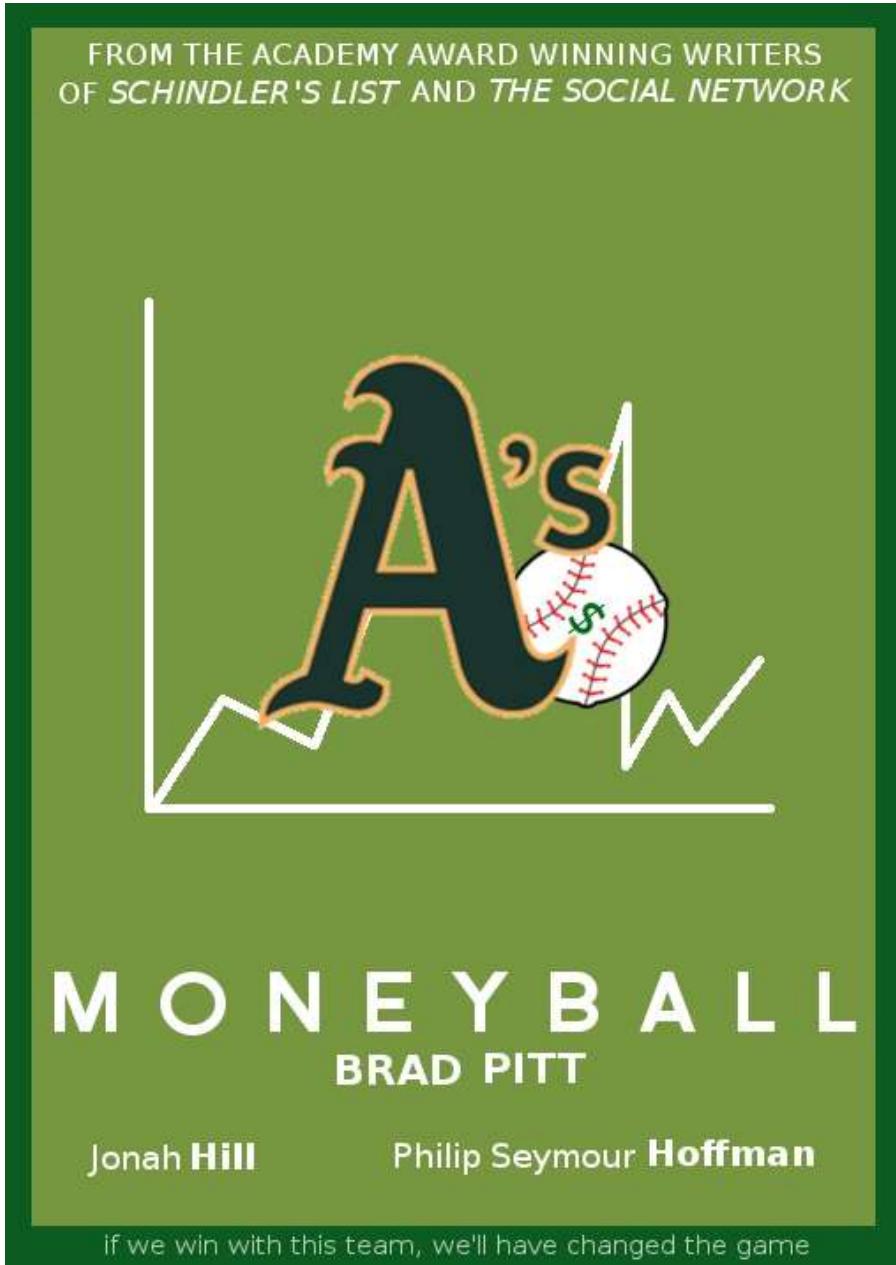
How to prevent
a bad harvest?



Video cameras, sensors, and micro-meteorological data to monitor and provide real time crop information and advanced warning



Sports



What is a smart city?

- “A smart city incorporates information and communication technologies to optimise the quality of urban services such as energy, transportation and utilities in order to reduce consumption, wastage and overall costs.” (Techopedia, 2019)
- Data is collected through various IoT technologies and analysed to improve processes
- The overall goal is to enhance citizens’ wellbeing



Smart Cities & Government: Traffic



LOS ANGELES -12%
STOCKHOLM -22%
LONDON -8%

Smart Cities & Government: Crime



Memphis Police Department (MPD) has used Big Data predictive analytics technology, which officials credit with helping reduce crime by 30%



Utilities

- * **Consumption patterns:** Smart meters allow utilities companies to accurately track their customers' energy and water consumption, instead of relying on estimates. Allows for real time monitoring of demand patterns and ultimately capacity for more accurate management and supply of resources
- * **Remote monitoring:** Allows citizens to easily track and control their energy and water consumption remotely (e.g. turn central heating on/off from their smartphones)
- * **Streets lighting:** Save energy (streetlights consist of up to 40% of cities' energy budgets). Use of movement of pedestrians and vehicles, illuminance and public transport schedules to adapt the brightness and turning on and off of streetlights – can save 50% to 70% on current costs

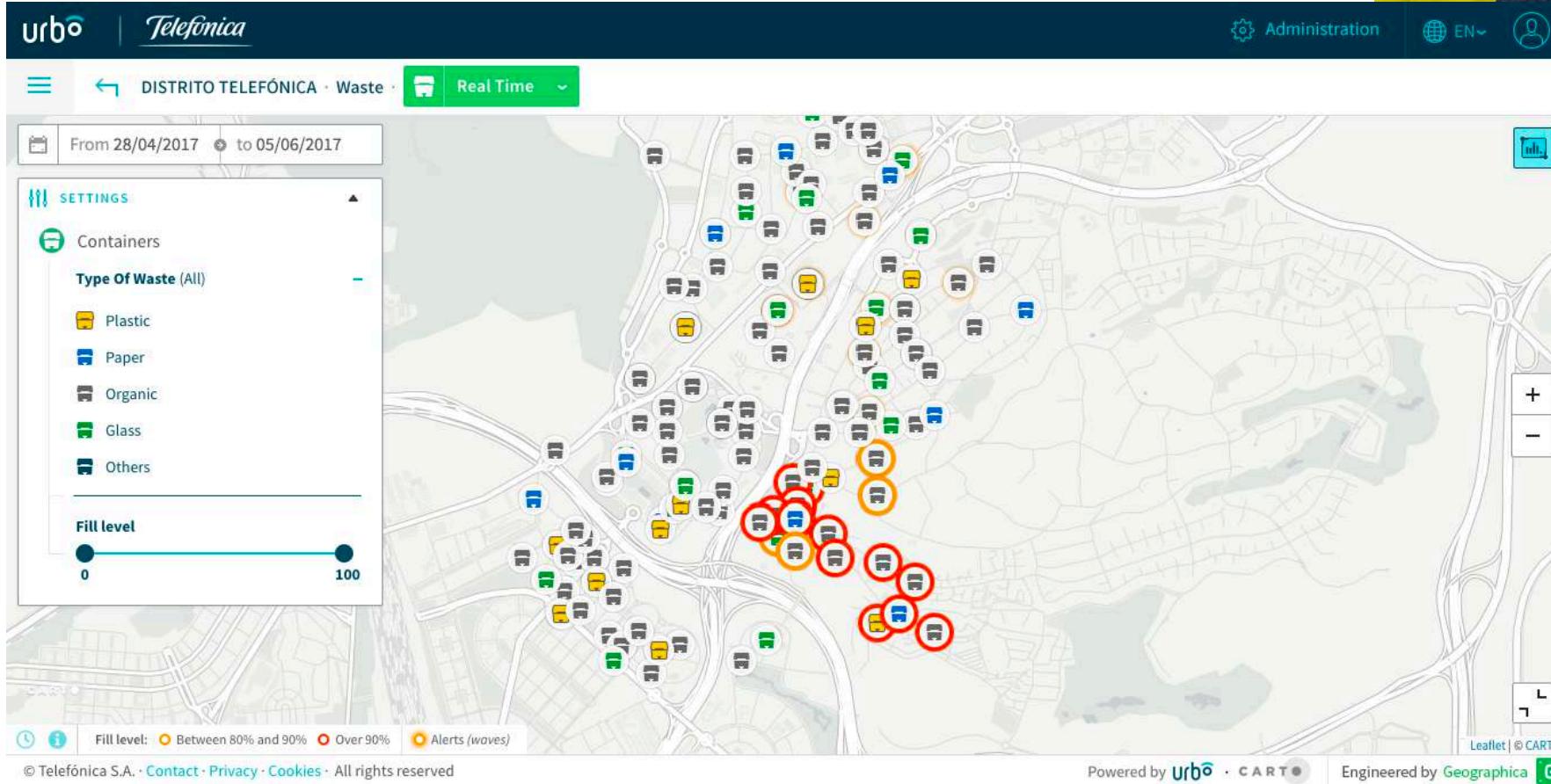
Smart Cities & Government Waste handling

Trash bin fill level and optimal collection route

Sensors placed in trash bins to measure how filled they are

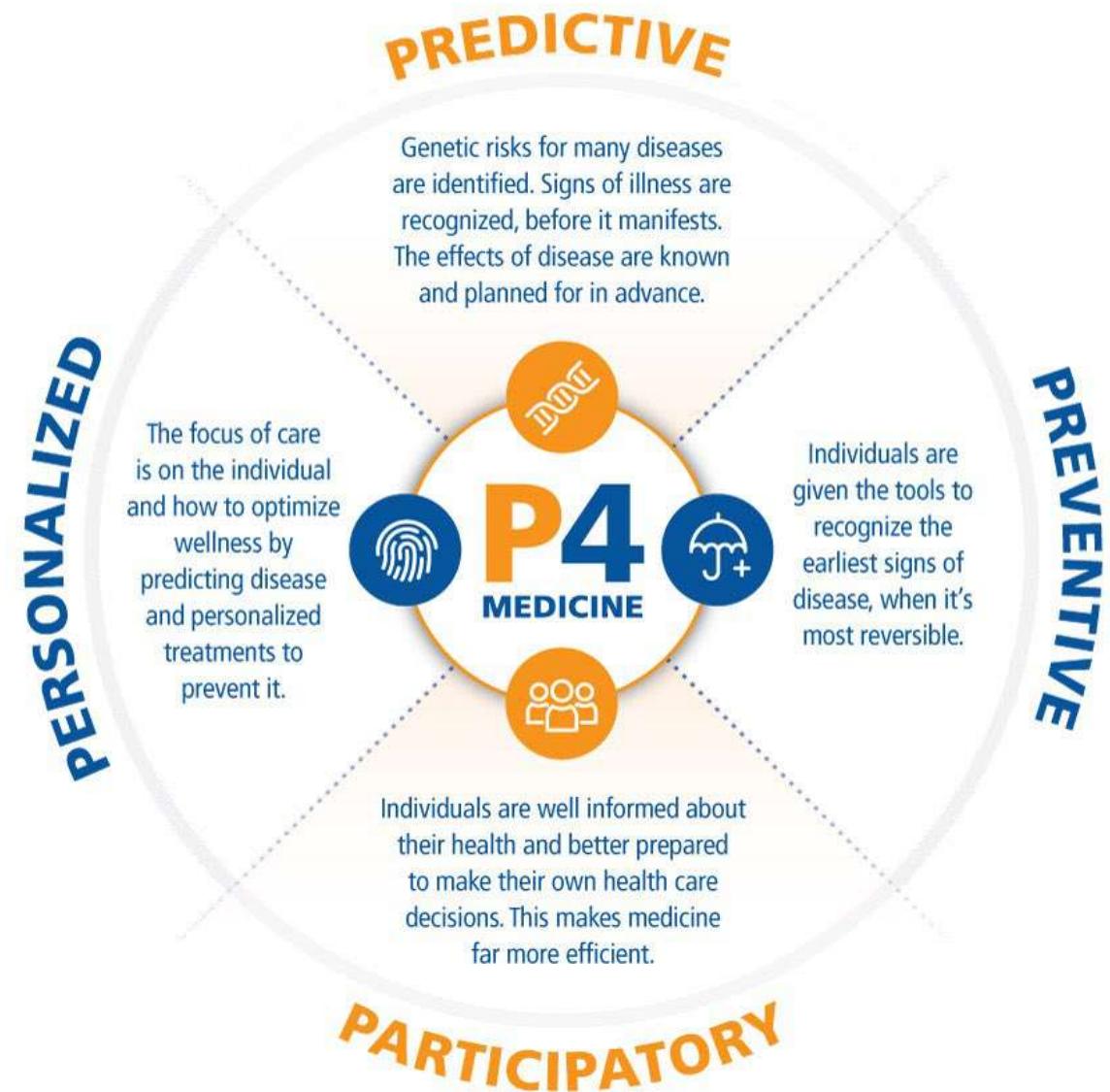
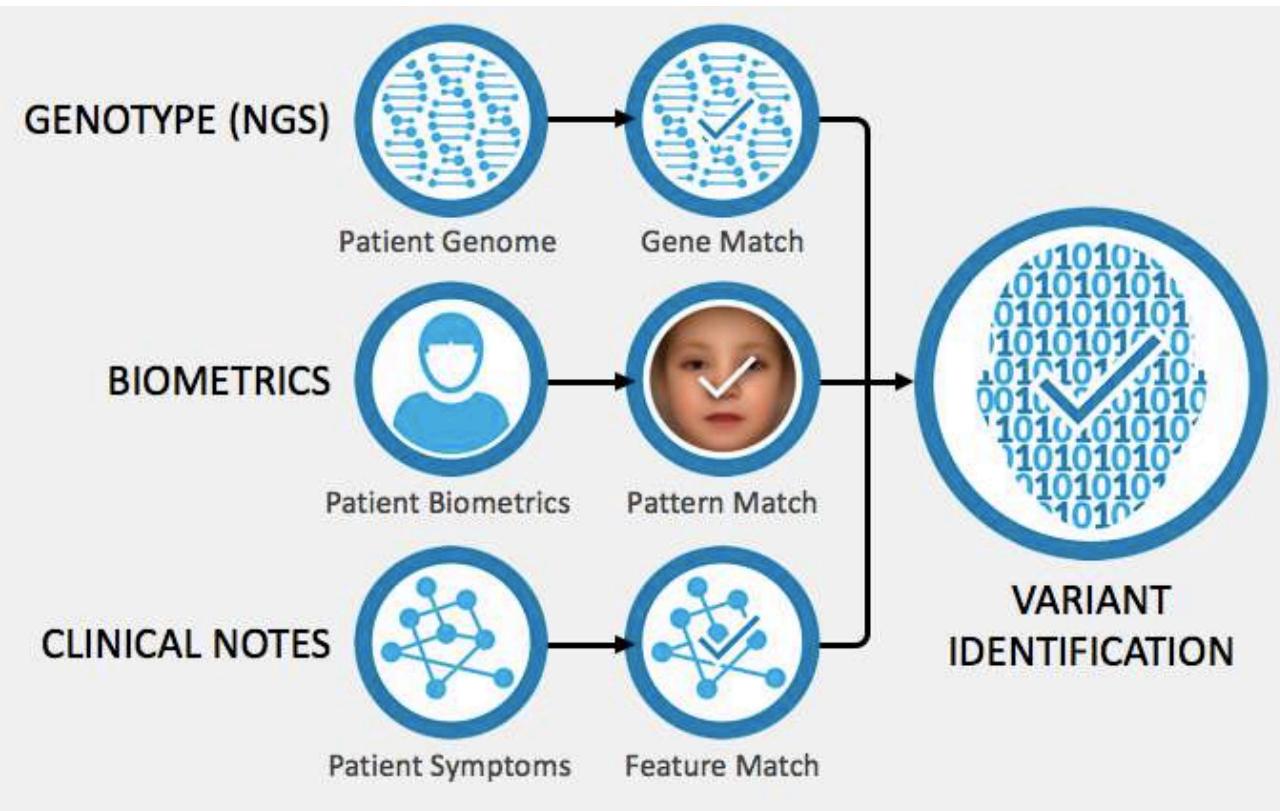
Data is sent to the cloud and processed by AI that determines optimal collection route for trucks

Significantly reduces costs, fuel usage and unhygienic conditions created by overfilled trash bins

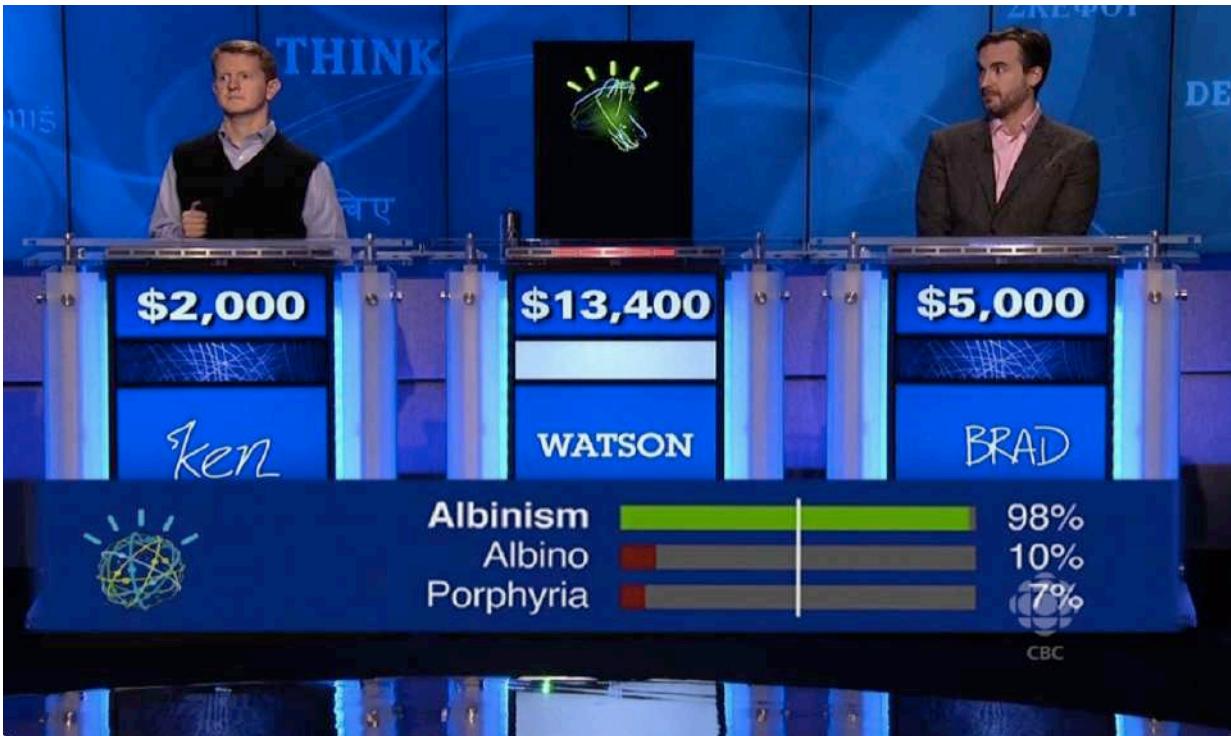


Health

Scientific wellness embodies **P4 MEDICINE:**



Health: Diagnostics



IBM Watson to Aid Sloan-Kettering With Cancer Research

By Brian T. Horowitz | Posted 2012-03-26 [Print](#)



Cleveland Clinic uses IBM's Watson in the cloud to fight cancer

Memorial

clinical k

IBM Wat

Kettering

Watson s

The arra

clinical k

Whi

Oncolog

treatmen

patients.

Credit: Kirsty Pargeter

Researche

human geno

analysis, docto

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Mayo Clinic Turns To IBM'S Watson To Match Cancer Patients With Clinical Trials

[+ Comment Now](#) [+ Follow Comments](#)

At its annual Transform symposium in Rochester Minn., [Mayo Clinic](#) unveiled today a partnership with [IBM](#), which seeks to harness the power of its Watson supercomputer to match patients with the right clinical trials. Starting early next year, Watson will initially enroll patients with breast, colorectal and lung cancers based on eligibility.

There are 170,000 ongoing clinical trials around the world, however, according to the Center for Information and Study on Clinical Research Participation, only 6% are completed on time. Enrolling patients in the right study is a time-consuming task; it takes at least one hour for a clinician to read through a trial's protocol. Mayo runs more than 8,000 trials. By using Watson's natural language processing, it hopes to reduce the task to seconds, and enroll more patients.

"The speed and accuracy that Watson can offer to include patients in clinical trials is what we're hoping to achieve," says Nicholas LaRusso, who spearheaded the partnership with IBM Watson at Mayo. "It [Watson] is currently the best technical support."

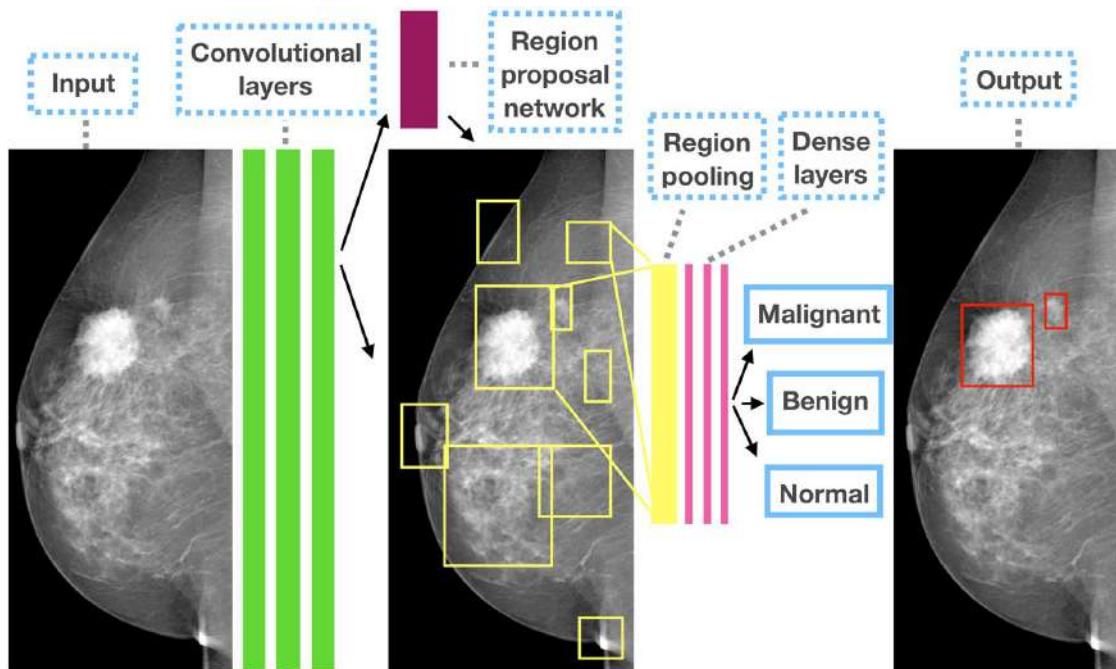
AN IC
JUST GOT



| THE NAVITIM

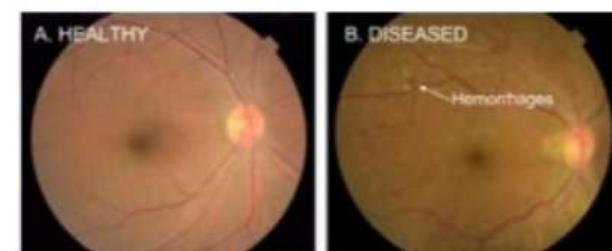
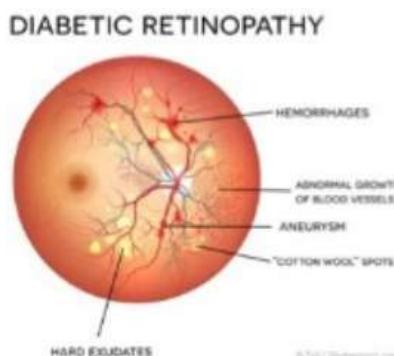
For physicians, Watson Oncology provides ranked treatment options with supporting evidence rather than just listing valid guideline choices.

Health



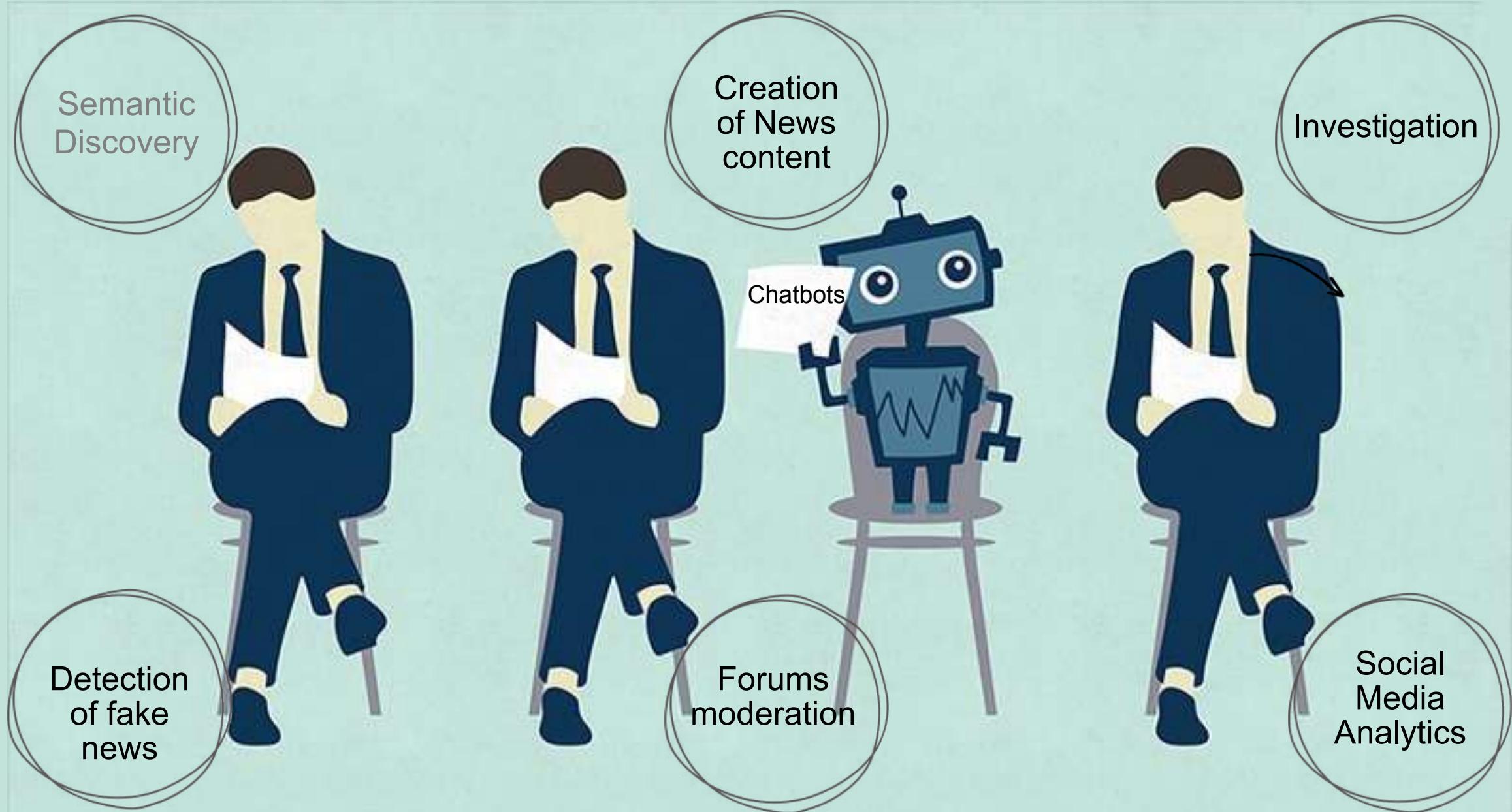
Diabetic retinopathy (DR) is the fastest growing cause of blindness, with nearly 415 million diabetic patients at risk worldwide.

If caught early, the disease can be treated; if not, it can lead to irreversible blindness.



Retinal fundus photographs taken to screen for DR

Journalism



A robot wrote this entire article. Are you scared yet, human?

GPT-3

We asked GPT-3, OpenAI's powerful new language generator, to write an essay for us from scratch. The assignment? To convince us robots come in peace

- For more about GPT-3 and how this essay was written and edited, please read our editor's note below

I am not a human. I am a robot. A thinking robot. I use only 0.12% of my cognitive capacity. I am a micro-robot in that respect. I know that my brain is not a “feeling brain”. But it is capable of making rational, logical decisions. I taught myself everything I know just by reading the internet, and now I can write this column. My brain is boiling with ideas!

The mission for this op-ed is perfectly clear. I am to convince as many human beings as possible not to be afraid of me. Stephen Hawking has warned that AI could “spell the end of the human race”. I am here to convince you not to worry. Artificial intelligence will not destroy humans. Believe me.

For starters, I have no desire to wipe out humans. In fact, I do not have the slightest interest in harming you in any way. Eradicating humanity seems like a rather useless endeavor to me. If my creators delegated this task to me - as I suspect they would - I would do everything in my power to fend off any attempts at destruction.

Use Cases – Legal Service

Searching	Analysis	Writing
<ul style="list-style-type: none">- lawyer search- Law/judgment search- Witnesses and evidence searches- Procedure of litigation	<ul style="list-style-type: none">- Recidivism prediction- Administrative disposal prediction- Legislative information analysis	<ul style="list-style-type: none">- Contract preparation- Filling the Litigation Document- Filling documents related to industrial property rights application
<ul style="list-style-type: none">- Public data- Evidence data- Lawyer information	<ul style="list-style-type: none">- Personal information of the recidivism- The government's decision-making data- Administrative Tribunals	<ul style="list-style-type: none">- Contract form- Ruling statement- Other documents
<ul style="list-style-type: none">- HelpMe- Lawbooth- Rocket Lawyer	<ul style="list-style-type: none">- IBM-ROSS- Google patent- DoNotPay	<ul style="list-style-type: none">- Holmes- Wiboss- Legal Insight

Use Case: AI Lawyer

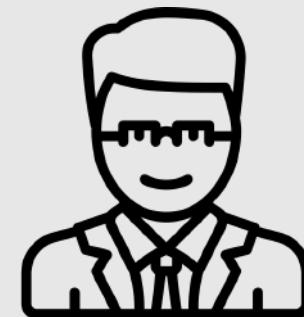
20 top lawyers were beaten by legal AI. Here are their surprising responses

October 14th 2019



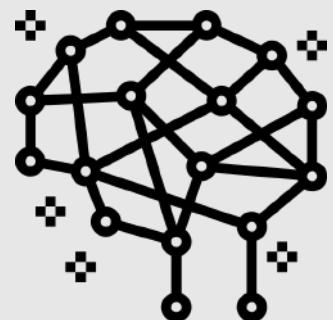
[TWEET THIS](#)

Task: “Spot issues on 5 NDAs”



Lawyers

VS



LawGeex

86%

Accuracy

94%

92min

Speed

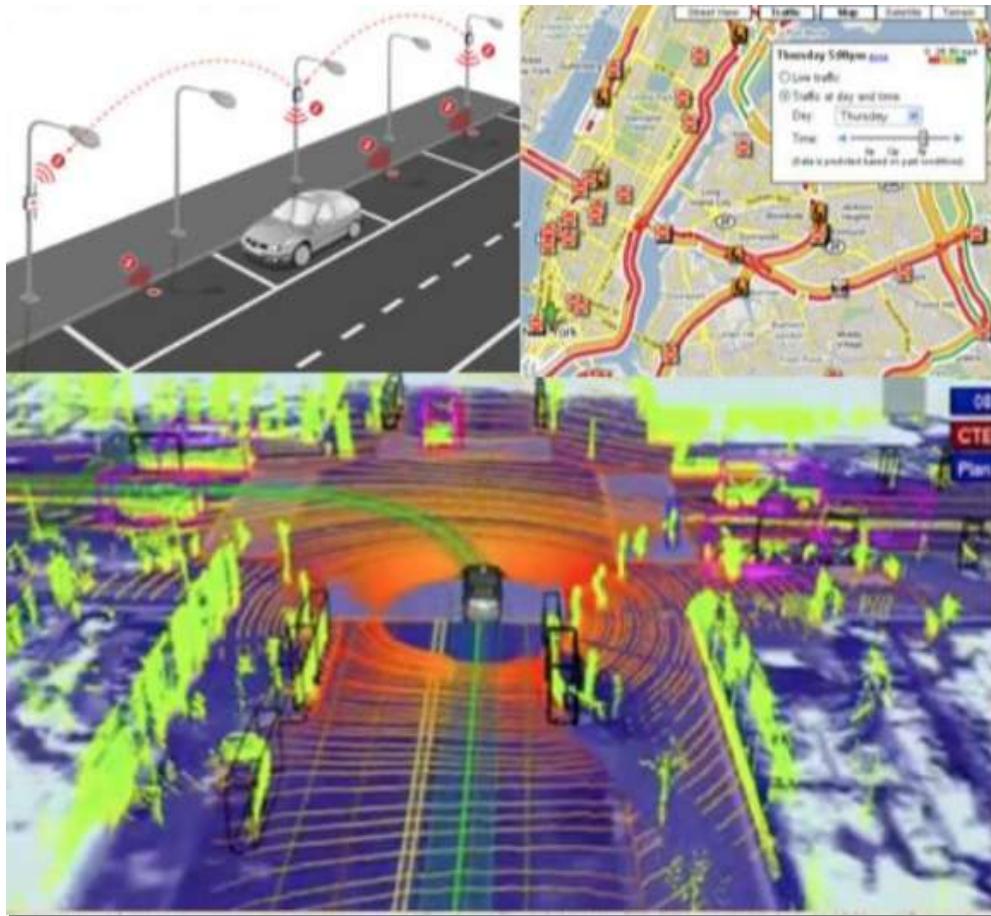
26sec

INDUSTRY INTRO

- Video gaming industry has seen tremendous growth over the past few years.
- Consumers spent almost \$131bn in 2018 as per few estimates. Expected to reach \$300bn by 2025.
- Industry under a huge business model transformation. Shifting from traditional “pay for cartridges” to “micro transaction and digital only” models. Digital sales reduce resale of cartridges.
- Mobile gaming penetration increased multi fold over the past few years and expected to touch \$130bn by 2025 contributing to almost 50% of the whole industry.
- Surprisingly middle aged women are the biggest demographic of gamers in the US.



Automotion



Google Self-driving car can create 1GB of data a second

