



Digital Technologies Update

Leon Katsnelson

IBM DBG, CTO Strategic Partnerships & Data Science Ecosystem

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EFAA International Conference

21 June 2018 in Brussels: Digital Transformation of SMEs

Who is Leon?

- I am a technology executive at IBM
- I am a “Product Guy”
- Launched products: some very successful and some failures
- I write and present
- I work with Fortune 500 and startups
- AI, Blockchain, Data Analytics, Cloud



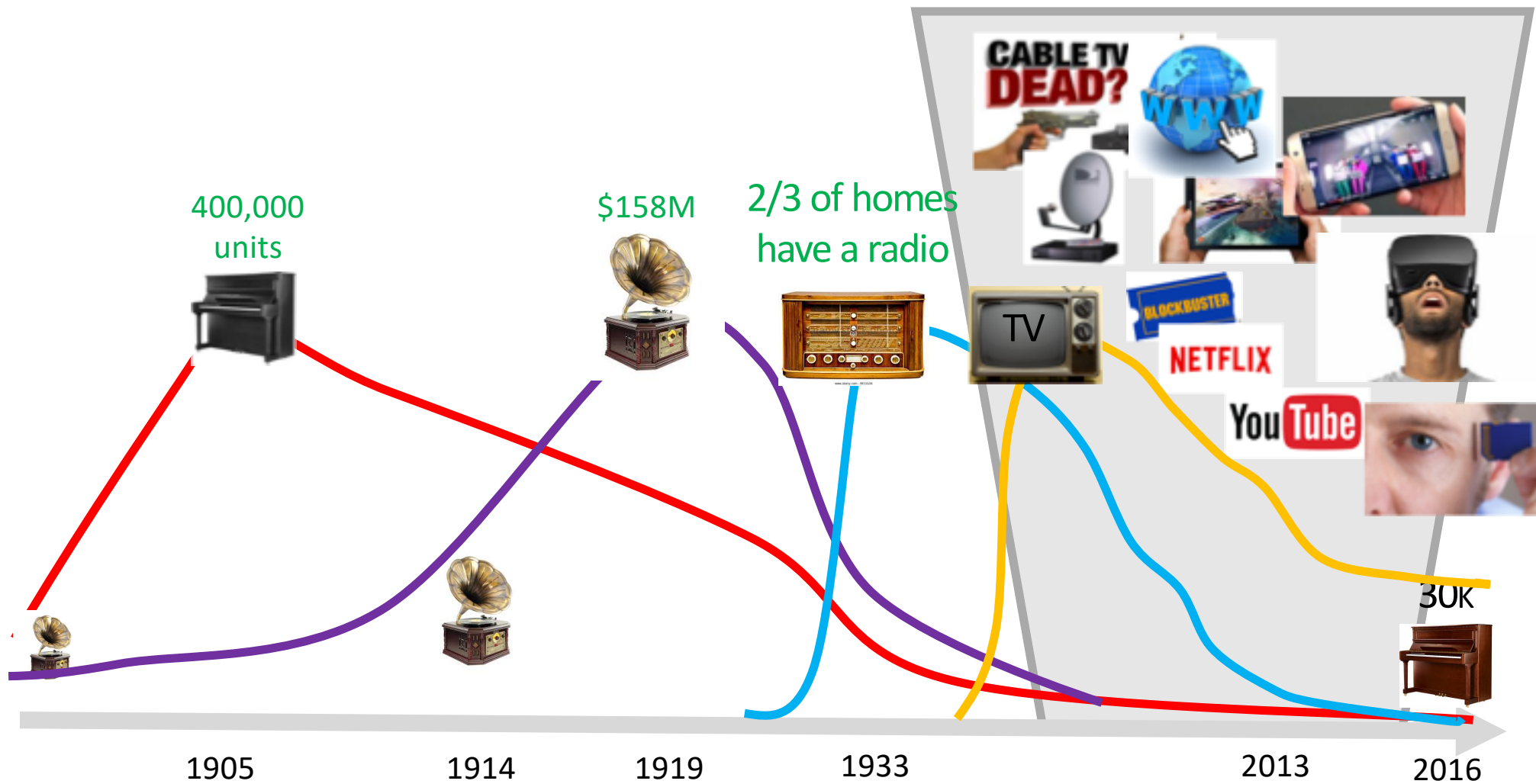
At the turn of the 20th century
piano is a primary source of
in-home entertainment.

Over 400,000 units were
made a year.

Manufacturers were dreaming
of a piano in every home.



*Photo by Scott Gibson, Morgantown photographer, ca. 1900-1915.
From the collection of the WVRHC.*



“In any industry, when the basis of competition becomes efficiency versus innovation and new solutions, disruption lies on the horizon.”

Soren Kaplan, Author of “Leapfrogging”

IBM bets the company on

- **Cloud**
- **AI**
- **Blockchain**





69 **Kevin Kelly** ✓

@kevin2kelly

Following



The business plans of the next 10,000 startups are easy to forecast: Take X and add AI.
[#theinevitable](#)

Eko Devices took
stethoscope and
added **AI**

to help cardiologists make
better diagnosis.

“Shazam for Heartbeats”



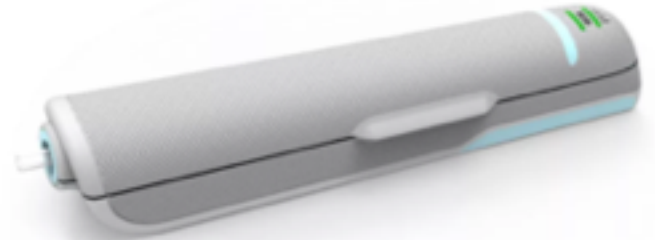
Studio 1 Labs took **Smart Fabric** and added **AI**
to help monitor patients without wires



QuiO took **syringe**
and added **AI**

to make for safer,
smarter drug delivery.

Si One



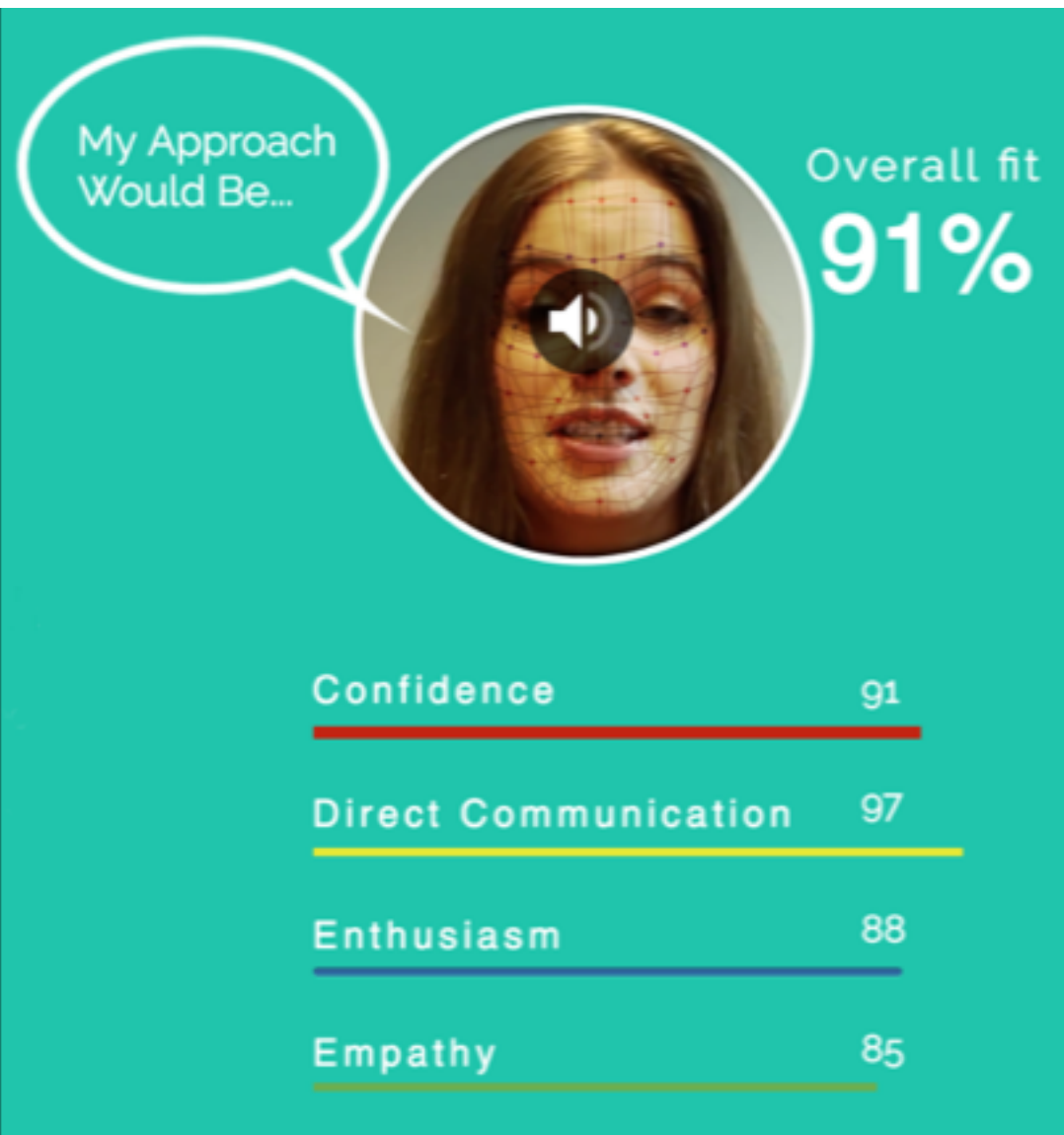
Si Pen



Knockri added AI to Video Interview

to help organizations
hire better.

A 2017 Deloitte report found **33 percent of survey respondents already use some form of AI** in the hiring process to save time and reduce human bias.



KONE took an **elevator**
and added **IBM Watson**

to fix problems before
they even happen.



crate (est.): 0

crate total: 0

add AI to
Supply Chain



Use of Machine
Vision to save \$10
million/year in lost
milk crates



Machine learning
is like a rocket
engine and data
is the rocket fuel.



Photo: NASA

Blockchain = Internet of Trust

**Blockchain to
accounting is what
internet is to Internet
of Things.**

KPMG – uses IBM Watson to add AI to Audit

“When it comes to audit, cognitive technology has brought us to the brink of unprecedented breakthroughs.”



Marc Macaulay
KPMG Cognitive Technology Audit Leader

MindBridge – add AI to Fraud Detection

Use of machine-learning to uncover errors, including material irregularities and anomalous transactions.



H&R Block - added AI to Tax Preparation

Learn 70,000 pages of tax code and deal with thousands of changes a year to help clients save on taxes.



Travel & Expense Management vendors add AI

- Auto expense submission and reimbursement
- Duplicate expenses
- Flag out-of-ordinary expenses
- Expense to Invoice matching using Visual Recognition
- Hotel recommendations
- Bots: virtual Expense & Travel assistants
- Sentiment analysis

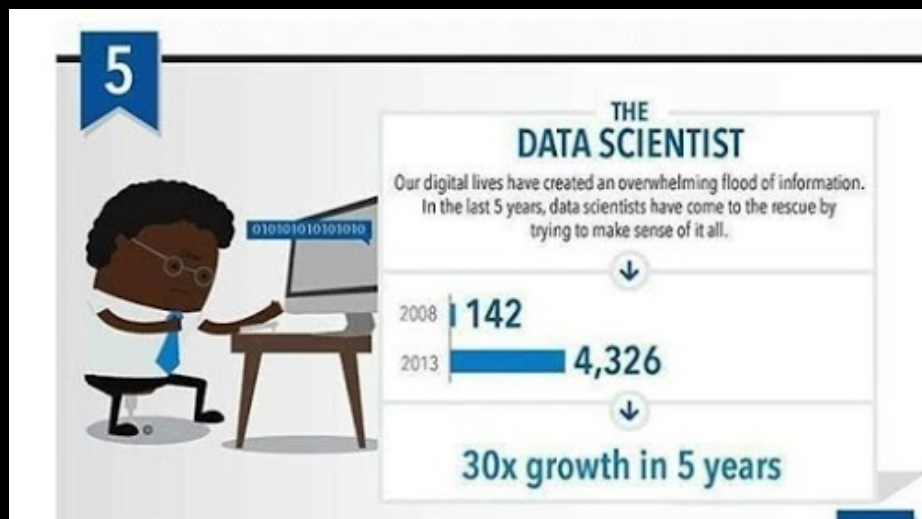


Add AI to anything

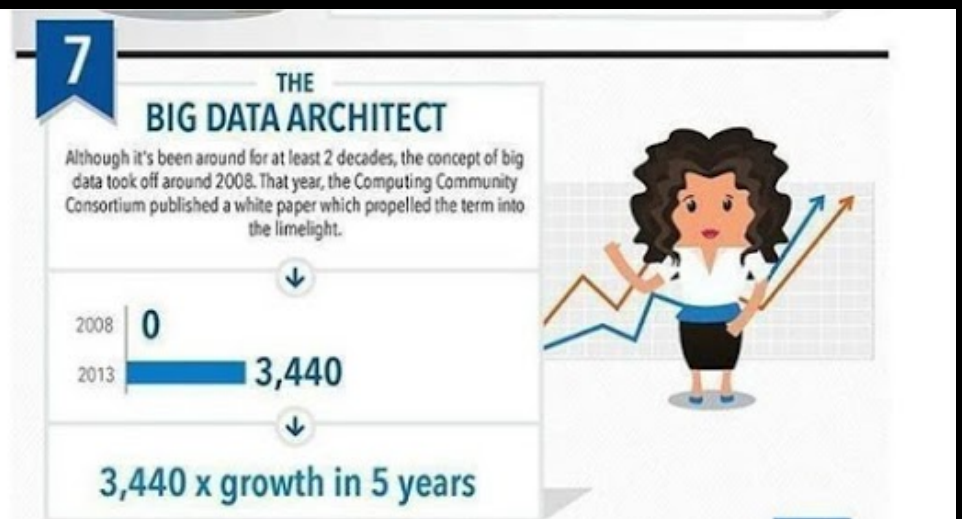
- Receivables & Remittance matching
- Expense audit
- Cash forecasting
- Compensation and bonus accruals
- M&A Due Diligence
- Contract review
- Risk management
- Inventory
- Weather
- Good will and other intangibles
- Bank reconciliation
- Forensic accounting
- ... anything

Meet your new colleagues

Data Scientist



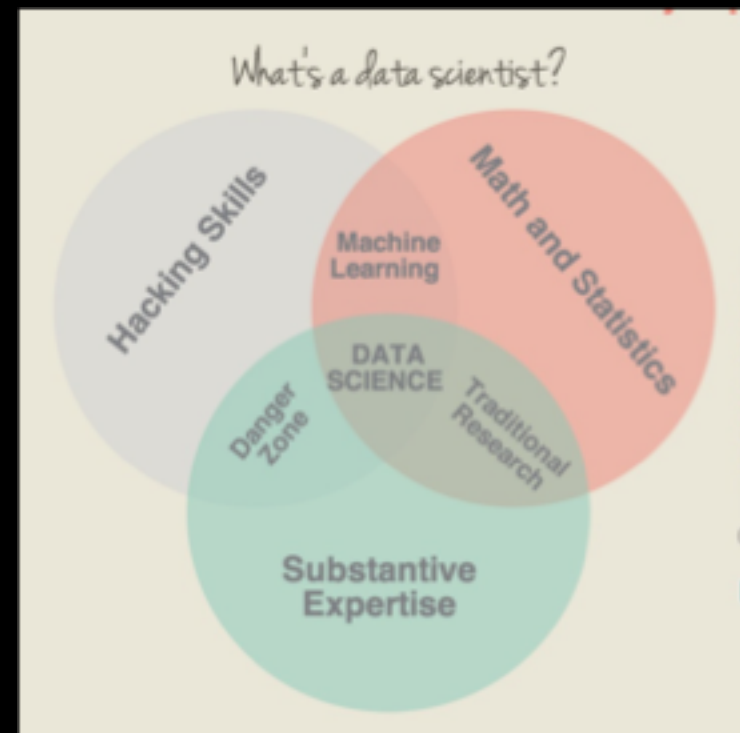
Data Engineer



Skill, not Bitcoin, is the currency of the future

Data Science teams are multidisciplinary:

- Programming Skills
- Statistics & Math
- Domain Expertise



AI without Data Scientists

- Add a chatbot powered by Watson to a website without programming
- Simple Wordpress plugin
- The only skill required is knowing how to talk to your clients



Lear how build your chatbot in 4 hours: <https://cognitiveclass.ai/courses/how-to-build-a-chatbot/>

Visual Recognition without Data Scientists

IBM POWERAI VISION DETECT HELMETS AND VESTS

PowerAI Vision: visual recognition by domain experts. No data scientist needed

Object detection in static images and video

Applicable to a variety of disciplines: medical imaging, visual inspection, security and homeland protection etc.

Get #FutureReady!

- **AI revolution** in accounting is here.
- **Larger firms:** move from process to insights-based culture, forming Data Science teams.
- **Smaller firms:** understand technology to select proper tools for yourself and your clients.

Get Skilled Now!

- Build Your Own Chatbot: <http://cocl.us/Chatbot-4-CPA>
- Watson Analytics: <http://cocl.us/WatsonAnalytics>
- Blockchain Essentials: <http://cocl.us/Blockchain-4-CPA>
- Python: <http://cocl.us/Python-4-CPA>