



AI, Automation & The Coyote

Sherri-Lee Mathers

A photograph of two young women with blonde hair, one in profile and the other with her back to the camera, engaged in conversation outdoors at night. The background is dark with some blurred green foliage. The text 'Take a few moments to CONNECT with your neighbour' is overlaid in white on the right side of the image.

**Take a few moments
to CONNECT with
your neighbour**

CPD Process

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- You must stay in the session for the duration of the training
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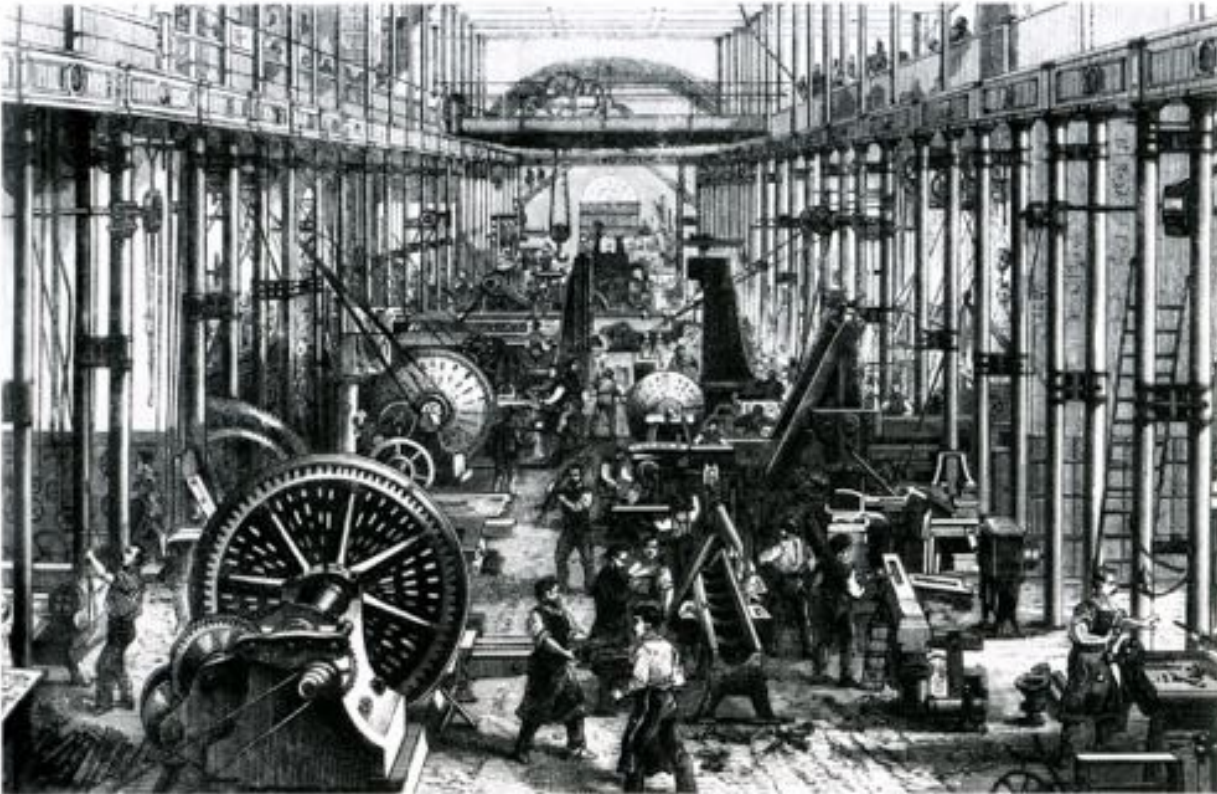
Today's speaker



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Industrial Revolutions

Industrial Revolutions



- 1st **Mechanical**
18th & 19th Century
Water & Steam Power
- 2nd **Science / Mass Production**
1870-1914
Electricity, Assembly Lines
- 3rd **Digital Revolution**
1980's
Computers, Internet

4th Industrial Revolution – 4IR



2016 Connectivity

- Robotics
- Artificial Intelligence
- Quantum Computing
- Internet of Things (IoT)
- 3D Printing
- Autonomous Vehicles, Drones

Automation & Artificial Intelligence

“

Intelligence is the ability
to adapt to change.”

Stephen Hawking



Image Source: ZME Science

Understanding Intelligence

Reinforcement Learning, the ability to understand and draw conclusions

Train a Puppy - Must first 'codify/plan' the behavior

- Show toy - give reward
- Picks up toy - give reward
- Encourage bring toy to you - give reward
- Doing it on their own without a reward is **Intelligence**

Algorithm is a process or set of guidelines that describe how to perform a task.



Understanding Automation & AI

Automation

- Where 45% of repetitive work can be done automatically
- Instruct it to 'fetch' data
- Instruct to send a report by email

Artificial Intelligence

- Computer remembers and understands the *expected* behavior of getting data & emailing
- *Understands* what to do with the inputs its been given because its been *trained* with similar inputs with a known outcome
- Computer is NOT a terminal

“

The pace of change has never been this fast, yet it will never be this slow again.”



Image Source: pm.gc.ca

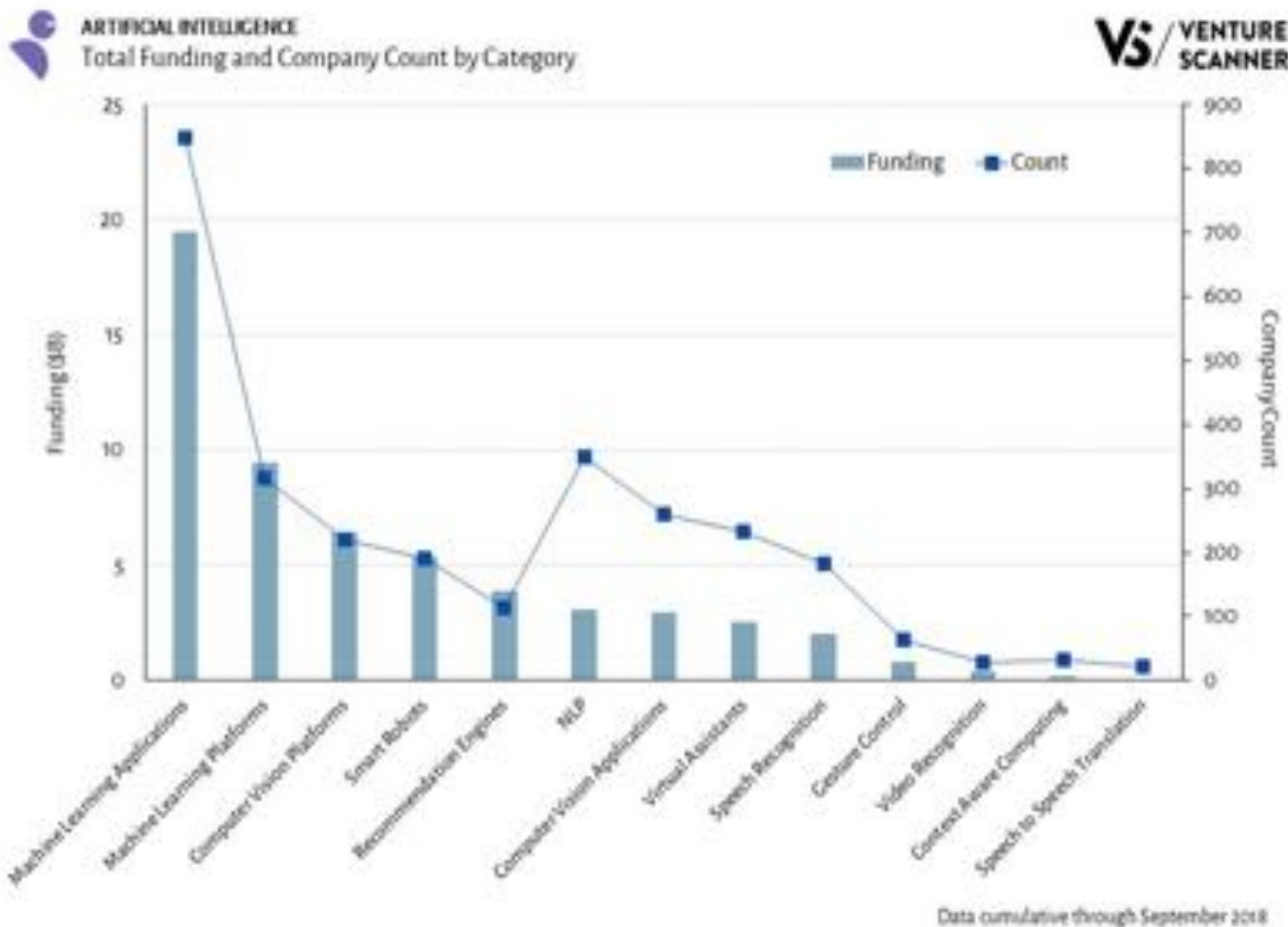
Justin Trudeau, Prime Minister of Canada

Canadian AI Ecosystem 2018

ELEMENT^{AI}



Source: Canadian AI Ecosystem Report jfgagne.ai.



Machine Learning Applications

Apply self-learning algorithms to optimize specific business operations. **\$19 Billion**

Source: <https://www.venturescanner.com/blog/2018/artificial-intelligence-sector-overview-q3-2018>

Applications of Machine Learning



- Speech Recognition / Natural Language Understanding
- Pattern Recognition
- Robotics
- Computer Vision

Applications of Machine Learning

Speech Recognition

Taking sound waves and building text out of it (understanding spoken words)

- Google home “hey google”
- Amazon Echo using Alexa
- Apple Siri
- Microsoft Cortana

Natural Language Understanding (NLU)

Text to machine understanding (enables human-computer interaction).

- Chata.ai ‘how many sales transactions in California’



Applications of Machine Learning

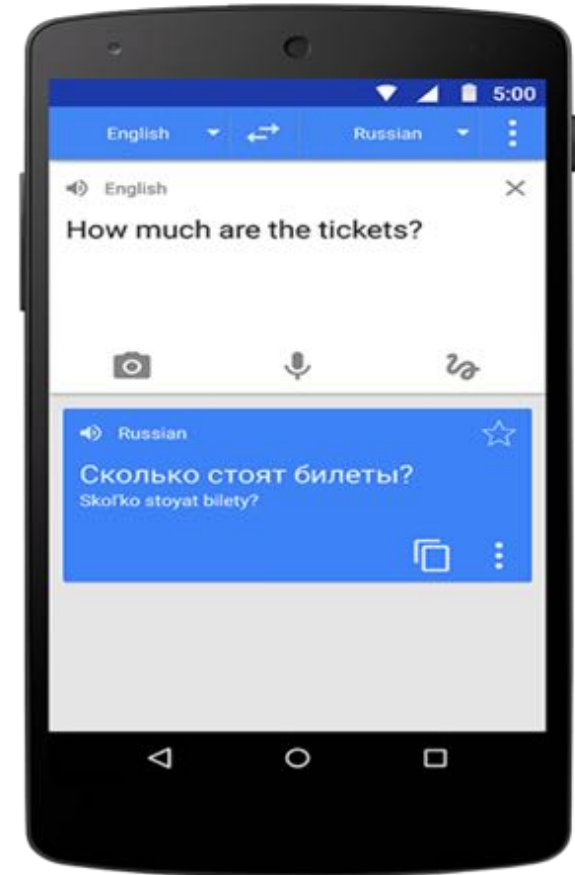
Pattern Recognition

Machine Translations

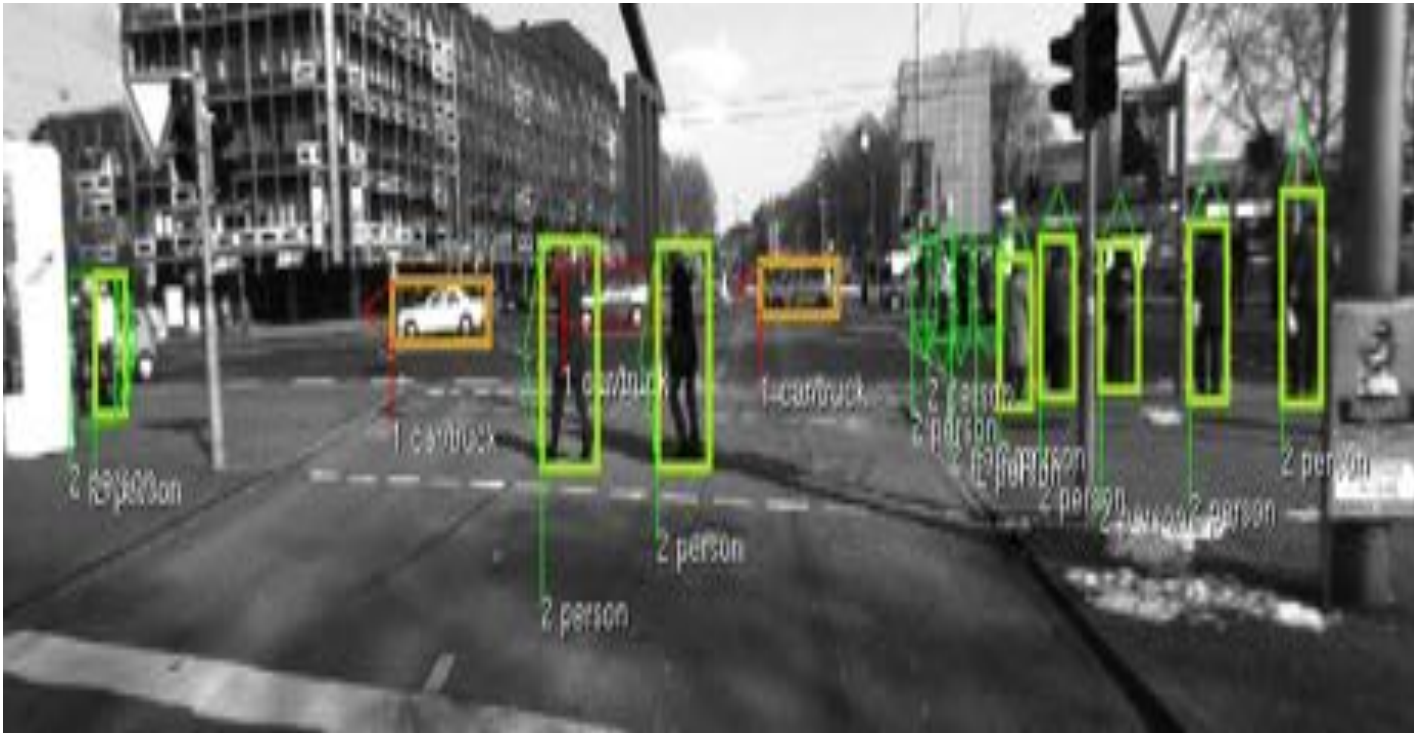
- Large Amounts of data +
- Mass computation power

AI Auditor

- Complex algorithms, insights
- Question / Answer
- Data outliers
- Risk Assessment



Applications of Machine Learning

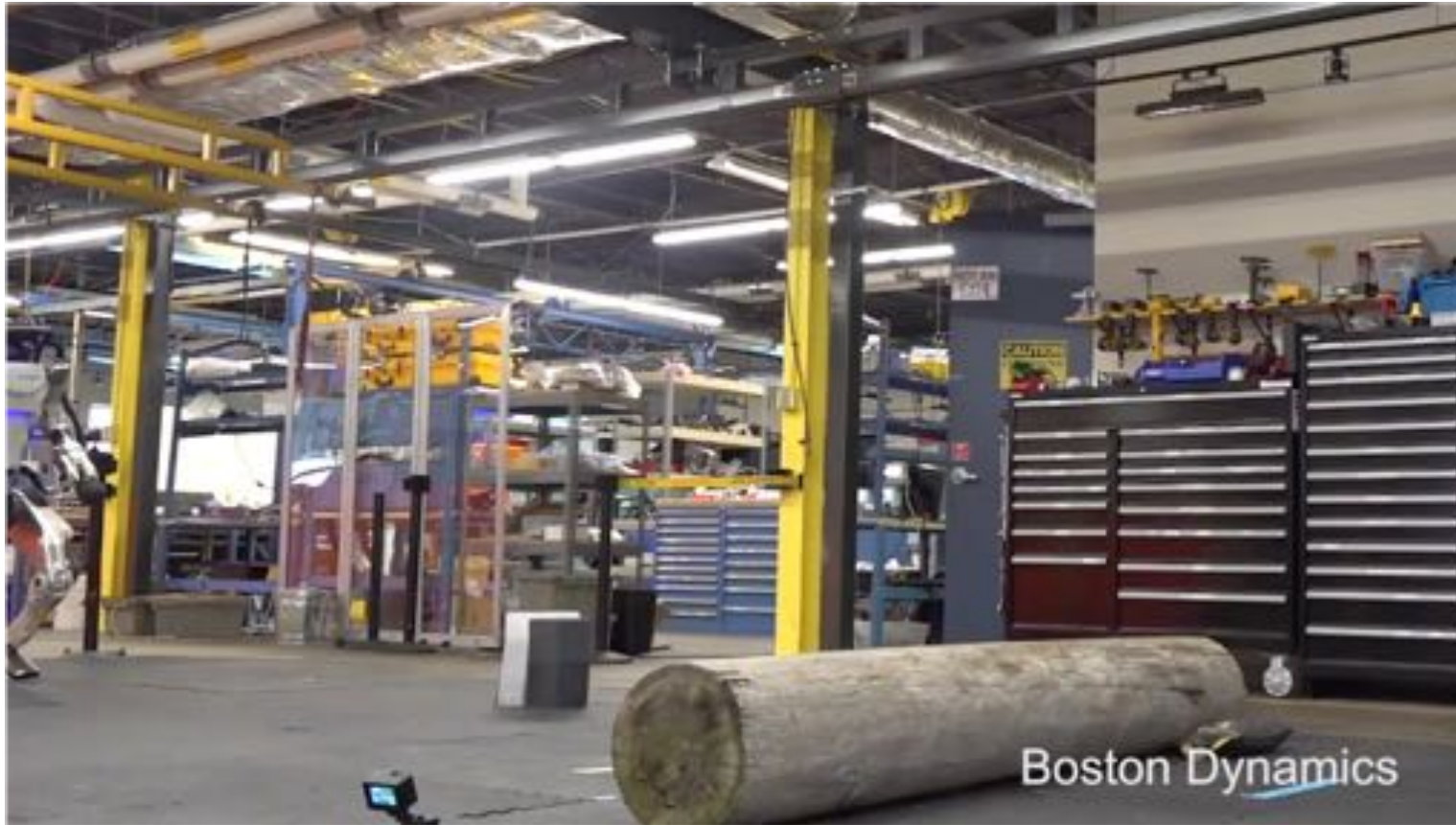


Pattern Recognition

- Automated recognition of patterns and irregularities in data (Facebook Photo tagging)
- Medical Field (irregular cells / image biopsies)
- Visual questions
- Identify objects in photos (count blood cells, cars)



Applications of Machine Learning



Robotics

- Intelligent physically embodied machine
- Perform tasks autonomously
- Manipulate their environment
- Warehouses / Human Support Robots / Room Service

Applications of Machine Learning



Computer Vision

- Image classification (misclassification)
- Answer visual questions
- Raw pixels to predict final output

Image Source: <https://medium.freecodecamp.org>

Applications of Machine Learning

IceBerg Hockey Analytics

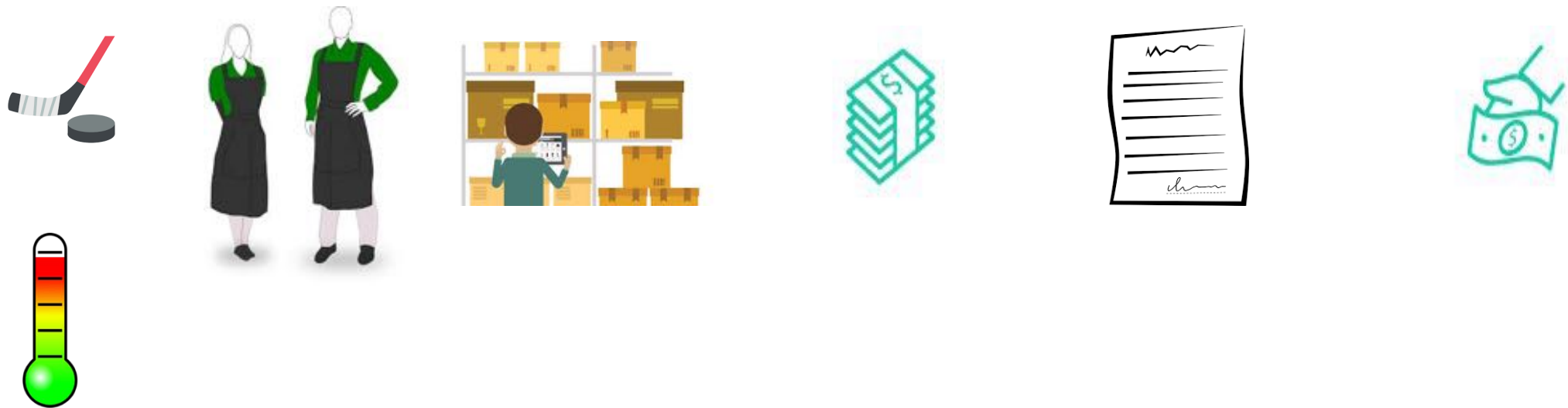


Applications of Automation & AI in Accounting

- Assurance
- Auditing
- Back Office Automation
- Compliance
- Customized Dashboards
- Customer Service Chat Bots
- Fraud
- Recruitment
- Strategic (Predictive Cash Flow)
- Smart Phone Integration
- Transaction Automation
- Virtual Assistants



Business of Today/Tomorrow Using Automation & AI



What do we do now?

Dodo Bird



Image Source: Wikipedia

EXTINCT

- Stable / Secure no predators
- Unable to Distinguish Predators from Friends
- Didn't recognize change and became complacent



It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change.”

Charles Darwin

Urban Coyote



Traits

- Adaptable
- Opportunistic Problem Solver
- Excellent Vision
- Speedy & Nimble
- Versatile (works alone/teams)
- Distinguish Predators from Friends
- Never Complacent

Be Like the Coyote

Coyote Traits

- Adaptable
- Opportunistic Problem Solver
- Excellent Vision
- Speedy & Nimble
- Versatile (works alone/teams)
- Distinguish Predators from Friends
- Never Complacent

New Accounting Professional

- Lead Customers through Change (expand)
- Provide more value remove customers anxiety
- See further ahead & proactively create systems
- Current / 'Live' is the new normal
- Work as a team (communicate / build trust)
- Say goodbye to being a 'traditionalist'
- If you don't change your competition is

Accounting Data Manager ADM formerly ‘Bookkeeper’



Skill Up

- Need to be both Left & Right Brain
- Ability to communicate (connect)
- Planning (cash flows, monitor budgets)
- Understand where the data goes (mapping/clean-up)
- ‘Canary in the mineshaft’ (client education)

Data

- Process Design & Interpretation (needs analysis)
- Security (risk management)
- Recovery (backups)
- Integrity (clean data)

Accounting Professionals

Small Firms

- Niche (Boutique Firm)
- Small Business Specialist or Contract CFO (drive financial outcome to business goals)
- High Level Strategy & Business Transformation (expertise to the table)
- A 'different type of Engagement / Relationship'

Data

- Benchmarking
- High Level Analysis
- Decision Recommendation



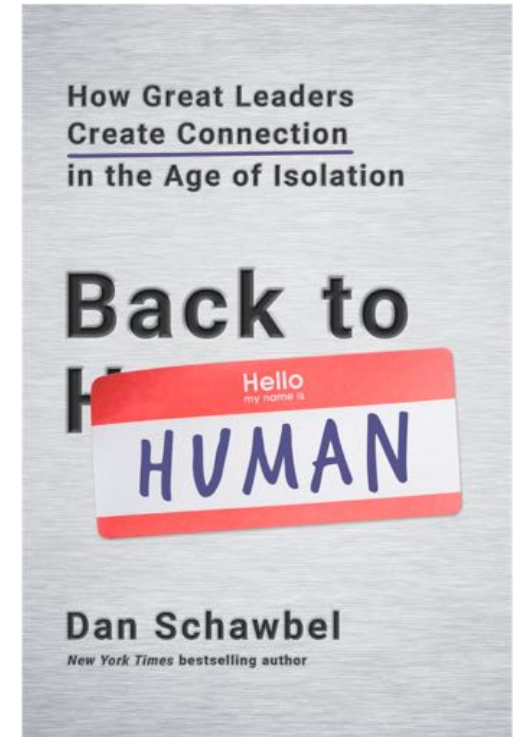
Communication

- Engage More Often / Accountability
- No more 'Greek speak'
- Relevance

USE the TECH but be PRESENT
COMMUNICATION is KEY

“

Optimize our experiences ...Use Automation and AI to provide insights but then focus on being present. ‘forget the tech’



Dan Schawbel

Customer-centric

Business

- Amazon
- Netflix
- Uber
- Apple Music
- Air B&B

Solve

- Retail Industry bad customer service
- Convenience & Late Fees
- Over regulation, fare control & #s (availability)
- Individual song purchases Not Albums
- Availability & Pricing

MUST BE CUSTOMER-CENTRIC to SURVIVE

New Accounting Professional

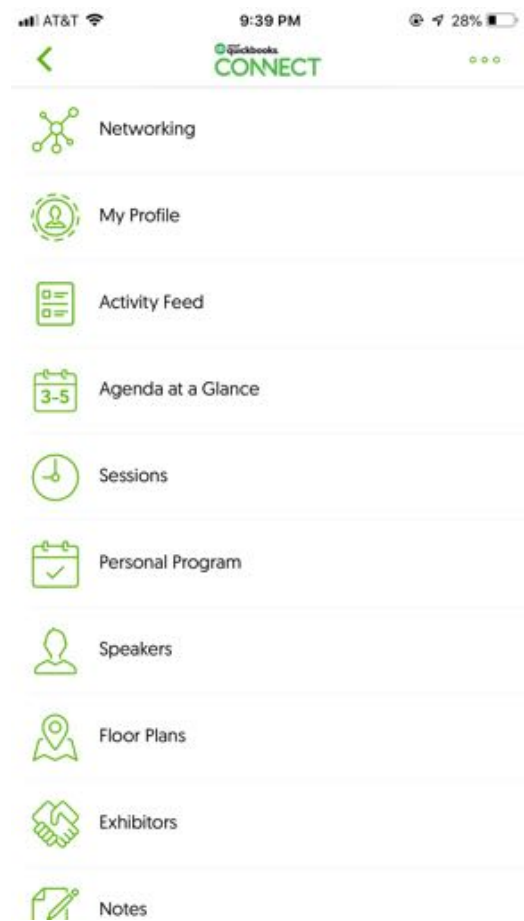
- Adaptable - Say goodbye to being a 'traditionalist'
- Leave large growth to large firms, Boutique / Niche
- Skill Up
- See further ahead & proactively create systems and be able to interpret data (specialized knowledge that translates data into wisdom)
- **CUSTOMER-CENTRIC**



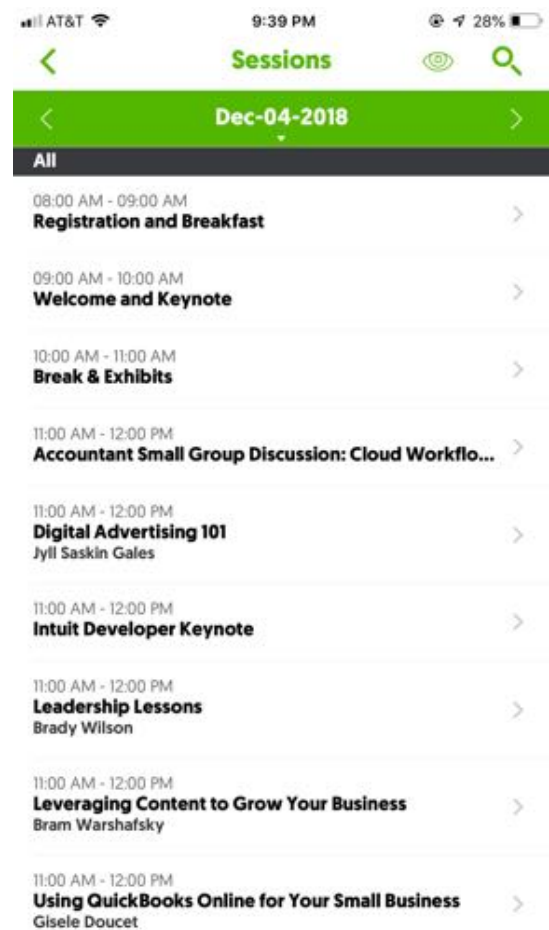
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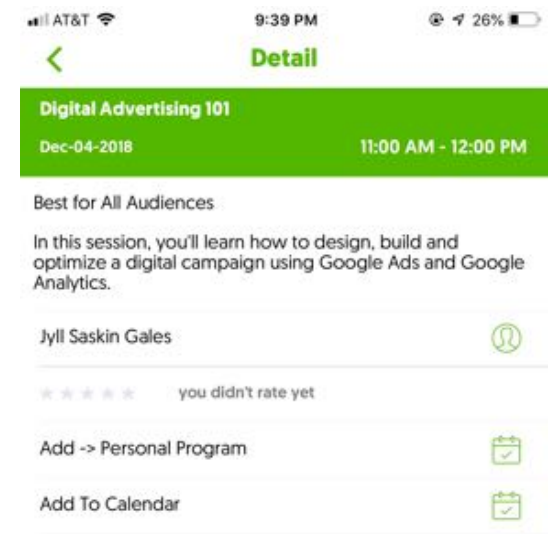
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	Leveraging Content to Grow Your Business	+
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	Using QuickBooks Online for Your Small Business	+
	Warrior Approach to Productivity • session repeats	+
	Accountant Small Group Discussion: Cloud Workflows	+
	Intuit Developer Keynote • session repeats	+

