

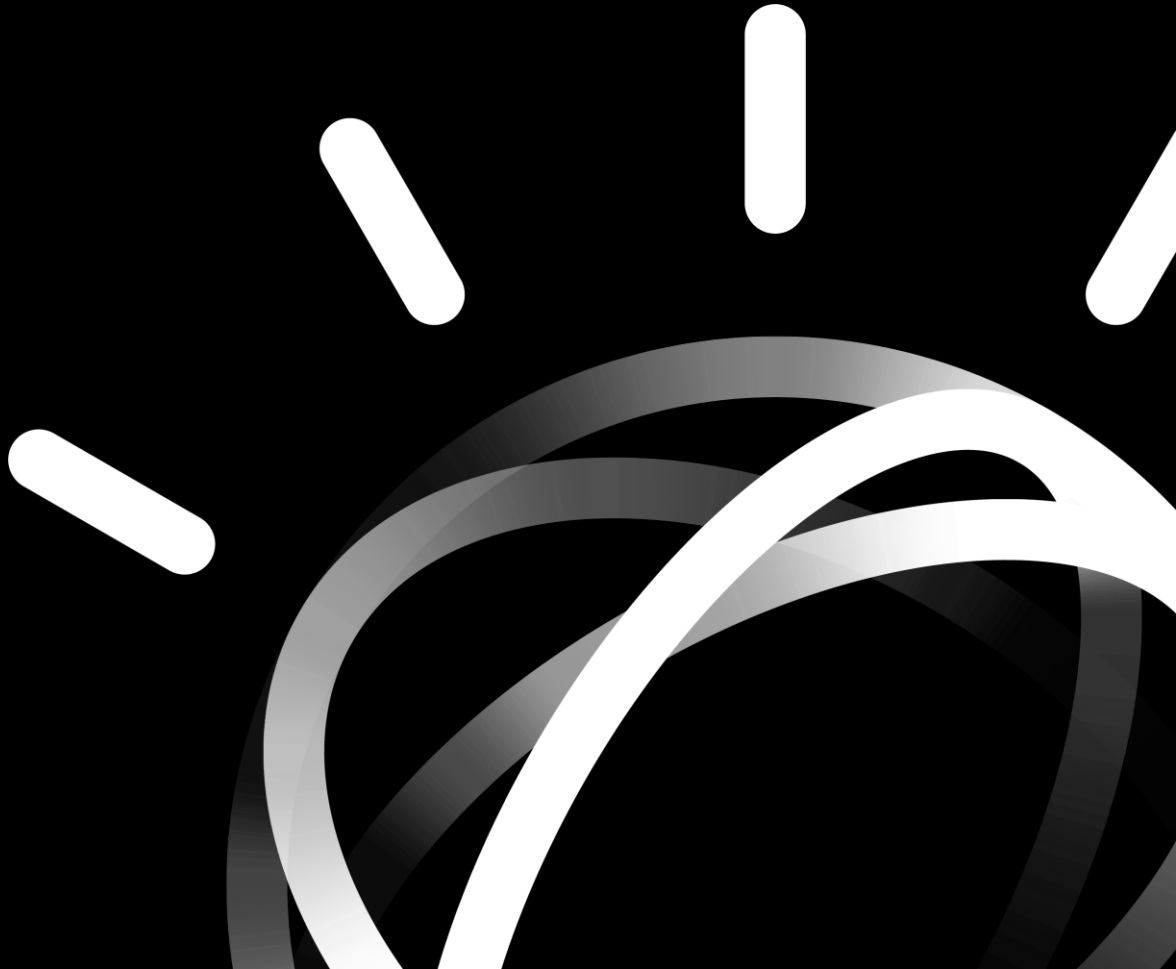
# Are you AI-Ready?

**Deepika Devarajan**

Product Management

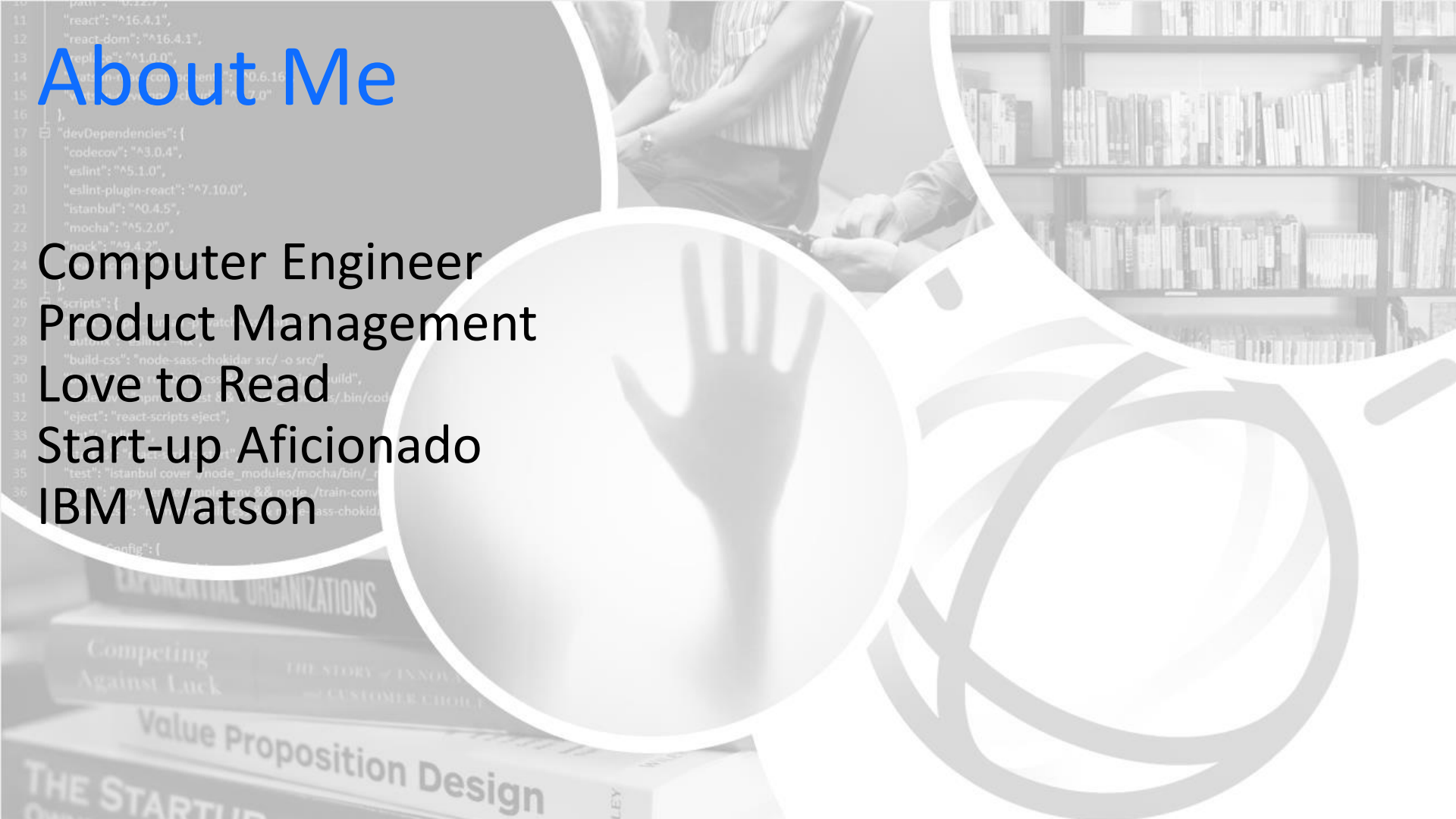
Data and AI

IBM Pittsburgh



# About Me

Computer Engineer  
Product Management  
Love to Read  
Start-up Aficionado  
IBM Watson



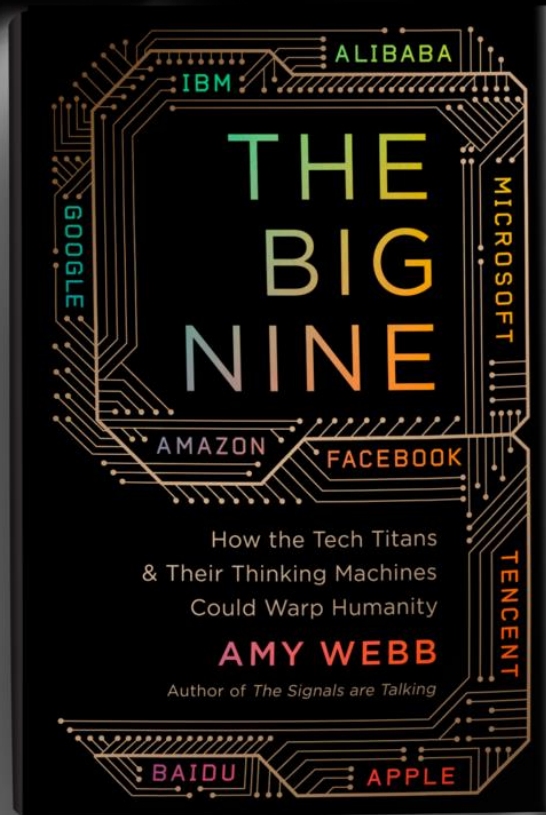
**disclaimer**



# G-MAFIA



# BAT



**opportunity**

# AI skills are super hot

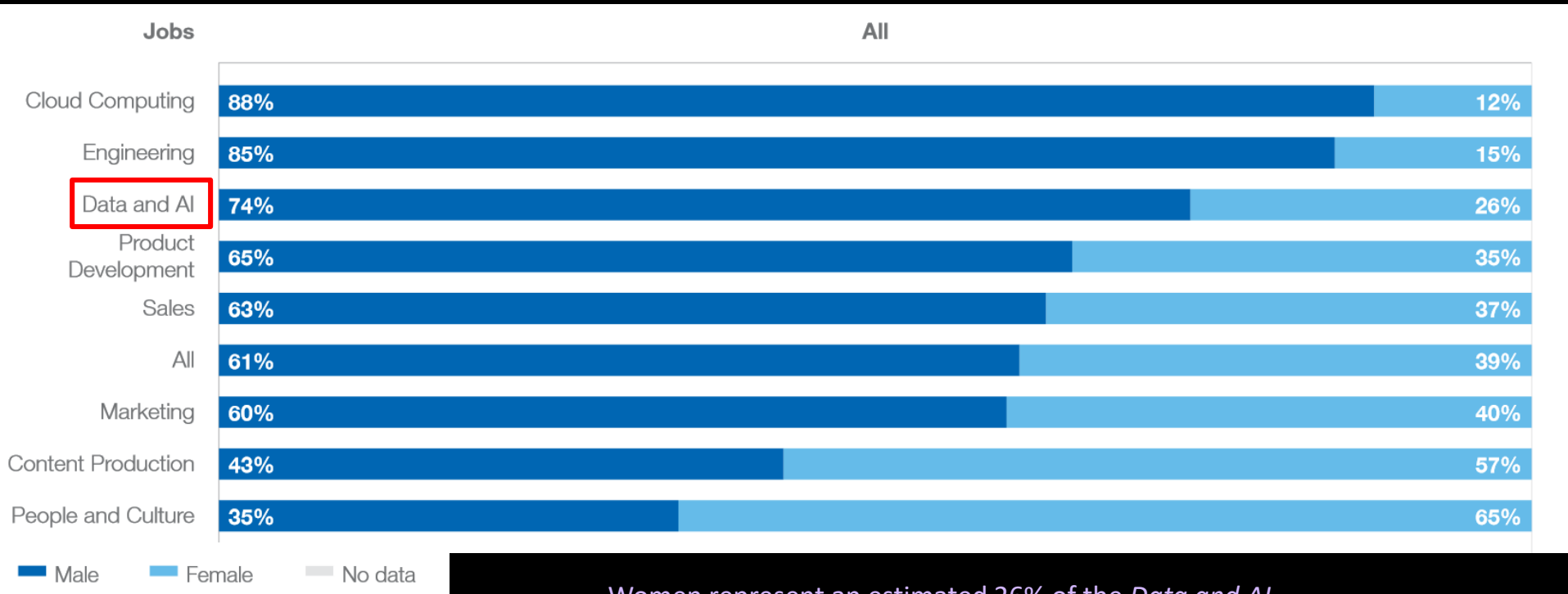
## 2020 Emerging Jobs Report - LinkedIn

The grid contains the following slides:

- 2020 Emerging Jobs Report (Intro by Guy Berger, Principal Economist)
- 2020 U.S. Job Trends
- 2020 U.S. Industry Trends
- 2020 U.S. Location Trends
- The top 15 emerging jobs in the U.S.
- Artificial Intelligence Specialist
- Robotics Engineer
- Data Scientist
- Full Stack Engineer
- Site Reliability Engineer
- Customer Success Specialist
- Sales Development Representative
- Data Engineer
- Behavioral Health Technician
- Cybersecurity Specialist
- Back End Developer
- Chief Revenue Officer
- Cloud Engineer
- JavaScript Developer
- Product Owner
- Emerging Jobs Methodology
- Thank you!

# Women have an opportunity to fill the skills gap

2020 Gender Gap Report - World Economic Forum



Women represent an estimated 26% of the *Data and AI* workforce, and that number gets smaller as you move up the leadership ranks

Disruption is upon us



A taxi company that owns no cars



airbnb

An accommodation company that owns no real estate



A large retailer that carries no inventory



A media company that owns no content



**artificial  
intelligence**

**Consumer AI**

**VS.**

**AI for Business**

**defining  
AI**

Big Data

Machine Learning

Deep Learning

Transfer Learning

Fairness & Bias Mitigation

# How AI works



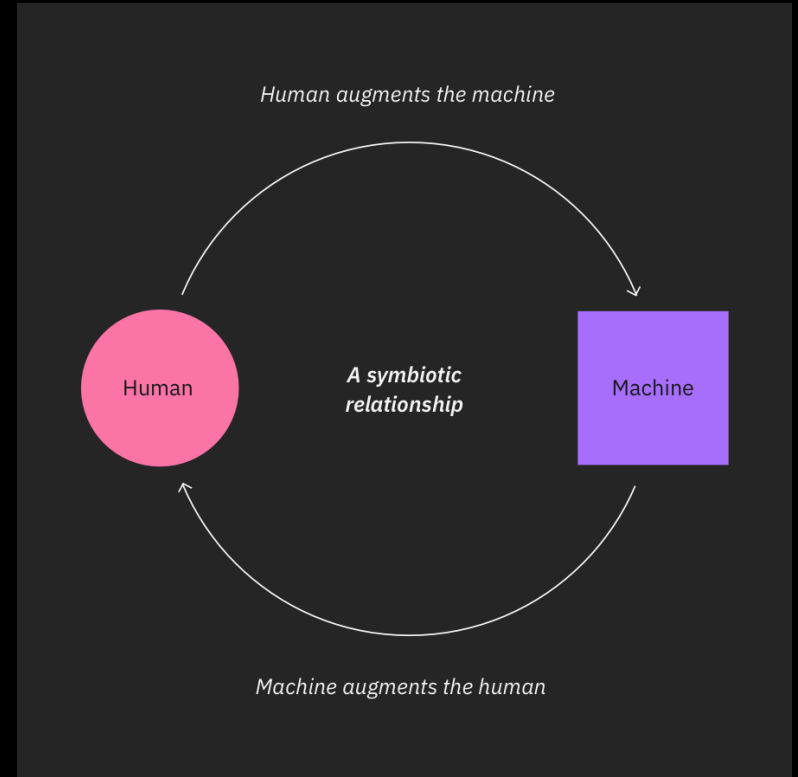
AI augments human intelligence

Understands

Reasons

Learns

Interacts



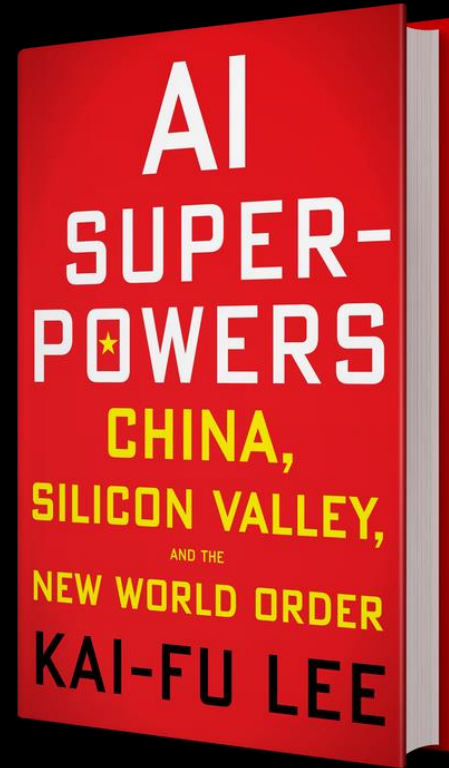
02:35:02

# Project Debater

The next step is to listen to  
the opponent's response,  
digest it and build a rebuttal.



Internet AI  
Business AI  
Perception AI  
Autonomous AI



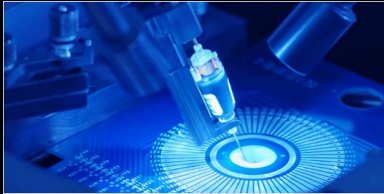


**AI**  
**adoption**

# AI for businesses



# AI disrupts across industries



## How cognitive manufacturing is transforming electronics production

A core early adopter group has kicked off the generation of cognitive manufacturing, gaining both higher ROI and productivity.



## Better health outcomes with AI-powered virtual assistants

AI-enabled virtual assistants can open the door to more, and better, healthcare choices.



## Travel: Global industry agenda

Travel providers with the insights to understand the future will be the ones who shape it.



## Shift to enterprise-grade AI for chemicals and petroleum

This report reveals how chemicals and petroleum leaders are integrating AI into their organizations.



## Building artificial intelligence into buildings

Integrating artificial intelligence with building systems and devices can improve building efficiency and experiences.



## AI can help insurers provide better customer experience

To stay relevant, insurers should shift from reactive risk underwriting to proactive prevention aimed at better outcomes for customers and themselves.



## AI and automation pay big dividends for telecom

A customer-centric, agile design married with an intelligent automation platform can transform telecom processes, and drive profound cost reduction.

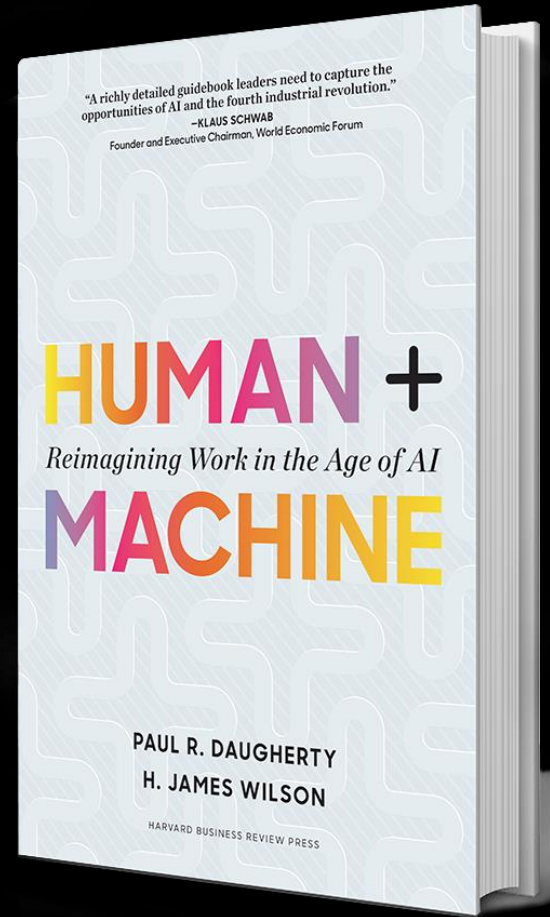


## Intelligent automation for consumer products and retail supply chains

The pervasive challenge faced by consumer products manufacturers and retailers alike is how to plan and execute as an end-to-end supply chain.

# Clinical Trials





# Chieko Asakawa, Accessibility Research Pioneer



- Research Fellow
- Visiting CMU Professor
- Inducted to SWE National Inventors Hall of Fame
- Launched Navigation App at Pittsburgh International Airport
- Blind since age of 14

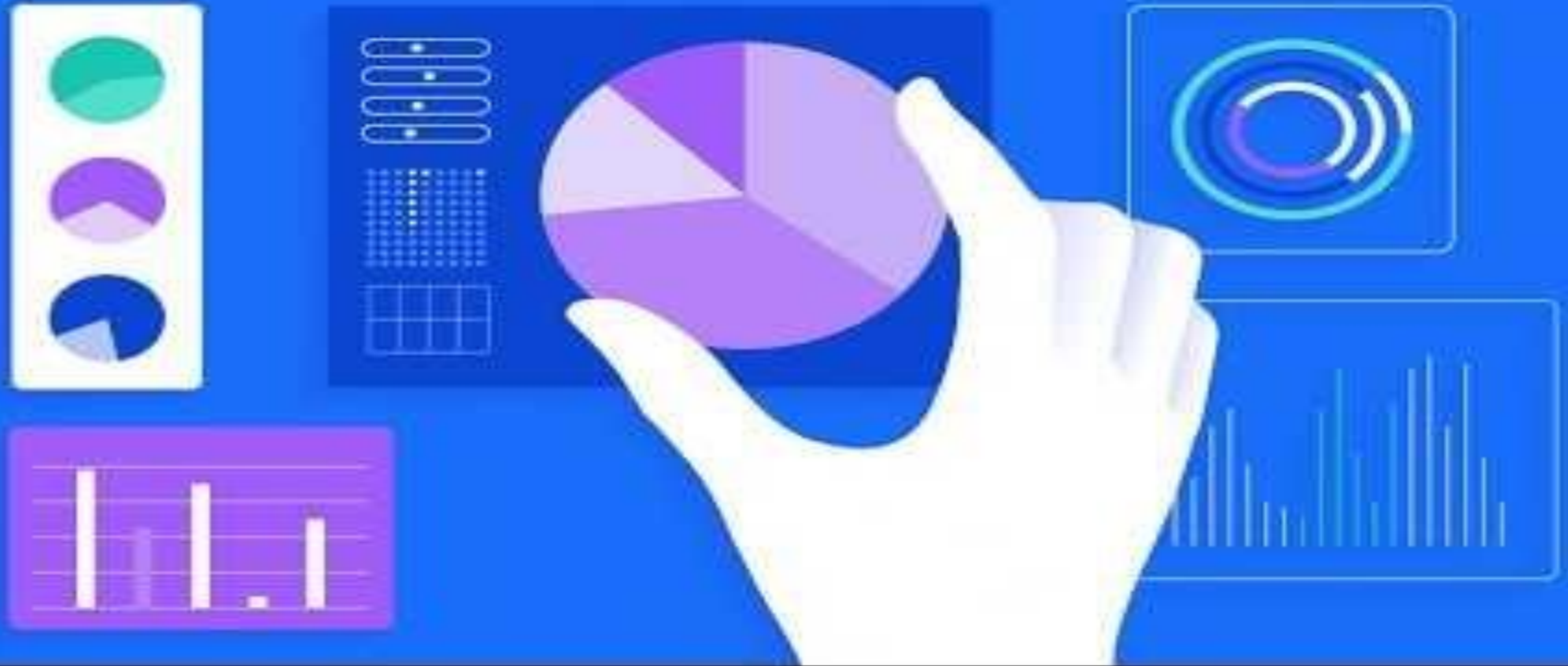
**trust and  
transparency**

# IBM's Principles for Trust and Transparency

- The **purpose of AI** is to augment human intelligence
- Data and insights **belong to their creator**
- New technology, including AI systems, must be **transparent and explainable**



# Trust and Transparency



# Everyday Ethics

## Everyday *Ethics* for Artificial Intelligence



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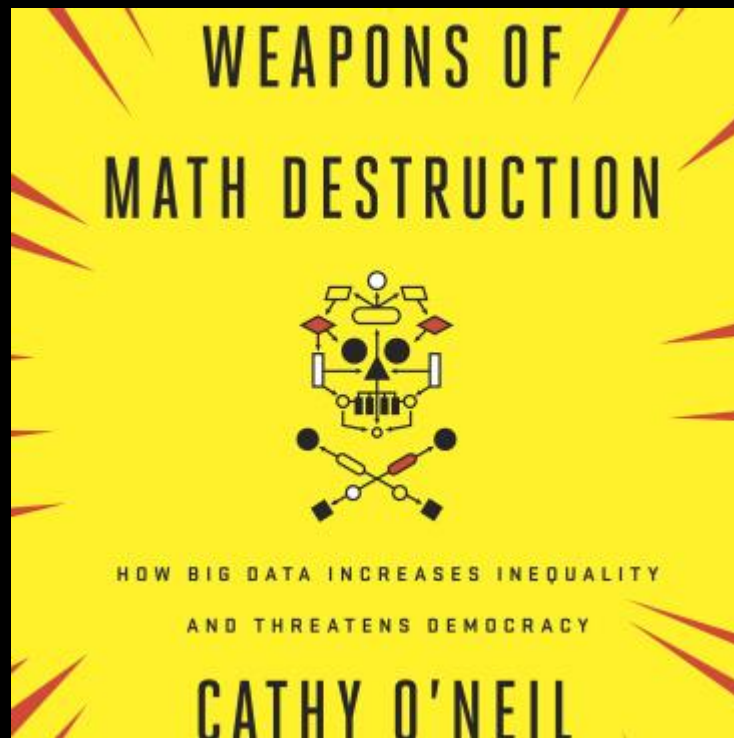
<b>Using this Document</b>	<b>08</b>
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07

A hotel chain wants to embed artificial intelligence into an in-room virtual assistant/concierge to augment and personalize their users' stay. We'll use the project team in charge of this effort as an example throughout the document. This conversational agent will include capabilities such as:

- Agentive-style assistance.
- Introduction to their room and services in their preferred language.
- Control of room facilities through natural language.
- Sending a request directly to the service team through the in-room virtual assistant.

# Bias in Algorithms and Math Models



# AI Predictions for 2020



1. **AI will understand more, so it can do more**
2. **AI won't take your job, but it will change how you work**
3. **AI will engineer AI for trust**
4. **AI's appetite for energy demands greener tech**
5. **AI-powered lab assistants will discover new materials**

# AI Applications



GRAMMYConnect



<https://www.grammyconnect.com/>

# Fantasy Football

# What's Next?



[Learning Paths](#) [Courses](#) [Mobile Apps](#) [Badges](#) [Business](#) [Competitions](#)

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## Data Science, AI, Blockchain and Cloud Computing Courses

Build Data Science and Cognitive Computing skills  
for free today.

[Free Courses Sign Up](#)

Support

## What are the benefits?



**IT'S  
FREE**

Our courses are free so  
you have nothing to lose!



**EARN  
BADGES**

Earn badges for your  
portfolio



**EXPAND YOUR  
KNOWLEDGE**

We have courses for all  
skill levels





# Earn badges as you learn

<https://cognitiveclass.ai/>

## COURSES



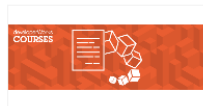
**Introduction to Machine Learning with Sound**  
IBM Developer Skills Network  
DW0101EN

Beginner



**Python for Data Science**  
PY0101EN

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**Blockchain Essentials**  
developerWorks BC0101EN

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**Build an IoT Blockchain Network for a Supply Chain**  
IBM Developer Skills Network  
BC0202EN

Intermediate



**Build Swift Mobile Apps with Watson AI Services**  
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SW0101EN

Beginner



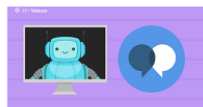
**Robots are coming! Build IoT apps with Watson AI, Swift, and Node-RED**  
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ML0201EN

Intermediate



**Machine Learning with Python**  
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Intermediate



**Build Your Own Chatbot**  
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**IBM Blockchain Foundation Developer**  
IBM Skills Network BC0201EN

Intermediate

## Badges



Lightbend Reactive Architecture: Advanced



Reactive Architecture Foundations



Reactive Architecture: Building Scalable Systems



Introduction to Machine Learning with Sound



Applied Data Science with R



IBM Cloud Essentials



Node-RED: basics to bots



Machine Learning with Python



Robots are coming! Build IoT apps with Watson AI, Swift, and Node-RED

