The background features a light gray silhouette of a human head in profile, facing left. Inside the head, there are three interlocking gears of different sizes and colors (gray, red, and white). To the left of the head, there are several large, semi-transparent gears in shades of gray and red, some overlapping each other.

ARTIFICIAL INTELLIGENCE AND PUBLIC HEALTH

Thomas Piggott MD MScPH CCFP
 McMaster University

DISCLOSURES OF INTERESTS



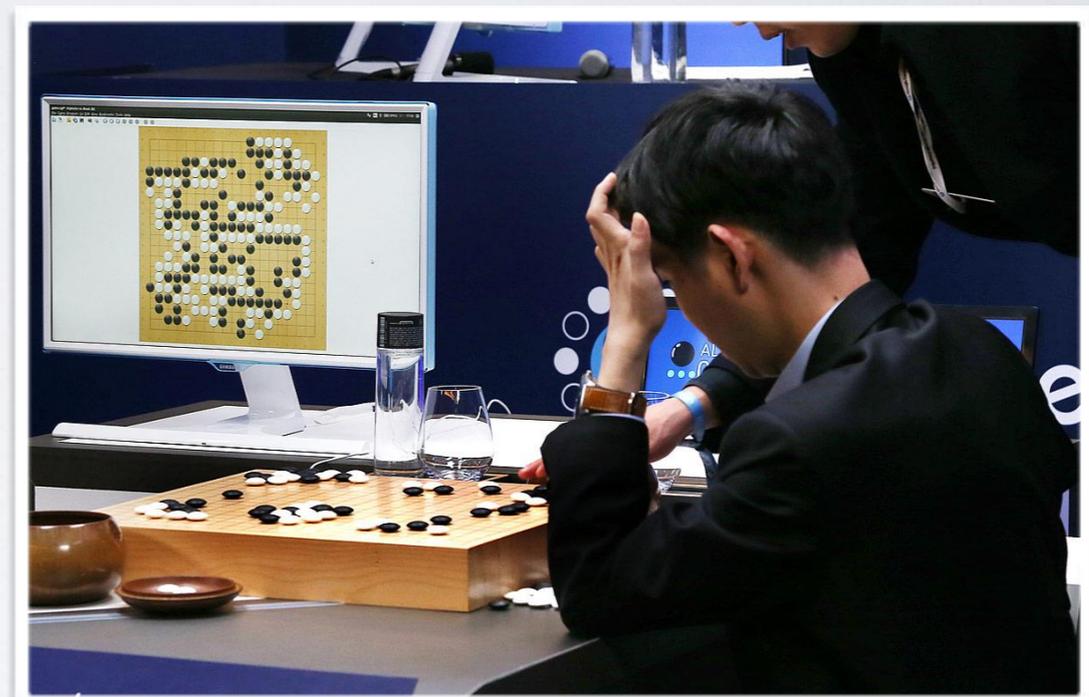
- No financial interests or relationships with industry to declare.



Hey Siri, What is Public Health?

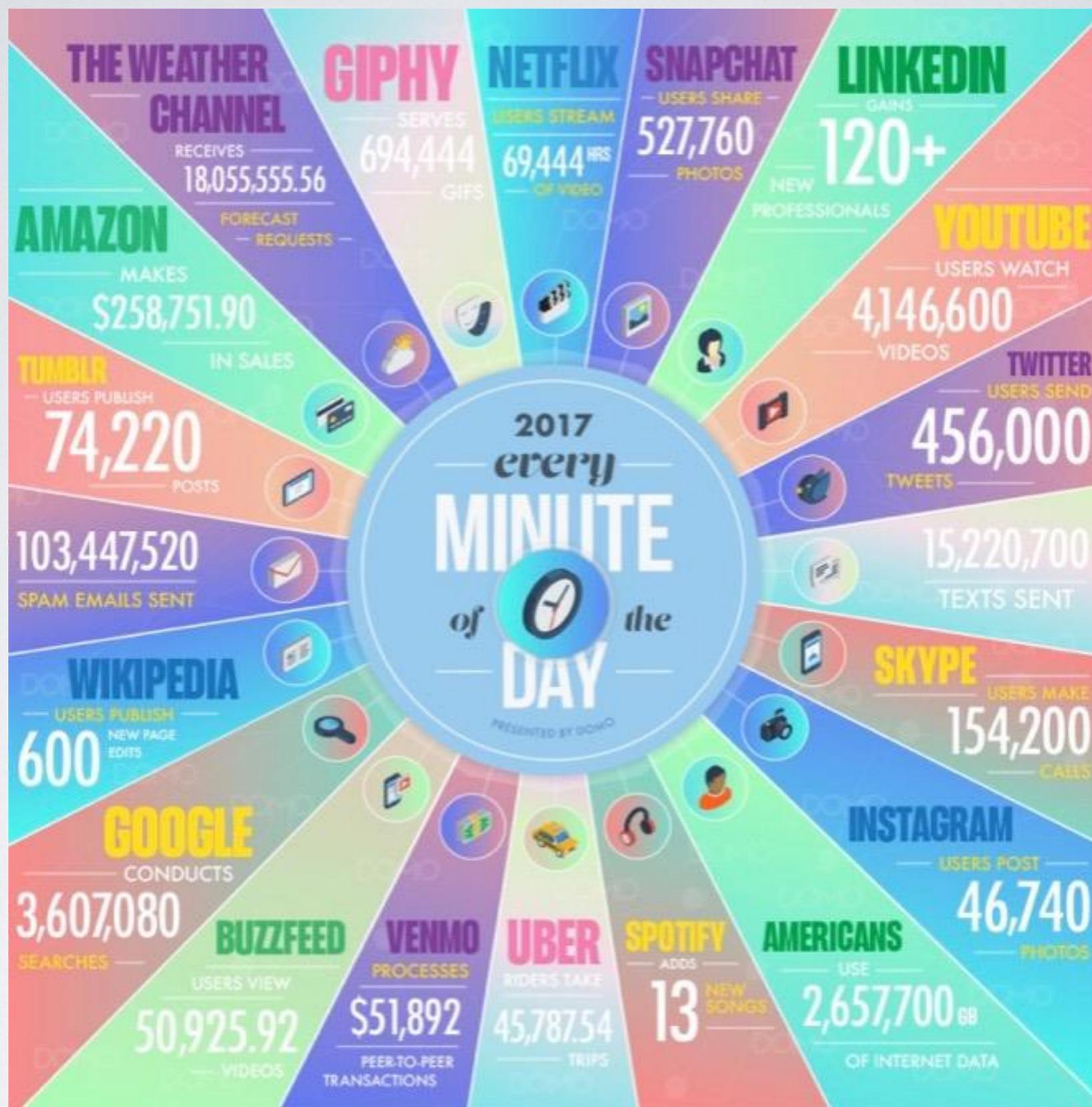






 AlphaGo





Ref: Data Never Sleeps 5.0 www.domo.com





Analysis
Big Data

Social
Virtual Assistance

Big Data

Unsupervised
Supervised

Artificial Intelligence

Learning

Machine Learning

Increasing Computing Power

Artificial General Intelligence

Deep Learning

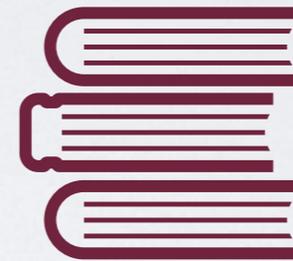
Robotics

Language
Natural Language Processing

OUTLINE



Job
s



Research



Health



Equity





PUBLIC HEALTH JOBS



Medical Statistician

Epidemiologist

Early Childhood Educator

Nurse

Policy Analyst

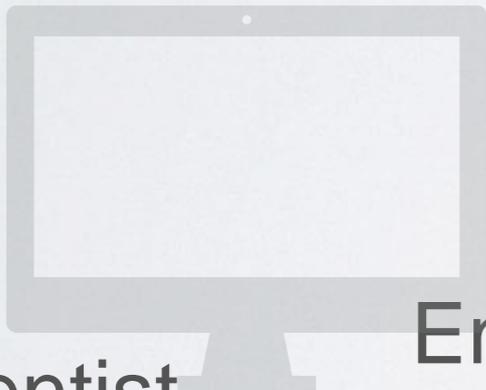
Dietician

Vet Epidemiologist

Public Health Inspector

Researcher

Medical Microbiologist



Environmental Health Worker



Dentist

Data Scientist

Statistician



Physician

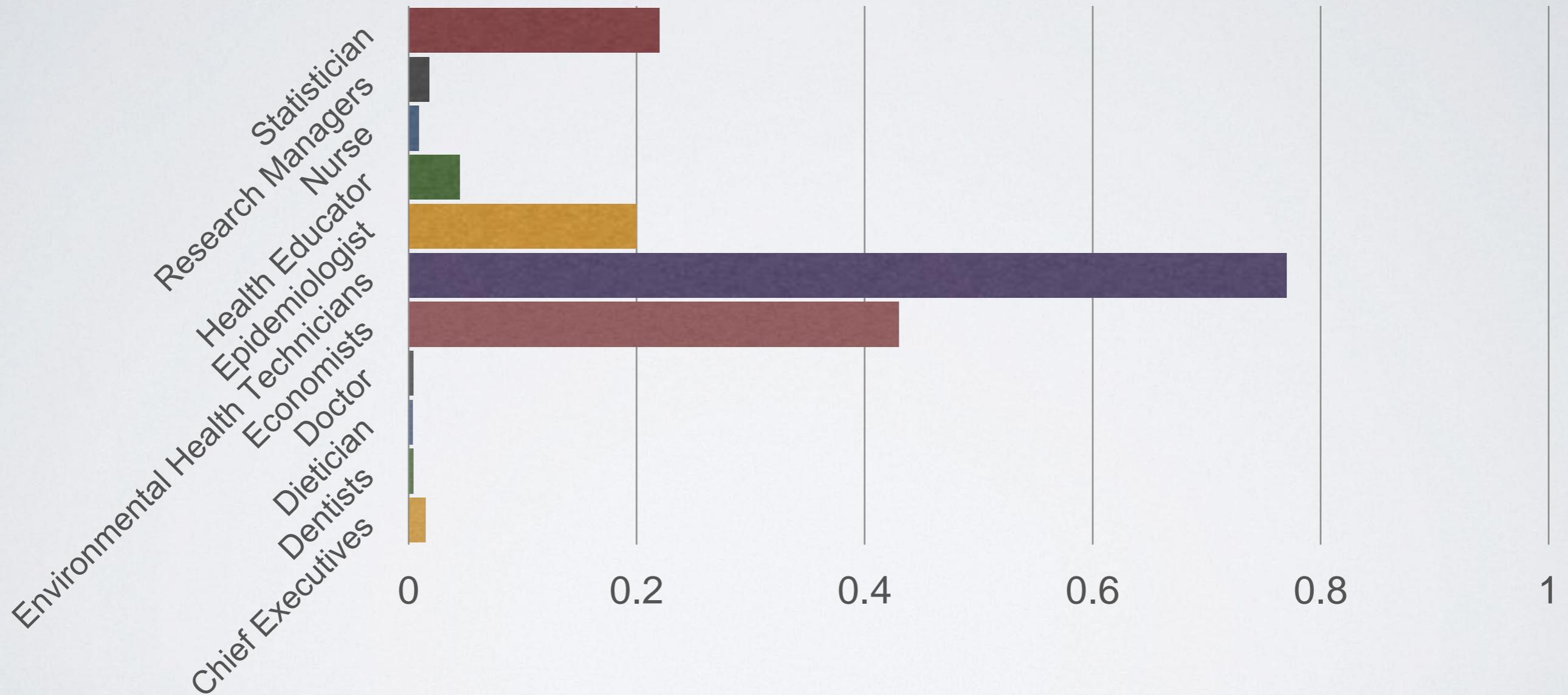




PUBLIC HEALTH JOBS



Probability of Automation (-> increasing)

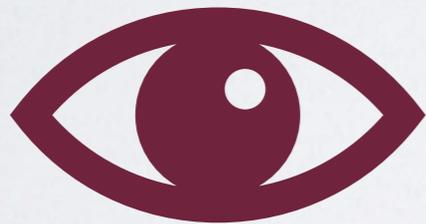


Ref: <https://willrobotstakemyjob.com/>





AUTOMATION PROTECTIVE FACTORS



Perception &
Manipulation



Creative
Intelligence

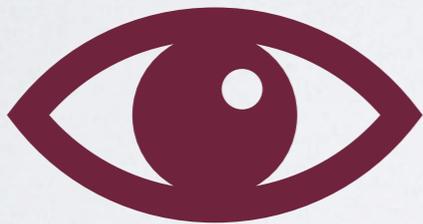


Social
Intelligence

Ref: Frey & Osborne Model of Automation

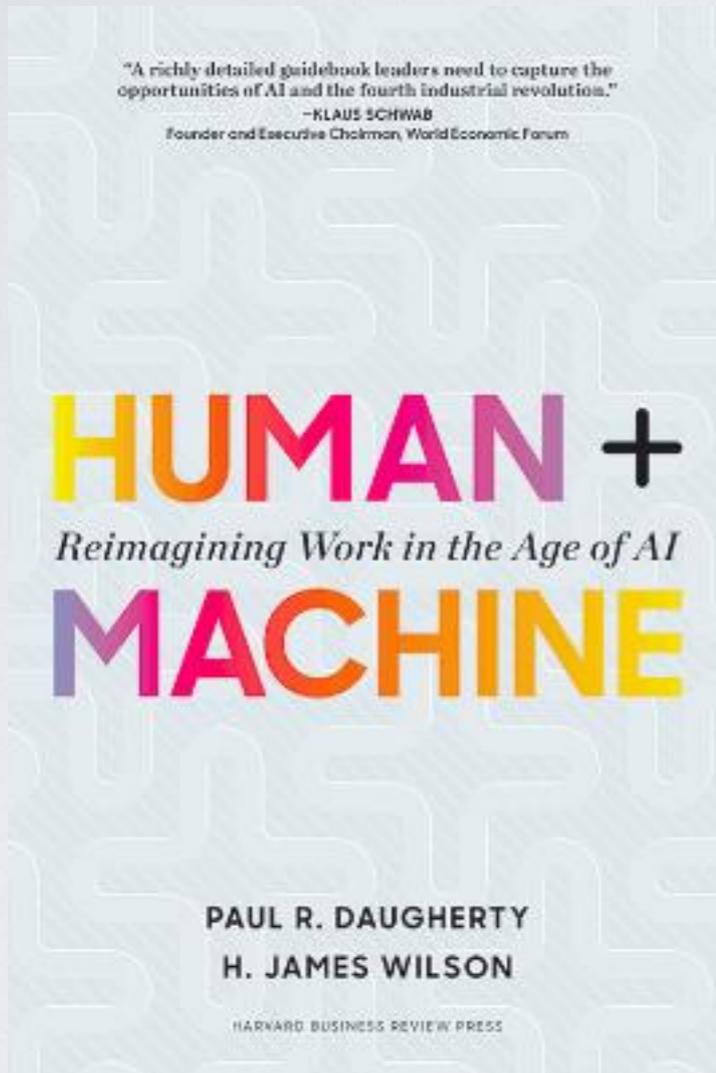


Creative Work!

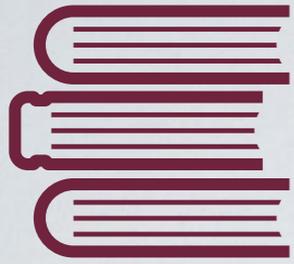


Social interactions for service sector...





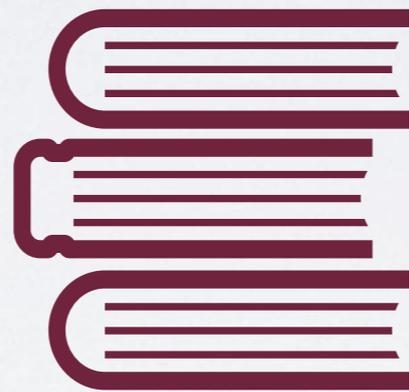
“People are good at emotive capability, communication, improvisation, generalization...
Machines are good at memorization, transactions, prediction...
what happens when you combine those two, what’s that middle ground of collaboration?”
–Paul R. Daugherty and H. James Wilson



Research



AI-Powered
Literature
Search



AI Critical
Appraisal/
Systematic
Reviews



Big Data/
ML Analysis



Let me browse by research paper

<https://ieeexplore.ieee.org/document/6163563/>

AI tailored suggestions for you

PAPERS TED TALKS

Williamson ether synthesis: an efficient one-step route ...

John C. Anyanwu

FDI in the Middle Eastern and North African Countries

Configurations of actual and perceived motor competence ...



Hi, I'm Woebot.

I'm here for you, 24/7. No couches, no meds, no childhood stuff. Just strategies to improve your mood. Plus the occasional dorky joke. 😊



SOCIAL CAPITAL



SOCIAL
CAPITAL

TECHNOLOGICAL
SINGULARITY



TECHNOLOGICAL
ADVANCEMENT





INEQUITY





-VES

- Job loss
- Lack of control/
algorithm
insight
- 'Evil'

+VES

- Manage big data
- New methods
- Mobilize human
resources for
new purposes

Public Health





#PHSP18 & #CPHATEC H

Hey Siri, what do we do about artificial intelligence?

