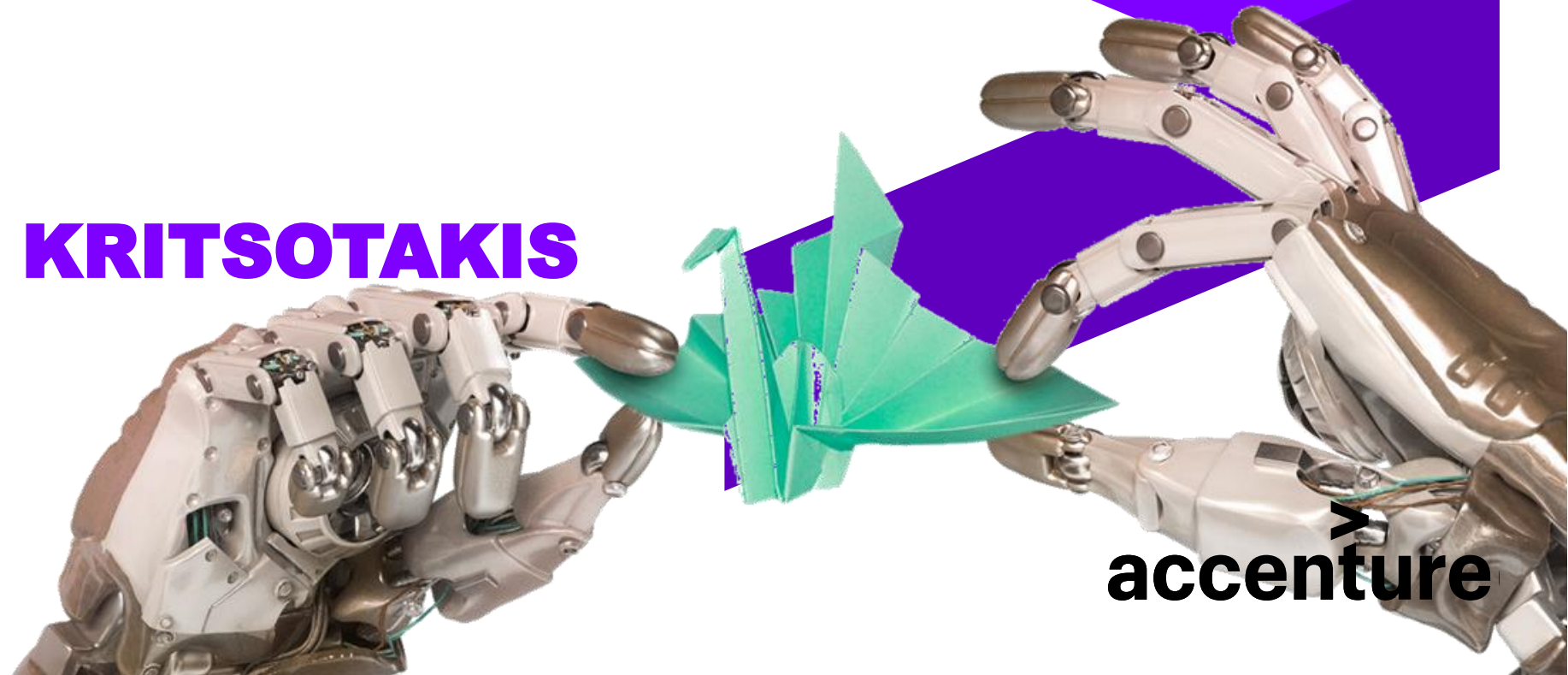


HUMAN & MACHINE

REIMAGINING WORK IN THE DIGITAL AGE

DR JIORGIS I. KRITSOTAKIS

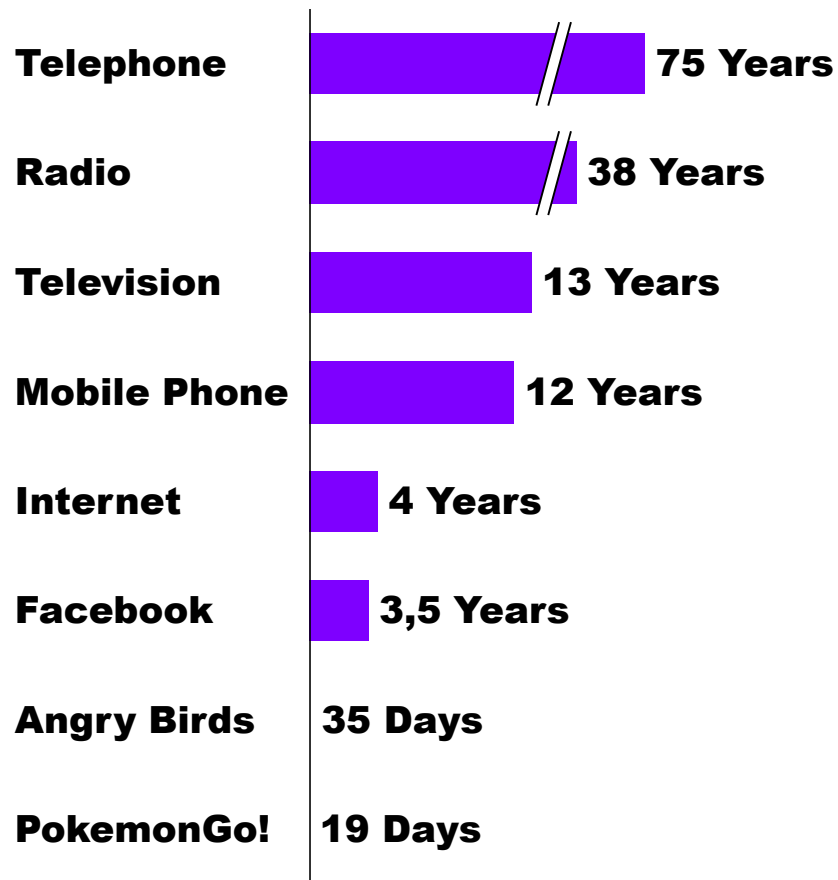
**Aspropyrgos,
May 16, 2018**



accenture

DIGITAL DISRUPTS INDUSTRIES AS WE KNOW THEM

TIME TO REACH 50 MILLION USERS



INDUSTRIES' DISRUPTION

UBER	Taxis	World's largest taxi company
	Real Estate	World's largest accommodation provider
	Telco Infra	World's largest phone companies
  	Inventory/Grocery	World's most valuable retailers
	Content	Most popular media owner
	Actual Inventory	World's fastest growing bank
NETFLIX	Cinemas	World's largest movie house
	Apps	World's largest software vendor
IMPOSSIBLE	Food	World's first commercial artificial burger



151

**OF THE FORTUNE 500
FROM 2010 ARE
NO LONGER LISTED**

IN EFFECT, THE DIGITAL REVOLUTION HAS A PROFOUND IMPACT ON THE CURRENT WORKING ENVIRONMENT



Digital generation entering the workforce



Digitisation of just about everything



Rise of real-time analytics



Developments in scientific research on human behaviours



Exponential growth in computing power



Explosion of connected devices



The rise of start-ups disrupting traditional industries



Combinatorial innovation

WE SEE DIGITAL DISRUPTING ALL ASPECTS OF WORK AND WORKFORCE AS WE KNOW IT TODAY



HOW WORK IS ORGANIZED

Digital breaks us free from traditional, rigidly defined jobs and the organization of work



By 2025, **45%** of workers will be contractors



Talent marketplaces already host **over 10 million** freelance workers in **180 countries**

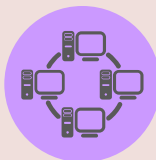


WHAT WORK IS PERFORMED

Digital enriches and radically augments work



47% of jobs could be automated in the **next 15 years**



Technology has made us **five times more productive** since 1972

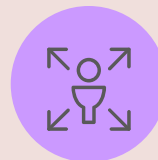


WHO PERFORMS THE WORK

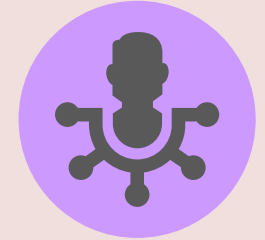
Digital democratizes the workforce



40% of the workforce will be millennials by 2020 – and they could be working with their great-grandfathers



Digital natives will have **20 different jobs** and **5 different careers** in their lifetime



HOW WORK IS LED AND MANAGED

Digital leaders orchestrate networks, encourage experimentation, and integrate diverse talent



92% of executives said the challenges they face now are more complex than 5 years ago



The average number of direct reports for CEOs has **doubled** in the last two decades

“MACHINE” ACTIVITY IS USUALLY PERCEIVED AS A REPLACEMENT OF HUMAN ACTIVITY



MACHINE ACTIVITY

VS

HUMAN ACTIVITY

ROUTINE

TRANSACTIONAL

CREATIVE

LEADERSHIP SKILLS

PREDICTIVE

MECHANISTIC

IMPROVISATION

AGILE, NON-ROUTINE

ITERATIVE, REPETITIVE

SOCIAL, PERSONAL

“HOW WE CAN EMBRACE THE REPLACEMENT OF JOBS BY AI”

FORBES.COM

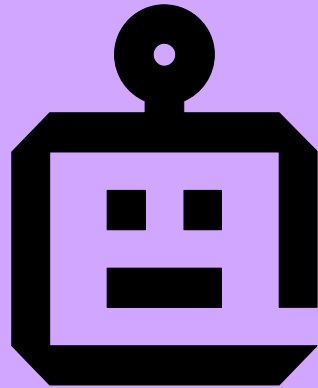
“WHY AI COULD DESTROY MORE JOBS THAN IT CREATES”

TECHREPUBLIC.COM

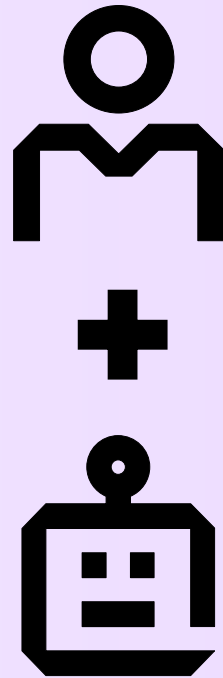
“ROBOTS WILL DESTROY OUR JOBS – AND WE’RE NOT READY FOR IT”

THE GUARDIAN.COM

HOWEVER, WE BELIEVE THAT HUMANS AND MACHINES CAN SEAMLESSLY COLLABORATE IN THE “MISSING MIDDLE”



**MACHINE
-ONLY
ACTIVITY**



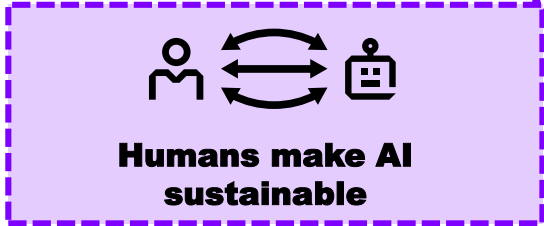
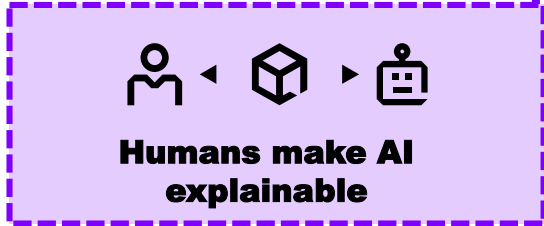
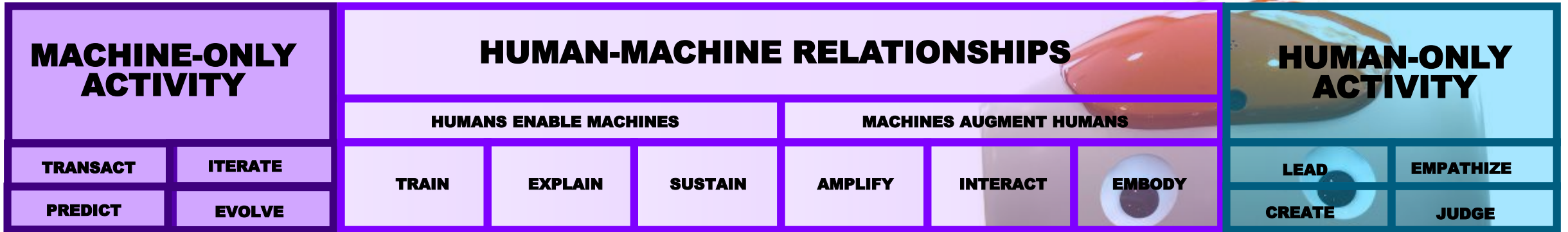
**HUMAN-MACHINE
RELATIONSHIPS**



**HUMAN
-ONLY
ACTIVITY**

Source: “Human + Machine: Reimagining Work in the Age of AI”, by Paul R. Daugherty & H. James Wilson

IN THE “MISSING MIDDLE” HUMANS CAN ENABLE MACHINES...



Task training: data hygienist, interaction modeler
Human-ness training: empathy trainer, personality trainer, worldview and localization trainer



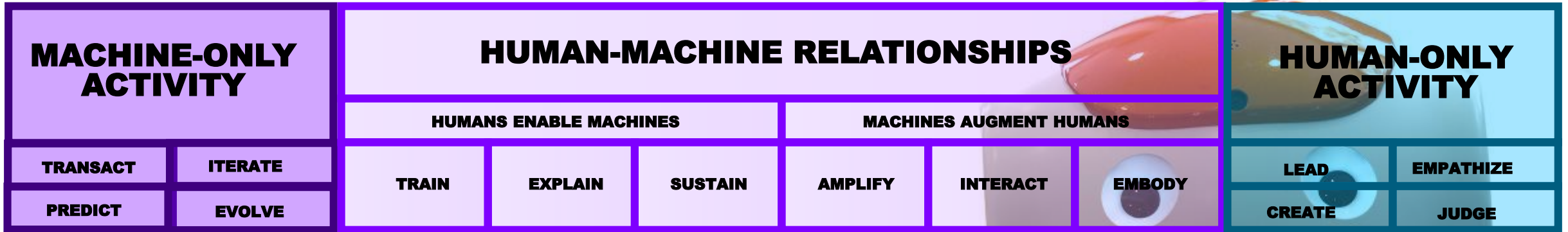
Algorithms: algorithm forensics analyst
Output: transparency analyst, explainability strategist



Limits setting: context designers, AI safety engineers
Oversight: ethics compliance managers, automation ethicists, machine relations managers

Source: “Human + Machine: Reimagining Work in the Age of AI”, by Paul R. Daugherty & H. James Wilson

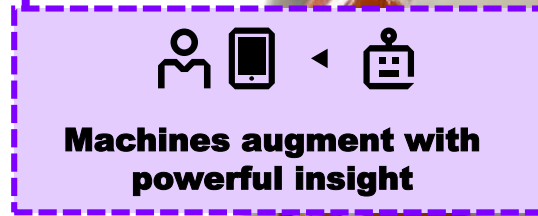
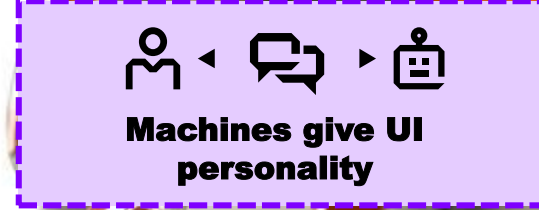
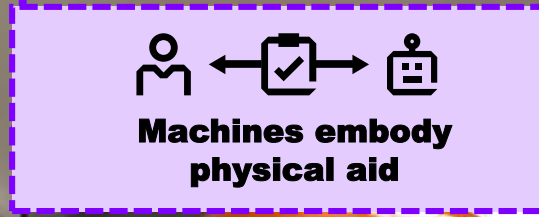
... WHILST MACHINES CAN HELP “AUGMENT” HUMANS



Delivering via drones, remote mining, manufacturing customized automobiles

Guiding customers through a process, humanoid robots answering questions

Selecting the right tools for diagnoses, designing furniture, maintaining industrial equipment



Source: “Human + Machine: Reimagining Work in the Age of AI”, by Paul R. Daugherty & H. James Wilson

Copyright © 2018 Accenture. All rights reserved.

IN THIS CONTEXT, NEW SKILLS ARE IN DEMAND AND NEW JOBS ARE NOW BEING INVENTED

THE NEXT HORIZON SKILLS

2015

Complex Problem Solving

Coordinating with Others

People Management

Critical Thinking

Negotiation

Quality Control

Service Orientation

Judgement & Decision Making

Active Listening

Creativity

2020

Complex Problem Solving

Critical Thinking

Creativity

People Management

Coordinating with Others

Emotional Intelligence

Judgement & Decision Making

Service Orientation

Negotiation

Cognitive Flexibility

NEW JOBS LIKELY TO BE CREATED IN THE NEXT YEARS



Chief Experience Officer



Augmented Reality Architect



Telesurgeon



Digital Archeologist
(digging up old data)



Drone Driver



Personal Bot Mechanic



Digital Reputation Consultant



Narrowcaster
(will make extensive use of artificial intelligence tools, web crawlers and customized alerts to program personalized content)

ORGANIZATIONS OF-AND-FOR THE FUTURE ARE NOW BEING BUILT ON THE “M.E.L.D.S” PRINCIPLE



MINDSET

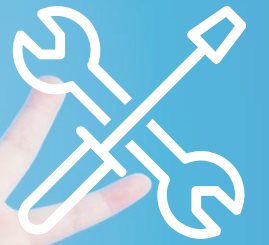


EXPERIMENTATION

LEADERSHIP



DATA



SKILLS

Source: “Human + Machine: Reimagining Work in the Age of AI”, by Paul R. Daugherty & H. James Wilson

Copyright © 2018 Accenture. All rights reserved.

THANK YOU!