

Human-AI Collaboration in Public Workplaces: Prospects and Challenges



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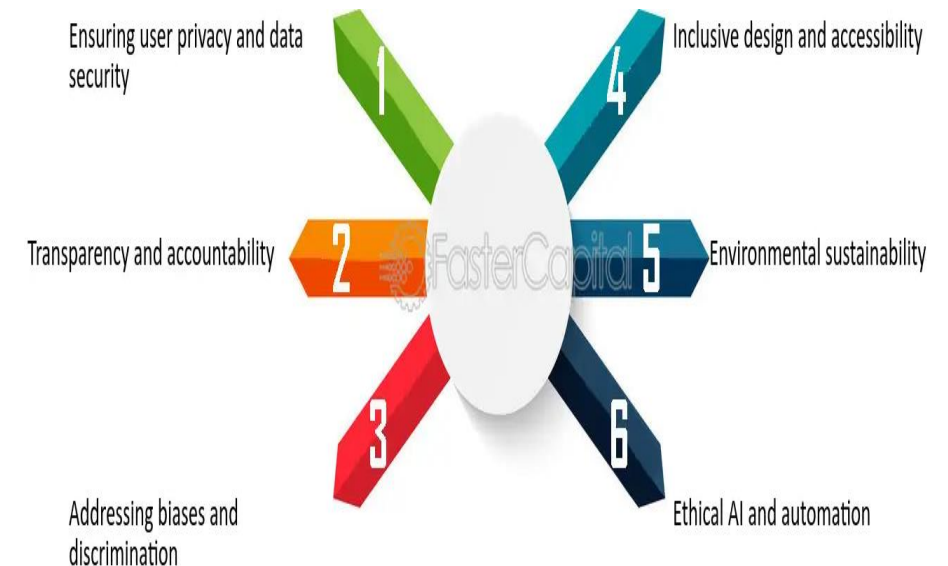
Global HR Forum 2024
October 30 2024

Increasing Interests in AI



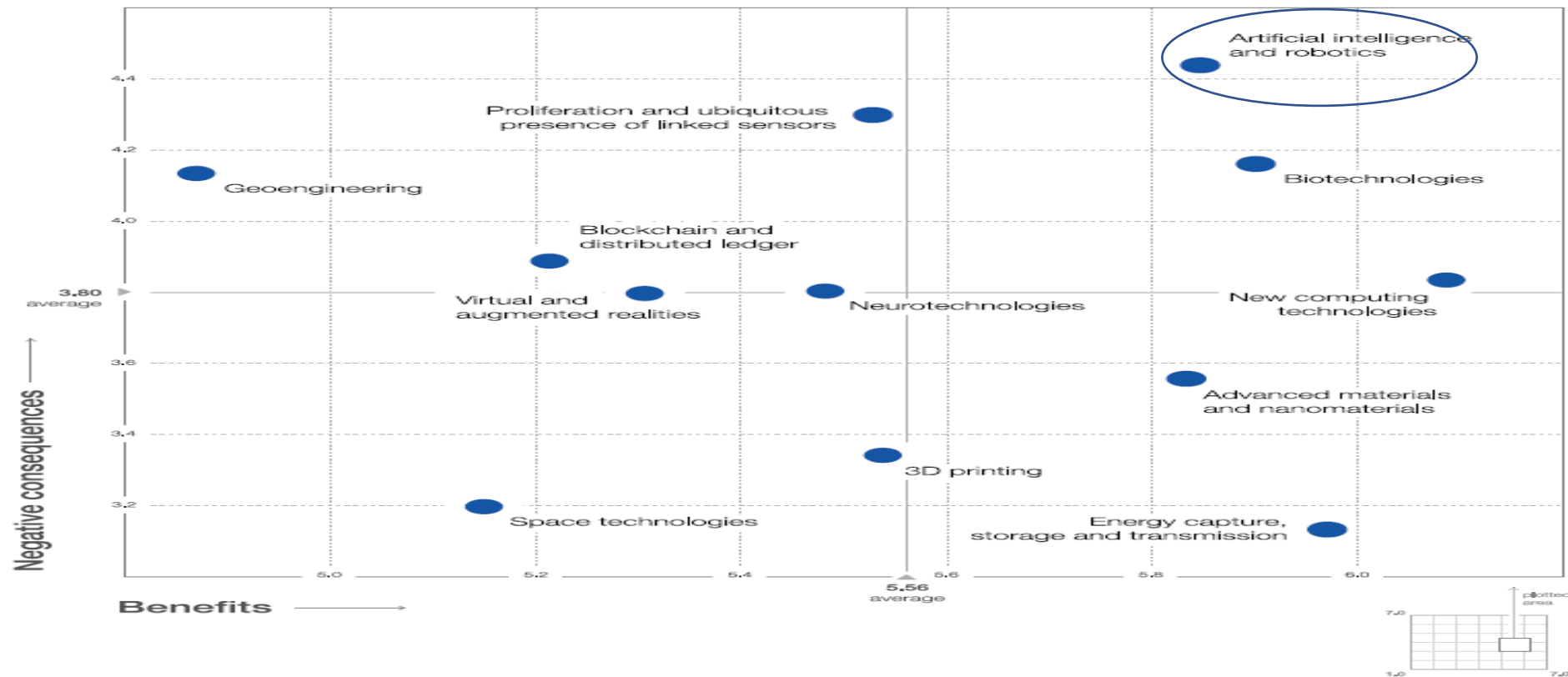
(Moon by Ngram Viewer, 2023)

Human-AI Collaboration: Prospects and Challenges





Perceived Benefits and Negative Consequences of Different Technologies



Source: World Economic Forum Global Risks Perception Survey 2016

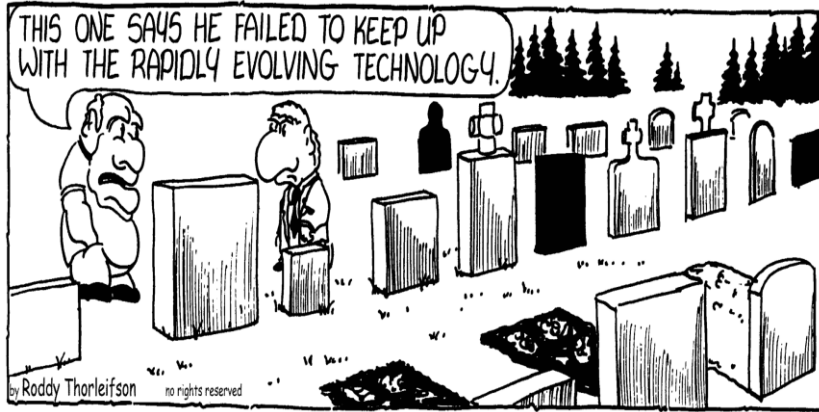
Where Are We?



What to Do?



Technology, Human, and HR Cycle



AI for HRM and HRD

- AI for Recruitment
- AI for Selection
- AI for Job Analysis
- AI for Job Assignment
- AI for Training and Development
- AI for Performance Evaluation

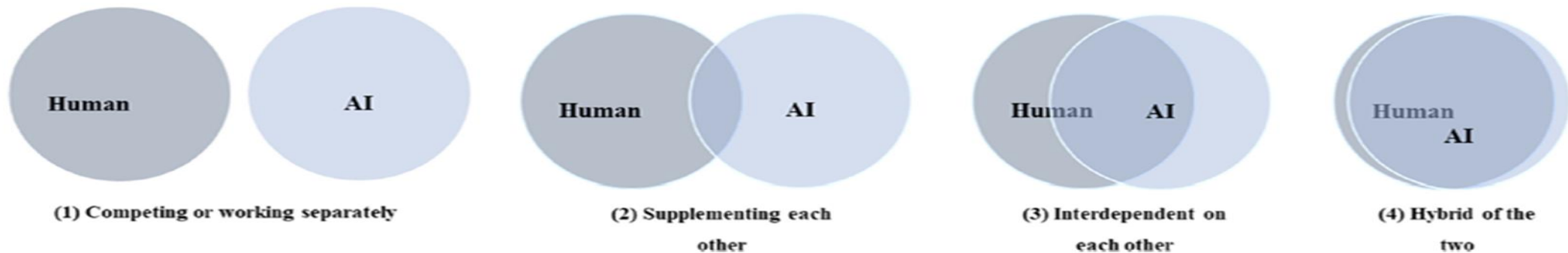
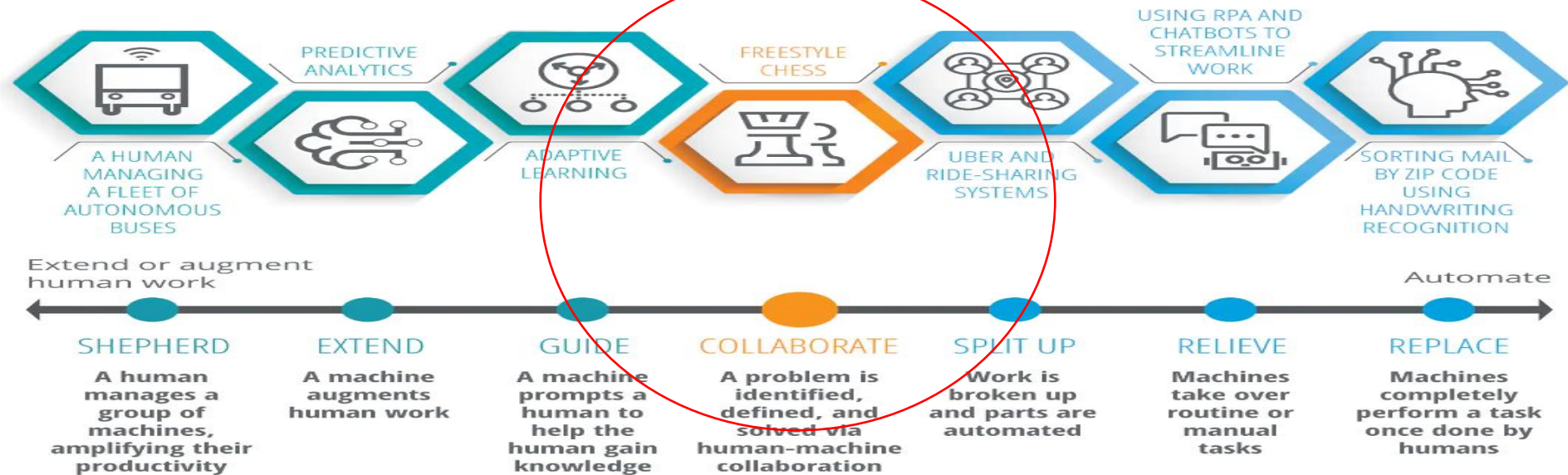


visier

<https://www.visier.com/ai/ai-in-hr/>

Human-AI Collaboration

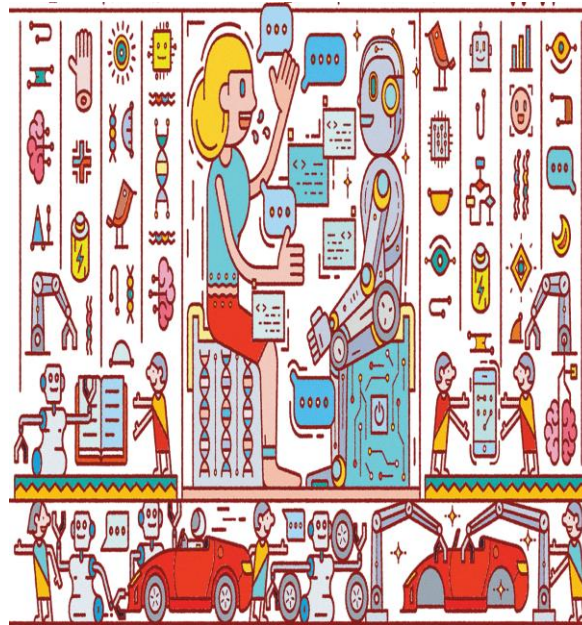
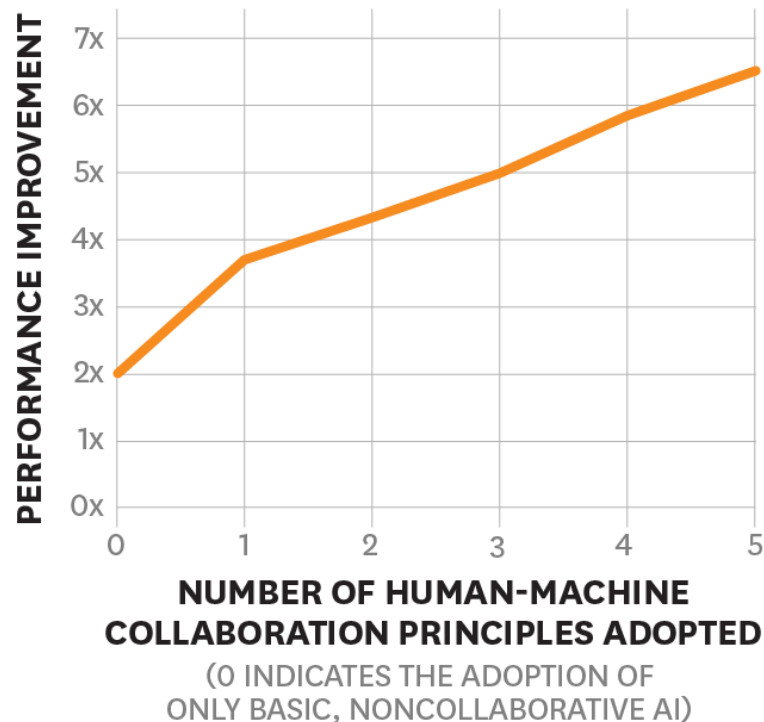
Scenarios for human-machine pairing



Source: Sowa et al., 2021 p. 136.

Human-AI Collaboration

- Collaborative Intelligence (Wilson and Daugherty, 2018)



- Human-AI Collaboration and Performance
 - Human-AI Collaboration is a must not an optional
 - Wilson & Daugherty (2018)
 - : Adoption of Human-AI Collaboration Principles will lead to Performance Improvement
 - :
 - Wang & Siau (2019)
 - : Misdiagnosis Rate
- Doctor only: 3.5% vs. AI only: 7.5% vs. Doctor-AI Collaboration: 0.5%

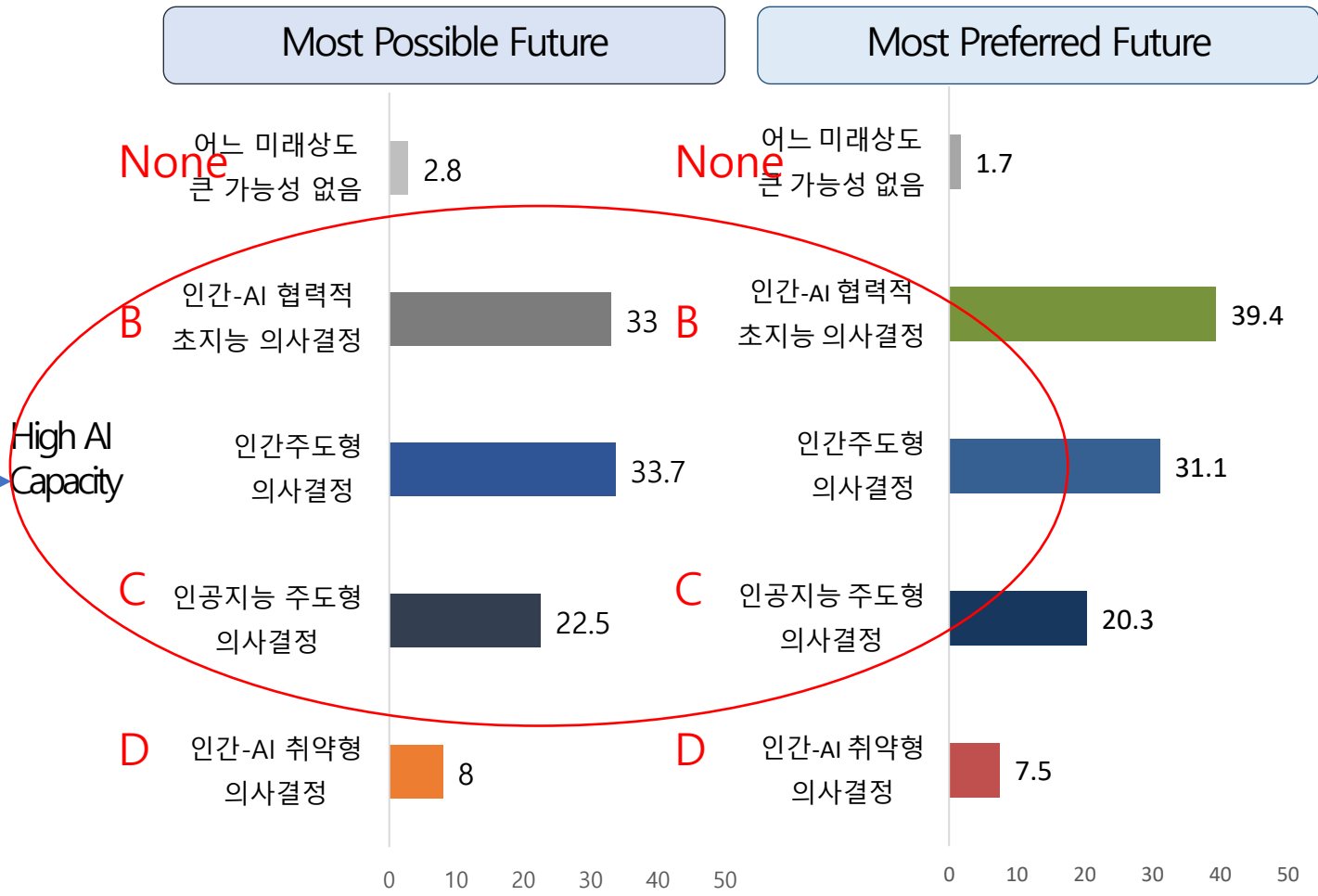
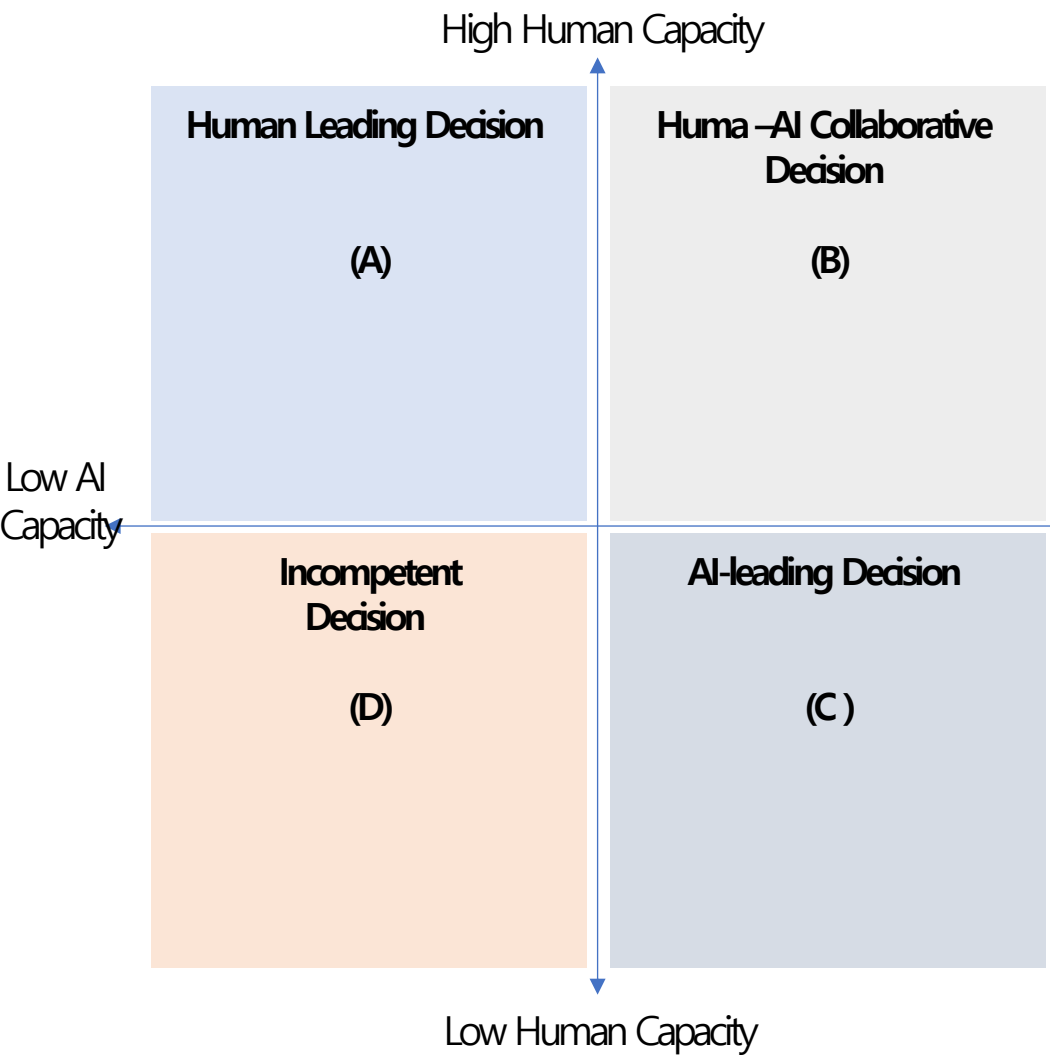
Trust in Human and AI Decisions in Different Scenarios

Scenarios	Subjects	Trust in AI Decision	Trust in Human Decision	No Trust in Both
Scenario 1 Pandemic	Citizens	30.8	45.9	23.3
	Public Servants	35.0	52.7	12.3
Scenario 2 Judiciary Sentencing	Citizens	36.9	41.6	21.5
	Public Servants	41.3	48.7	10.0
Scenario 3 Response to Climate Change	Citizens	46.3	33.4	20.3
	Public Servants	52.2	39.3	8.5

Source: Moon et al. (2024)

Survey Results by Institute for Future Gov't (Moon, 2022)

Human-AI Types



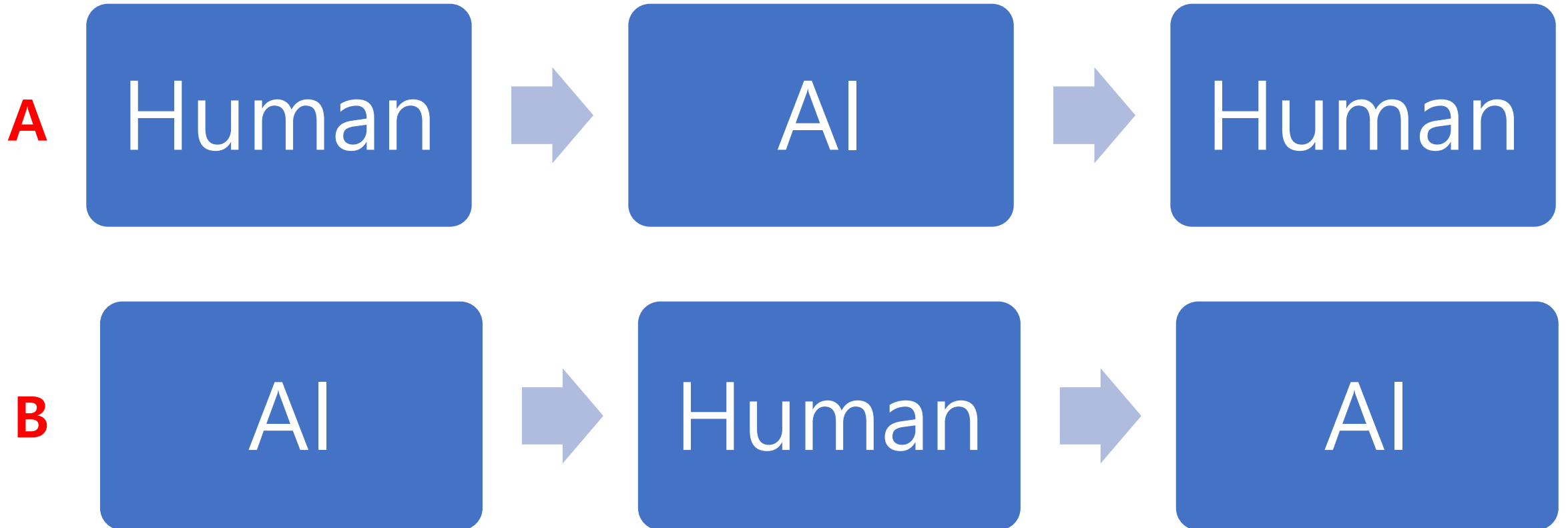
Blame or Praise to AI or Human?

Vignette-based Experiments

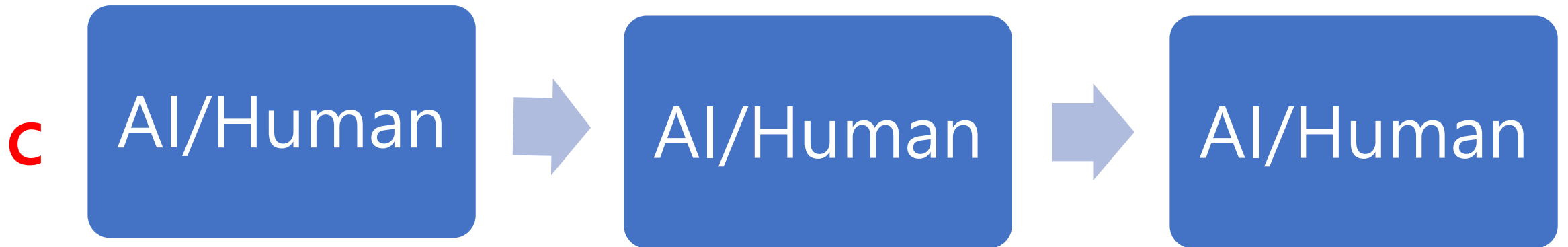
	AI Only (Right)	AI Only (Wrong)	AI-Human Collaboration (Right)		AI-Human Collaboration (Wrong)	
			Robot	Human	Robot	Human
Smoking Violation	4.98	3.55	4.87	4.95	3.52	3.57
Medicine Scheduling	4.77	3.40	4.85	4.84	3.50	3.58
Visa Processing	4.81	3.24	4.75	4.74	3.20	3.30
Pandemic Policymaking	4.84	3.53	4.80	4.65	3.70	3.33

(Moon, 2023)

How to Work Together?



Reiteration of Human-AI Interaction



HAI CQ?

Human-AI Collaborative Intelligence

AI Risk and Ethical Issue

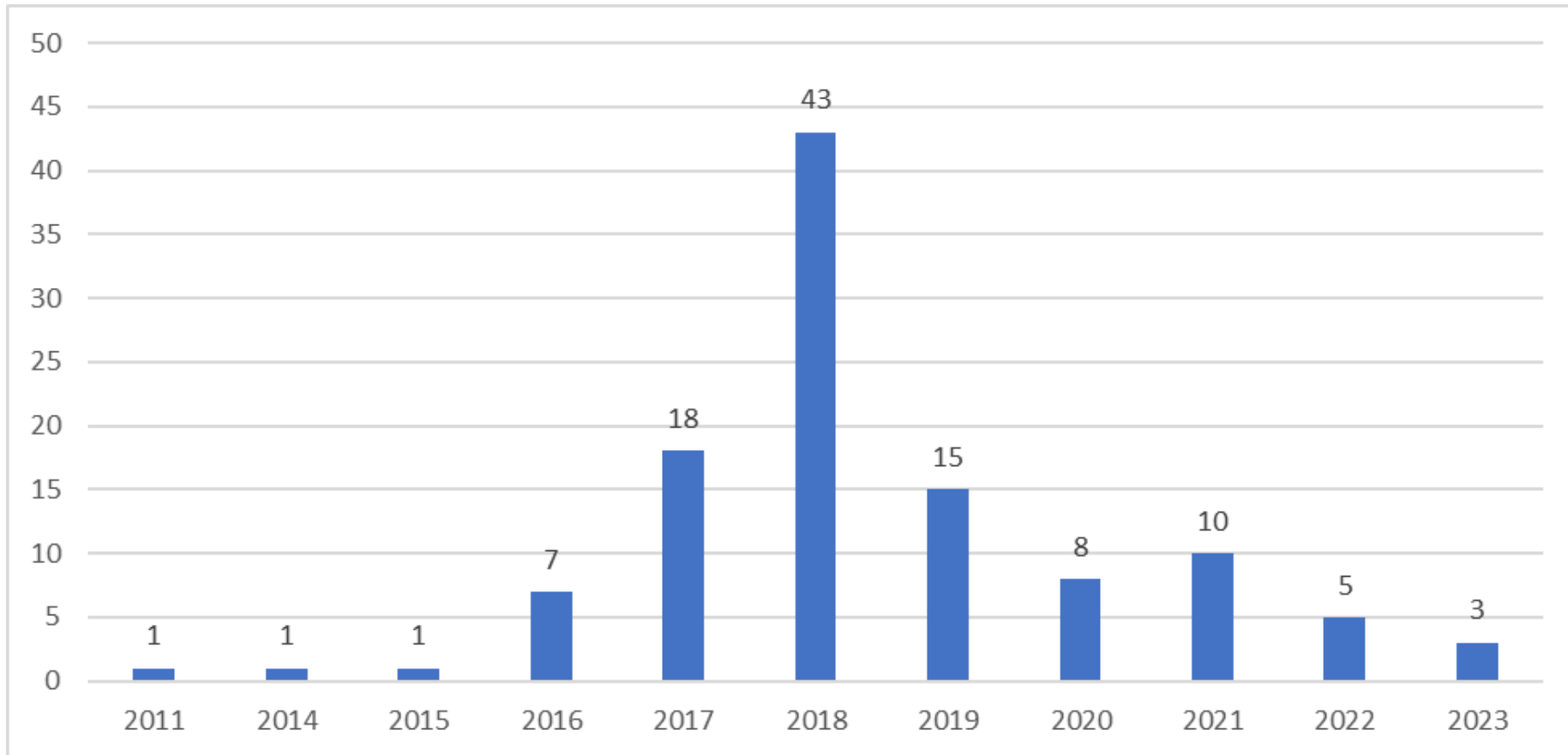


Two Approaches: Ethical Approach and Legal Approach

	Ethical Approach (Moralizing)	Legal Approach (Regulating)
Mechanism	Ethical standards	Regulatory laws
Actor(s)	Various stakeholders	Government(s)
Nature	Voluntary	Mandatory
Consequences	Moral Blaming	Punishment or Penalty

(Moon, 2023)

AI Ethical Guidelines by Year (116)



From Moralization of AI to Regulation


EU 'in touching distance' of world's first laws regulating artificial intelligence

Dragoș Tudorache, MEP who has spent four years drafting AI legislation, is optimistic final text can be agreed by Wednesday



Biden Issues Executive Order to Create A.I. Safeguards

The sweeping order is a first step as the Biden administration seeks to put guardrails on a global technology that offers great promise but also carries significant dangers.

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Inclusive AI Governance for Social Good

PUBLIC ADMINISTRATION REVIEW



VIEWPOINT

Searching for inclusive artificial intelligence for social good: Participatory governance and policy recommendations for making AI more inclusive and benign for society

M. Jae Moon 

First published: 24 April 2023 | <https://doi.org/10.1111/puar.13648> | Citations: 3

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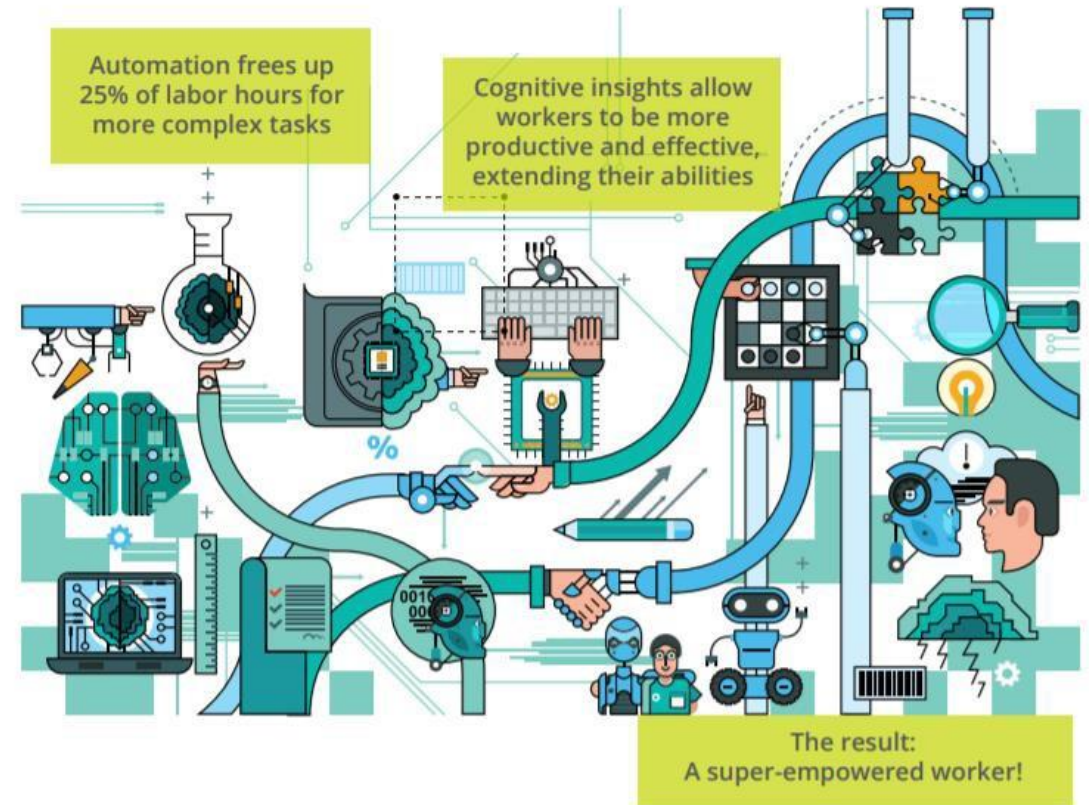
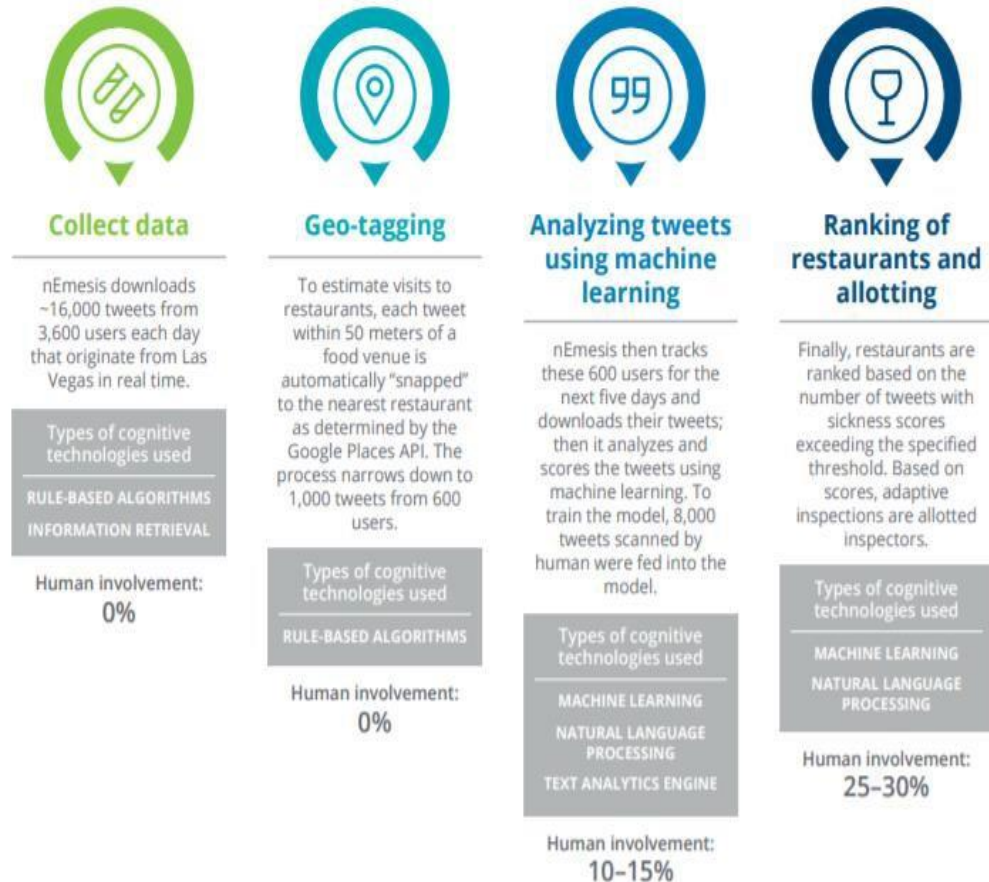
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Abstract

While artificial intelligence (AI) has begun to transform individual lives, business operations, and public services, there has been a lack of discussion concerning its role in contributing to social good. Both academic research and practical evidence have often compellingly predicted and suggested AI's potential impact on the labor market, industry, and services, as well as the risks and benefits of disruptive technologies. With an emphasis on understanding the complex and uncertain nature of AI as well as the disparities in its benefits, in this article, the logic of participatory governance is examined, and it is posited that this governance is an appropriate governing mechanism for an inclusive AI that contributes to social good. This study also offers a set of policy recommendations by reviewing selected cases and the challenges that policy-makers face at the national and global levels.

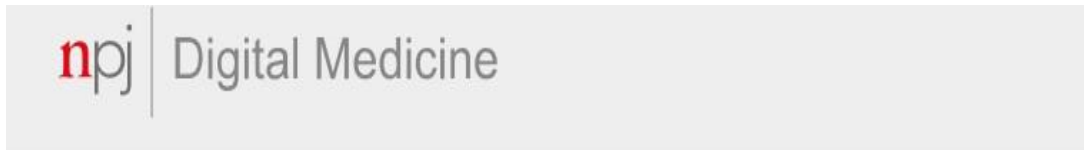
(Moon, 2023)

AI-augmented Government (Eggers and Macmillan, 2017)



FOOD SAFETY INSPECTION

- Digital Health Epidemiology



Article | [OPEN](#) | Published: 06 November 2018

Machine-learned epidemiology: real-time detection of foodborne illness at scale

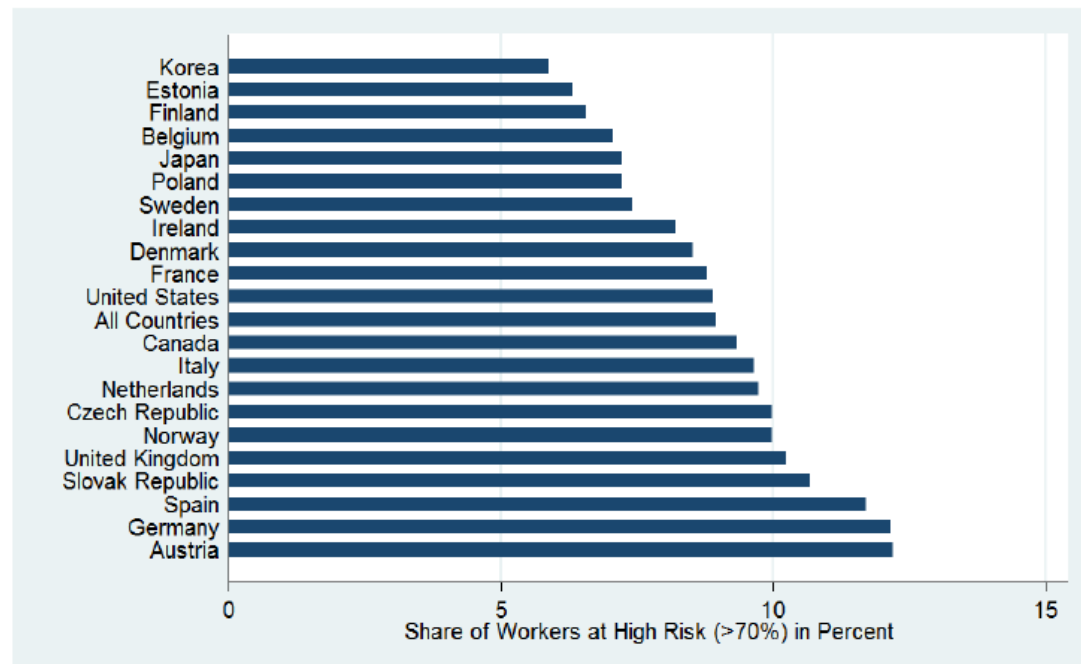
Adam Sadilek, Stephanie Caty, Lauren DiPrete, Raed Mansour, Tom Schenk Jr, Mark Bergtholdt, Ashish Jha [✉](#), Prem Ramaswami & Evgeniy Gabrilovich

npj Digital Medicine **1**, Article number: 36 (2018) | [Download Citation](#) [↓](#)

- in Chicago, there were 5,880 inspections during the study, with 71 prompted by FINDER analysis. In Las Vegas, there were 5,038 inspections with 61 prompted by FINDER.
- Baseline Traditional Inspection: 25% Unsafe
- FINDER Flagged Inspection: 50% Unsafe
- About 130 Food Inspectors in Chicago
- About 15,000 Restaurants and Food-related Businesses (470 per inspector)

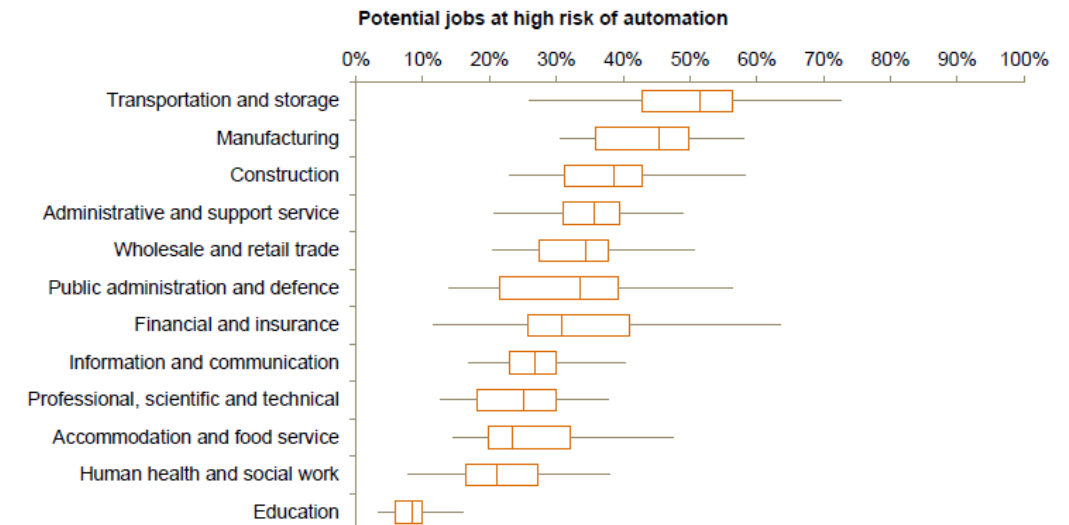
Jobs at High Risk?

Share of Workers with High Automatability



Source: Arntz et al., 2016, p. 16

Share of Jobs at High Risk by Industry



Source: PLAAC data, PwC analysis

Source: Hawksworth & Berriman, 2018, p. 18

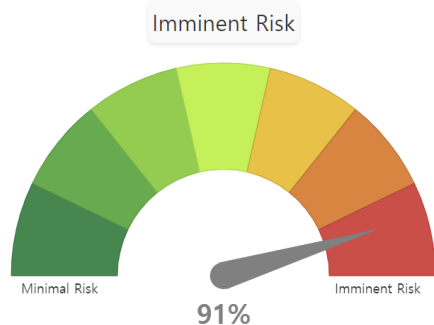
Why Disruptive?

Enter your job

or show random example

<https://willrobotstakemyjob.com>

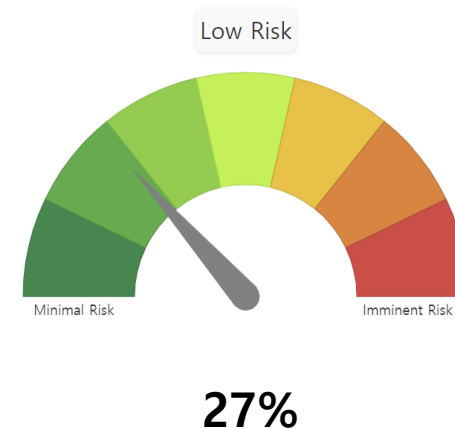
Bookkeeping, Accounting, and Auditing Clerks



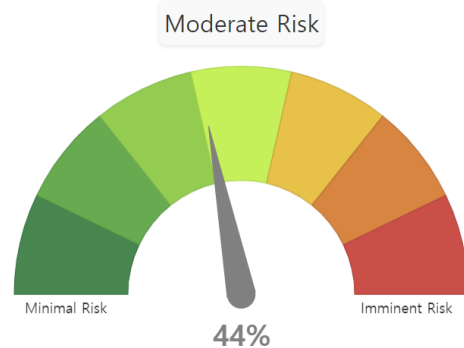
Accountants and Auditors



Human Resources Managers



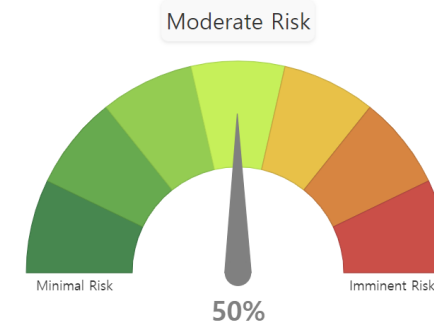
Administrative Services Managers



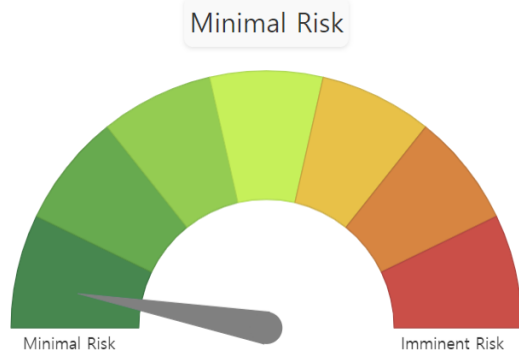
Social and Human Service Assistants



First-Line Supervisors of Office and Administrative Support Workers

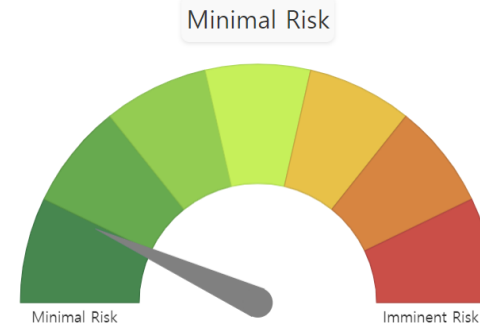


Firefighters



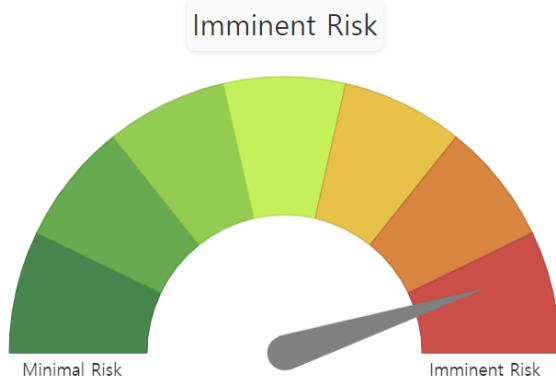
6%

Police and Sheriff's Patrol Officers



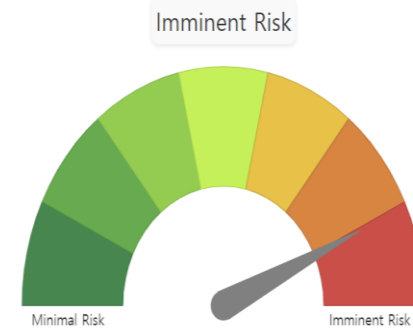
14%

Payroll and Timekeeping Clerks



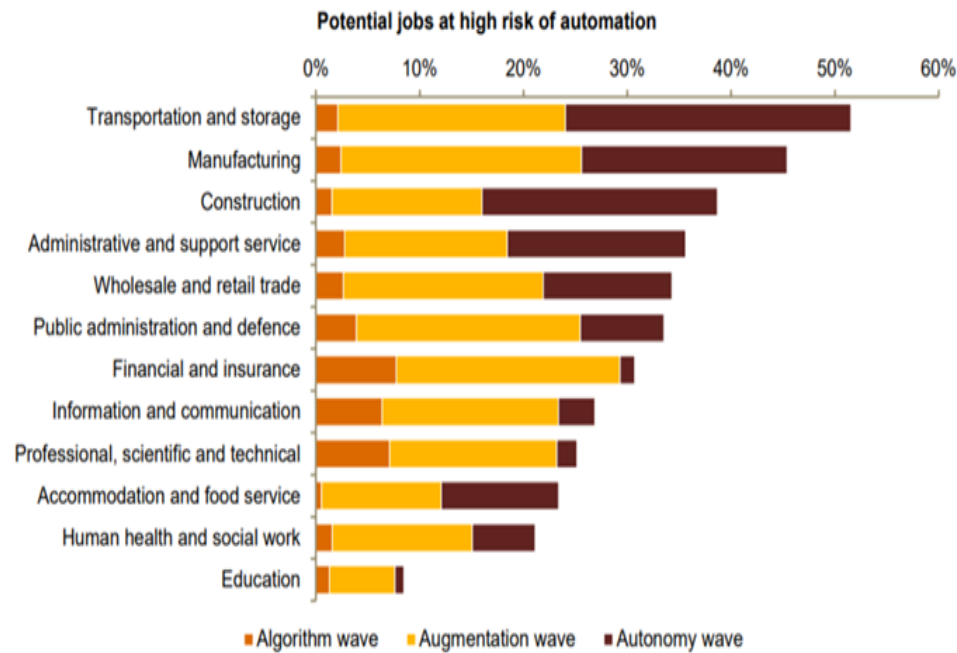
90%

Postal Service Mail Sorters, Processors, and Processing Machine Operators

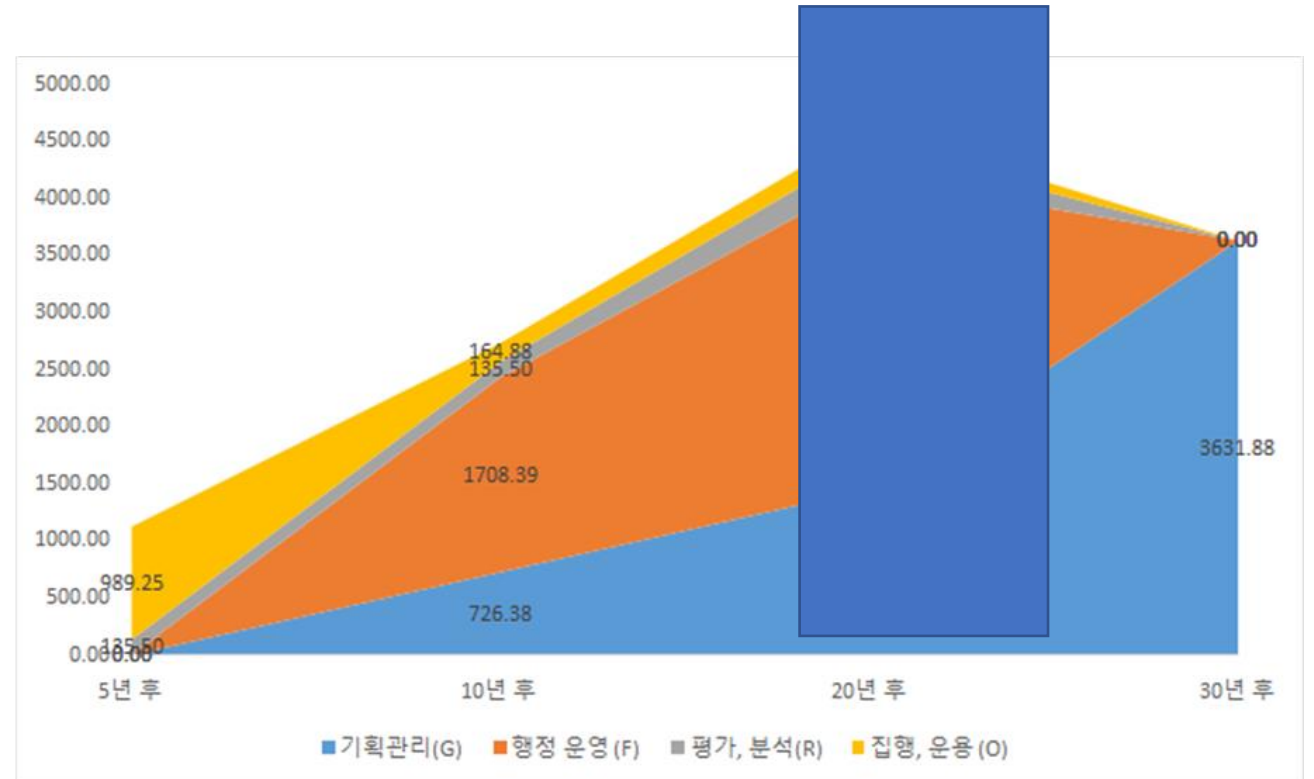


86%

Automation and Changes in Government?



Source: PIAAC data, PwC analysis



Source: Hawksworth & Berriman, 2018

(Moon et al., 2019)

HR in the AI Age: Plan and Balance for Efficiency and Quality of Public Services



Upskilling



Reskilling



"Life is like riding a bicycle. **To keep your balance you must keep moving.**"

Albert Einstein