

# Artificial Intelligence: The Role of Psychology and How to Navigate Change

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American Psychological Association

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December 6, 2023

# Logistics

- No CE but will email certificate of attendance for watching 45 minutes of the live webinar
- Have questions? Use the Q&A feature to type in your questions
- Webinar recording and slides will be emailed afterwards
  
- Format: presentation followed by moderated discussion and audience questions
- Moderator: Karen Stamm, PhD (American Psychological Association)

# Poll Questions

Please take a moment to answer 2 quick poll questions about technology in the workplace.



# Today's Presenter

Mindy Shoss, PhD

Professor

University of Central Florida

# Today's Agenda

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The unique contributions of psychology to the development and implementation of artificial intelligence

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Applications of psychological science to advances in technology

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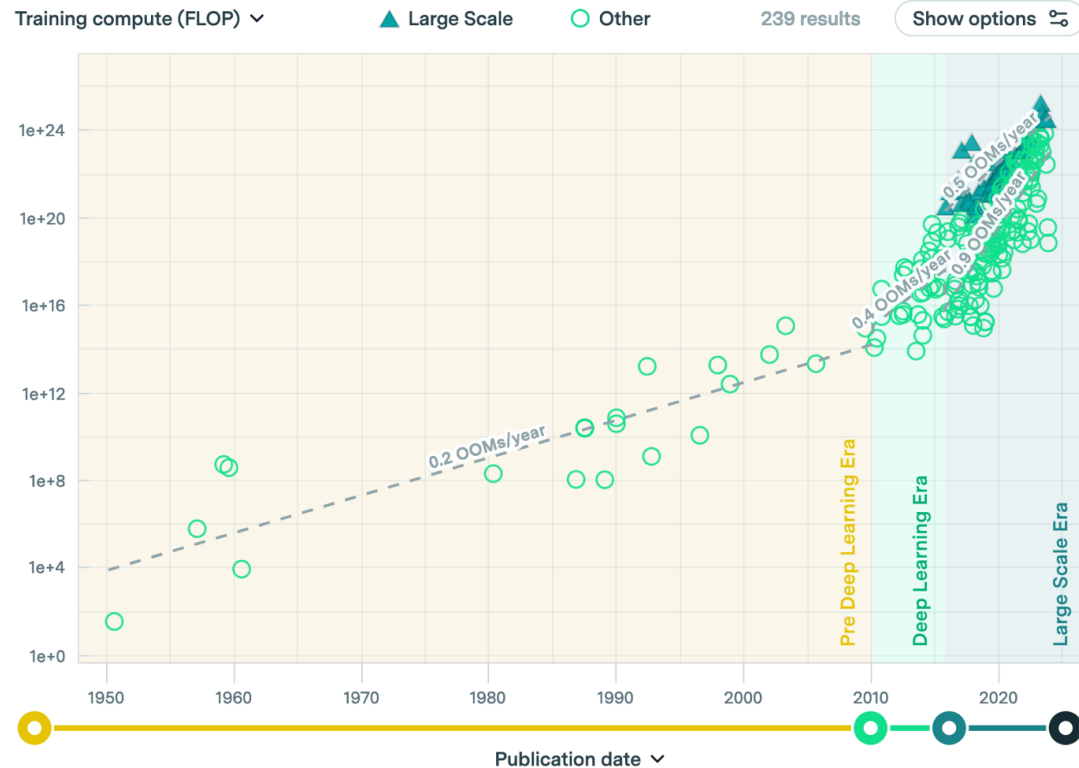
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How psychology can help employees and employers navigate change in the workplace

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# Exponential Growth and Unlimited Possibilities

Training Compute of Notable Machine Learning Systems Over Time



Source: Epoch, 'Parameter, Compute and Data Trends in Machine Learning'.  
Published online at epochai.org. Retrieved from:  
'<https://epochai.org/mlinputs/visualization>' [online resource]

AI will  
exacerbate,  
deepen,  
spread bias

Humans will  
work for  
machines (e.g.,  
algorithmic  
management)

AI will enhance  
opportunities  
for work and  
equity

AI will  
enhance  
workplace  
safety and  
quality of work

# The Case for Psychology

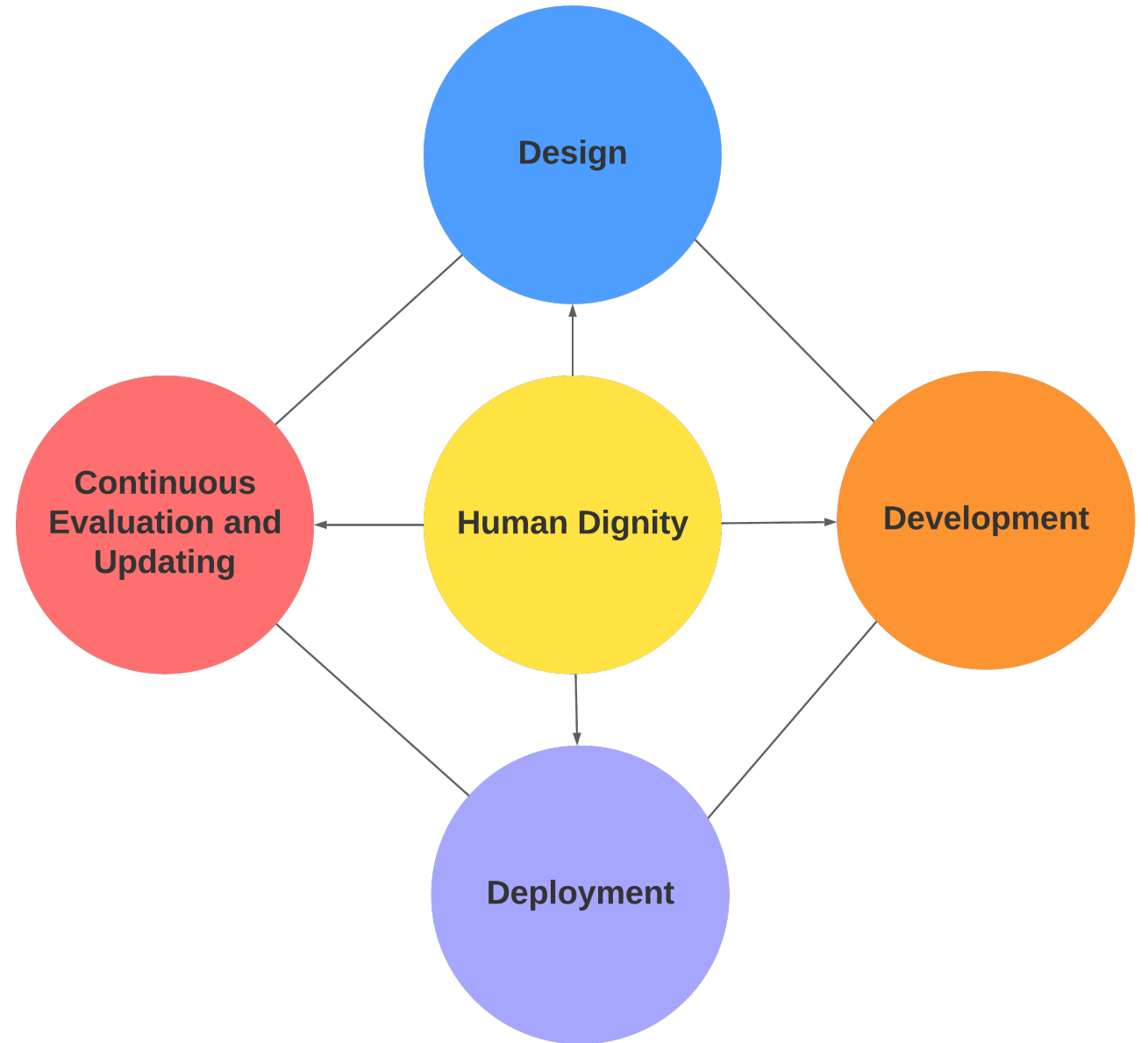


“Human well-being and dignity should be our North Star—with innovation in a supporting role.” - Judy Estrin, *“The Case Against AI Everything, Everywhere, All at Once,”* Time Magazine August 11, 2023

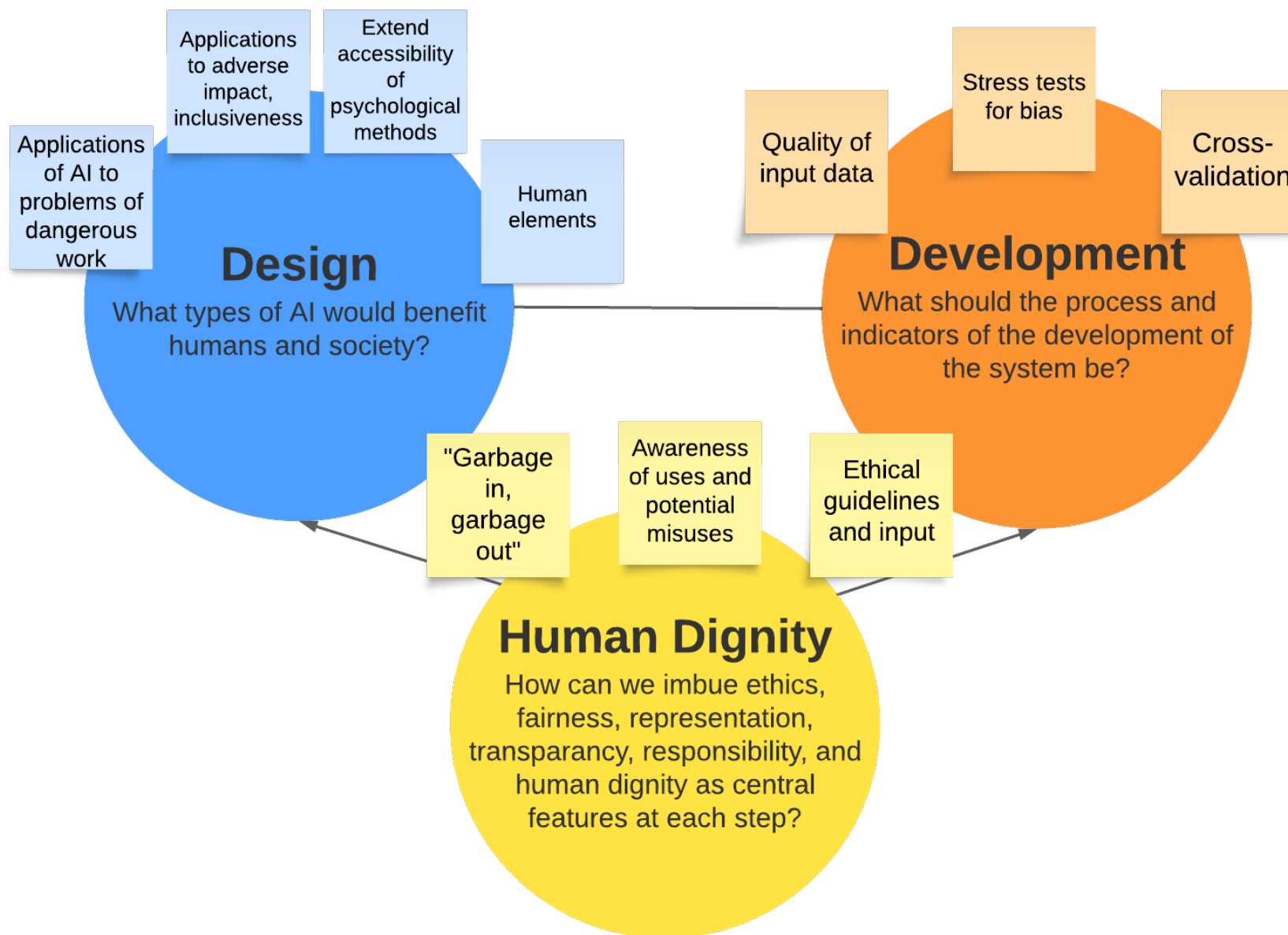


“The conversations [around gen AI] right now make it feel like a technology in search of a problem.” - *Eric Lamarr, McKinsey*

# Human Dignity at the Center of AI Lifecycle

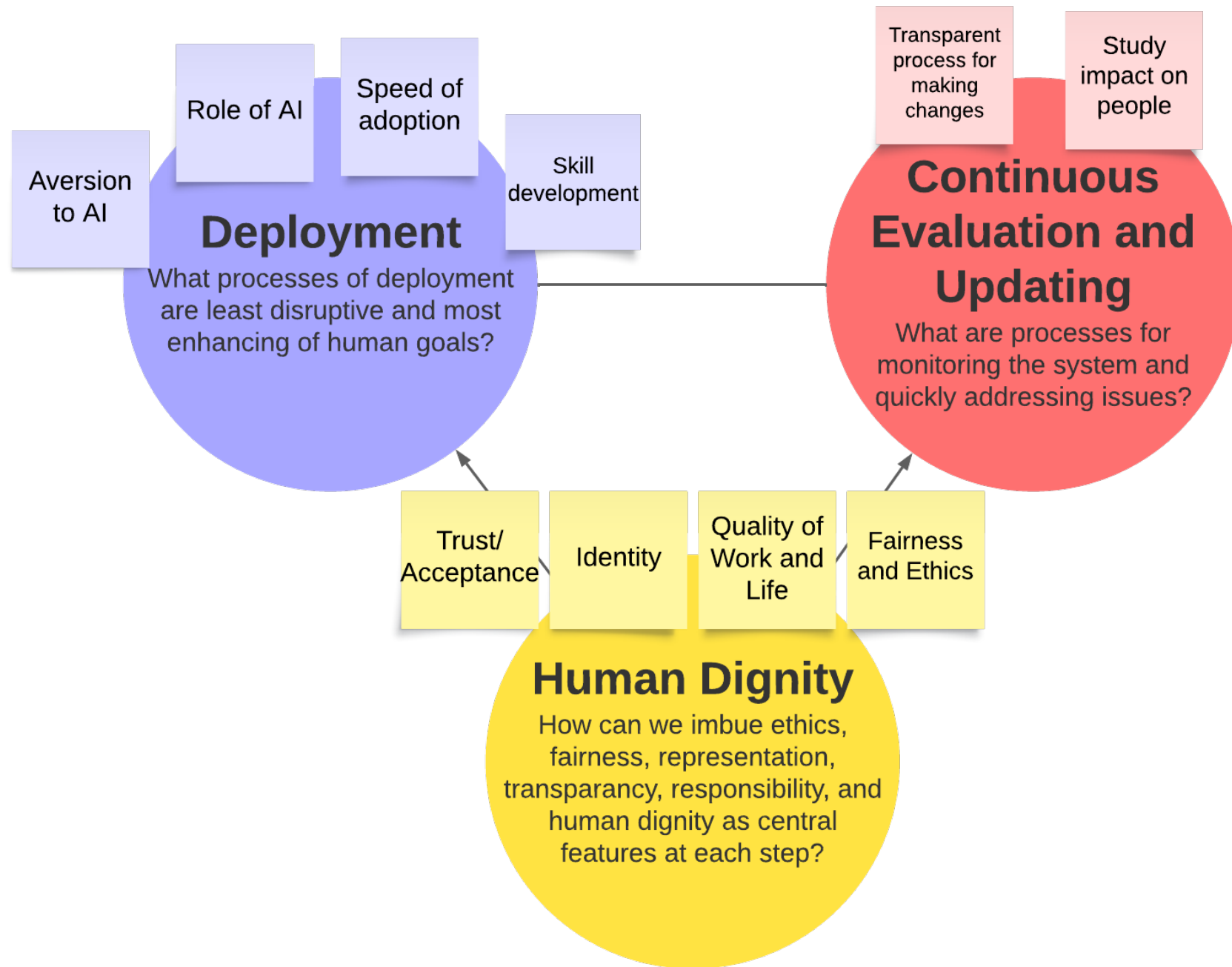






# Examples

- Applications of AI to personnel selection (Campion & Campion, 2023, Special Issue in *Personnel Psychology*)
- Guidelines for AI audits (Landers & Behrend, 2023, *American Psychologist*)
- Best practices in reducing occupational health disparities associated with AI (Fisher et al., 2023; *IJERPH*)
- AI uses to improve workplace safety (Vietas, 2023, *National Safety Council webinar*)



# Examples

- AI functionality and worker reactions (Selenko et al., 2022, *Current Directions in Psychological Science*)
- Algorithmic management and manager evaluations (Schweitzer & De Cremer, 2023, *Academy of Management Discoveries*)
- Complementary functions of AI (Tang et al., 2022, *Academy of Management Journal*)
- Electronic monitoring (Ravid et al., 2023, *Personnel Psychology*)

# AI Anxiety

**38%** worry that AI might make some or all of their job duties obsolete in the future (American Psychological Association)

**37%** more concerned than excited about AI use in daily life (Pew Research)

**79%** do not trust businesses to use AI responsibly (Gallup)

# Reactions to AI are part of a larger context

## PERCENTAGE OF WORKERS REPORTING CERTAIN MENTAL HEALTH CONCERNS BY WORRY ABOUT AI MAKING SOME/ALL JOB DUTIES OBSOLETE



■ Not worried about AI   ■ Worried about AI

Agree that their work has a negative impact on their mental health

29%

51%

Agree employer thinks workplace environment is a lot mentally healthier than it actually is

48%

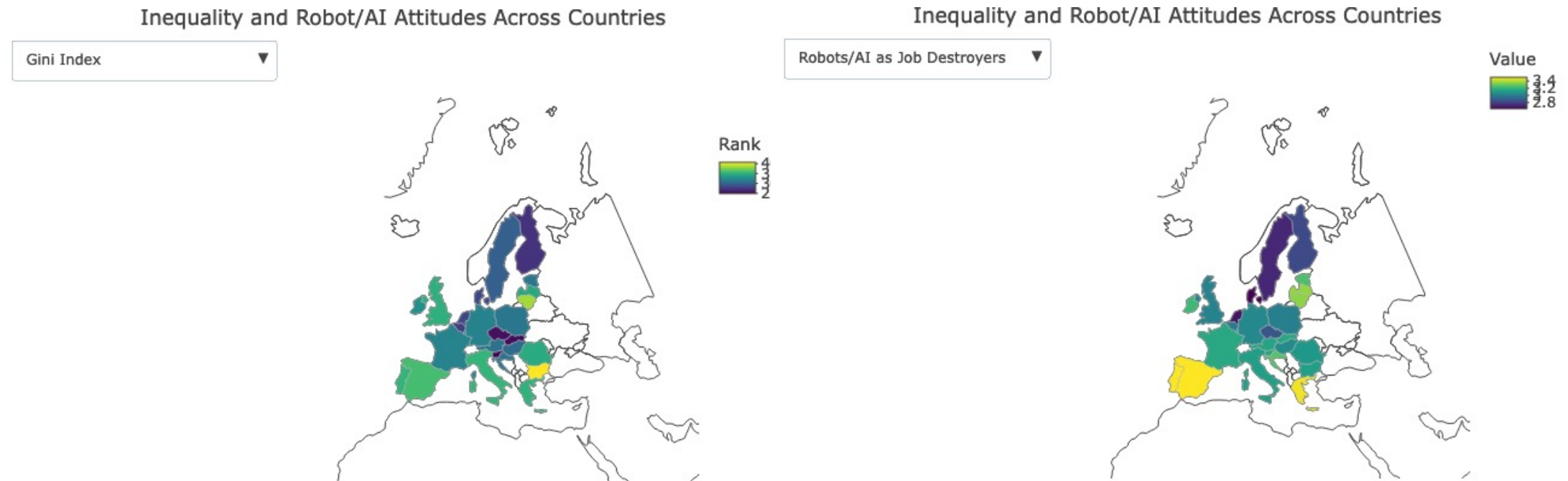
66%

Mental health poor or fair (as opposed to good or excellent)

25%

33%

# Reactions to AI are part of a larger context



# Societal and Individual Outcomes

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Anxiety/Fear

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Loneliness

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Job insecurity

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Sentiment towards out-groups

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Career choices



# Role of Psychologists in Implementing Change

- Process of participation, communication, justice, support by respected others, competence
- Harms, benefits, and ambiguities of the change itself
- Developing self-efficacy for change

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Algorithms, societal views, regulations and guidelines continually developing!



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# Thank You

For more information from APA about on AI and generative AI,  
please see  
<https://www.apa.org/topics/artificial-intelligence-machine-learning>

Thank you for joining. Be well!