Recommended Practices for Vendors and Employers Working with AI-based Assessments

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Refresh on AI-Based Assessments

Terminology

Artificial Intelligence (AI)

- Broad, academic discipline
- Use of computers and software to perform tasks that typically required human intelligence to complete (SHRM)

Machine Learning (ML)

- Automating computer learning process without explicit programming
- Algorithms/models are used to draw inferences from patterns in data
- Approach taken depends on question/problem being addressed

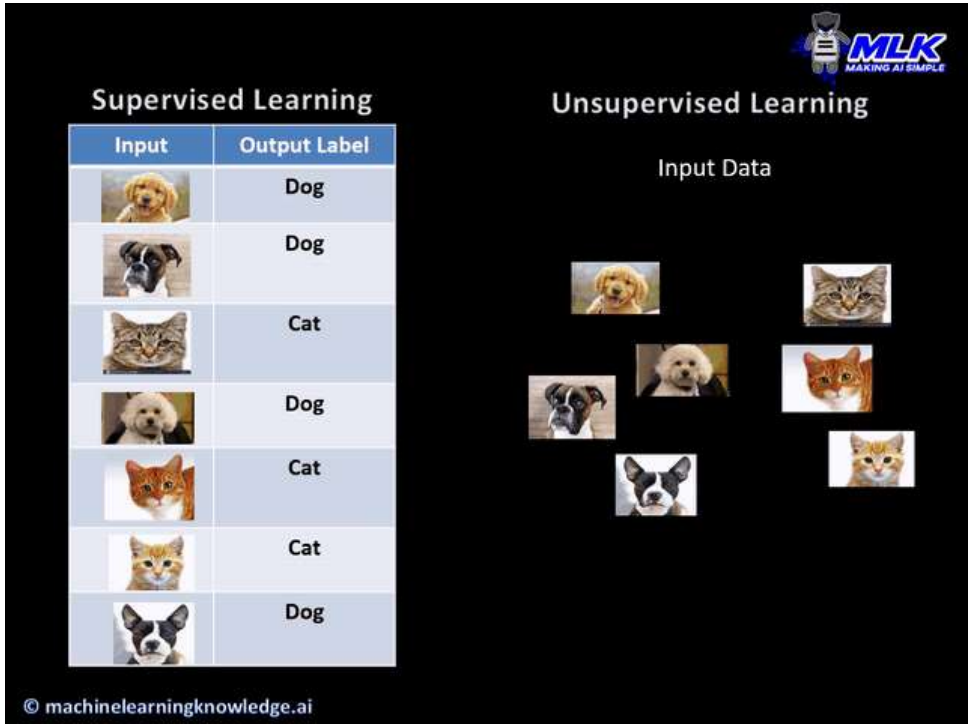
Supervised Learning

- *Has a known outcome*
- Purpose is to develop a model that accurately classifies or predicts outcome
- Two main sub-categories
  - Regression
  - Classification

Unsupervised Learning

- *No known outcome*
- Purpose is to explore the data (e.g., cluster, organize, interpret)
- 3 main sub-categories
  - Clustering
  - Association rule mining
  - Dimension reduction

This example came from …
https://machinelearningknowledge.ai/supervised-vs-unsupervised-learning/



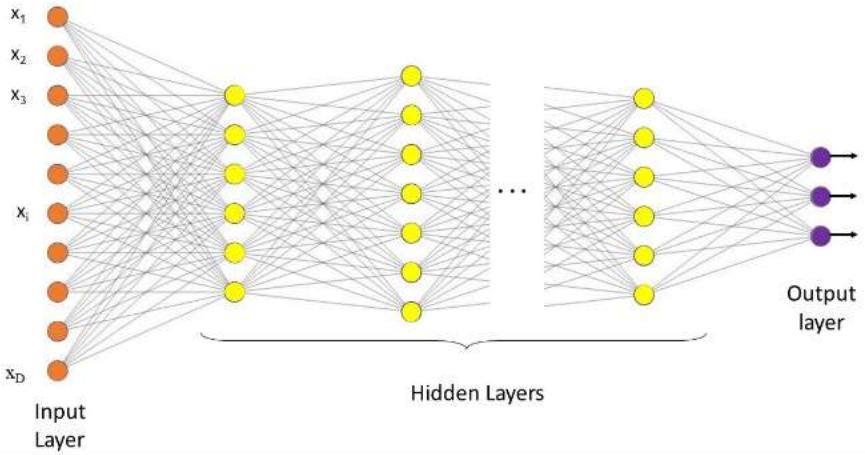
Terminology

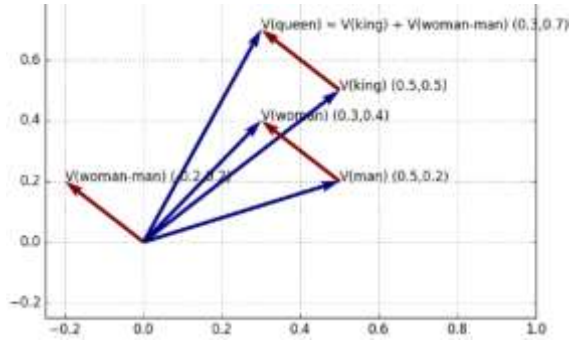
Deep Learning (DL)

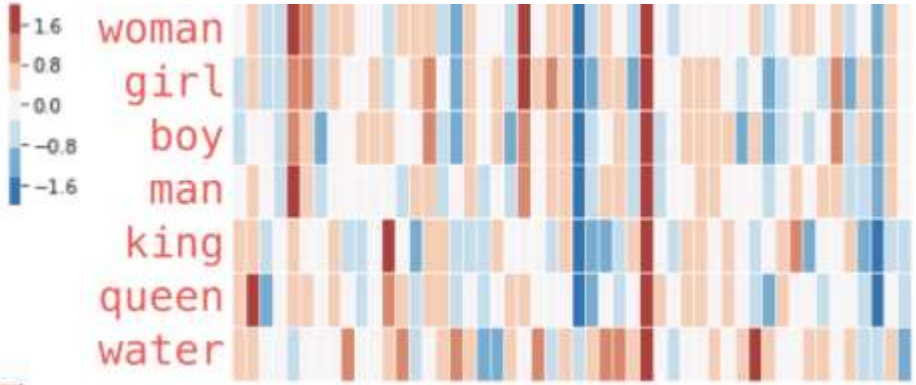
- Leverages artificial neural networks – simulate behavior of a brain
- Inputs are transformed into increasingly abstract representations across three or more (hidden) layers

Natural Language Processing (NLP)

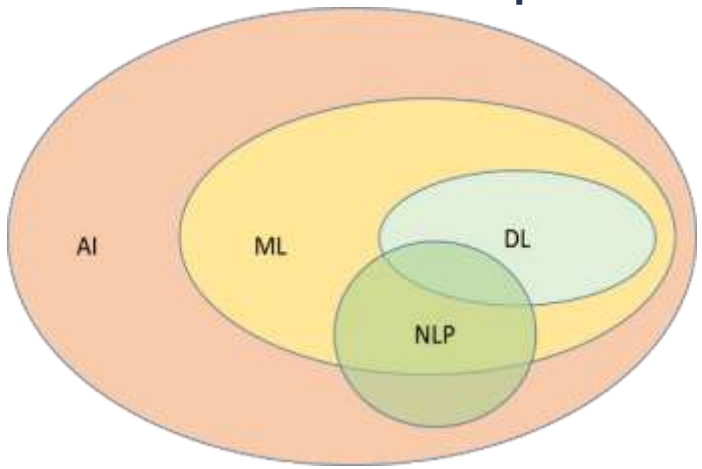
- Focused on programming computers to process, analyze and understand human language data (text or spoken)
- Combines computational linguistics, machine learning, and deep learning







A useful way to visualize these interrelated topics



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* Society for Human Resources Management, Automation and AI in HR (2022), https://advocacy.shrm.org/wp-content/uploads/2022/04/SHRM-2022-Automation-AI-Research.pdf

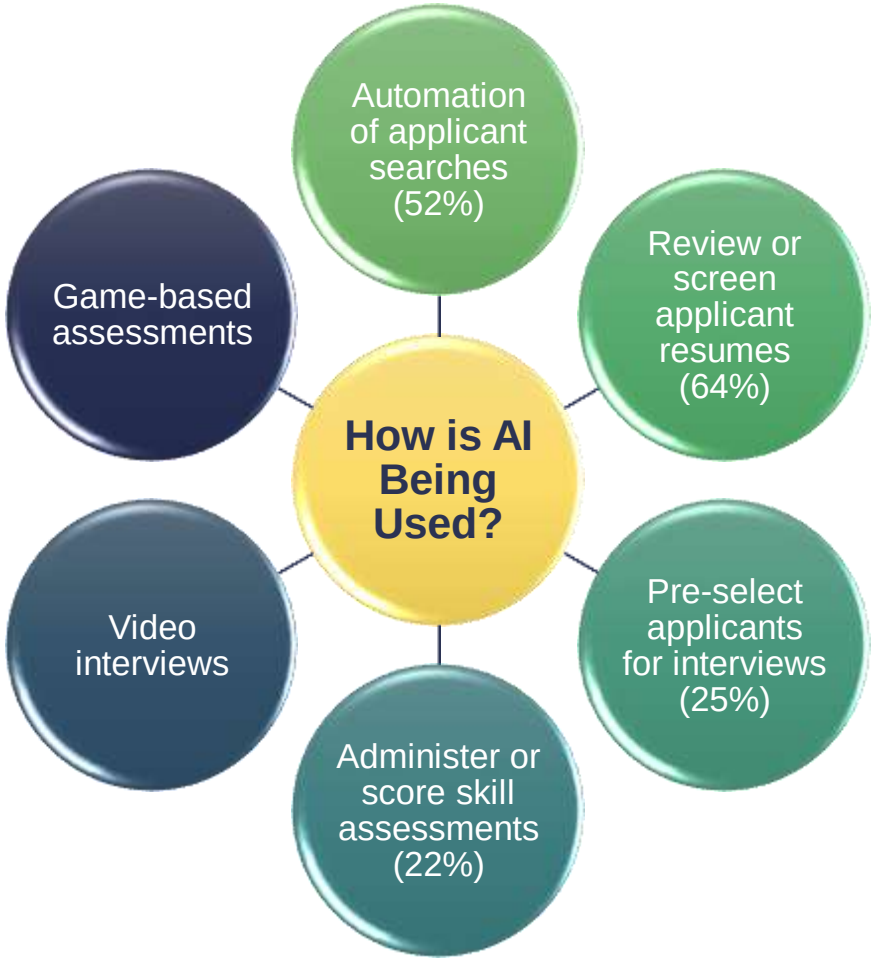
Uses of AI in Recruiting and Hiring*

How much is AI being used in HR?

- About 1 in 4 organizations use AI to support HR-activities
  - ❖(42% in XL organizations)
- 79% of the employers using AI, use it for recruiting or hiring
- 25% of employers plan to start or increase their use of AI

Why use AI in recruiting and hiring?

- 85% Can saves time or increase efficiency
- 44% Can help identify top candidates
- 30% Can reduces bias in hiring decisions
- 18% Can help identify more diverse candidates



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Increasing Focus on Artificial Intelligence

Activity re Regulating the Use of AI in Employee Selection

Federal focus			State and local focus			Other guidance		
Frameworks (e.g., White House blueprint, NIST AI risk management)	EEOC guidance issued, public hearing, Strategic Enforcement Plan	OFCCP proposed scheduling letter changes	New York City Local Law 144 (AEDTs)	Illinois Video Interview Act	Maryland Facial Recog-nition Services	AI TAC report (12/2022)	Center for Democracy and Technology - Civil Rights Standards (12/2022)	Addendum to the SIOP Principles (1/2023)

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Artificial Intelligence Technical Advisory Committee

(AI TAC)

Report Overview

- Lead by Vicki Lipnic, former Commissioner and Acting Chair of the EEOC
- 40 cross-disciplinary, subject matter experts formed subcommittees to address key issues
  - Extensive Survey of AI TAC Members
  - Divided into Subcommittees to study/analyze specific areas and write sections of Report
- Published report on December 21, 2022
  - EEO and DEI&A Considerations in the Use of Artificial Intelligence in Employment Decision Making

SME Disciplines

- Employment law attorneys
- Civil society advocates
- Data Scientists
- Employers using AI tools
- Former EEOC and OFCCP officials
- I/O Psychologists
- Vendors providing AI tools

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Five Areas of Focus

- Uses and Applications
- Transparency and Fairness
- Data Collection
- Uniform Guidelines on Employee Selection Procedures ("UGESP")
- Statistics and Adverse Impact

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Planned Questions to Address

Transparency and Fairness

1. What level of transparency is required
   - From vendors to employers using the assessment?
   - From employers to applicants taking the assessment?

2. What issues related to privacy need to be considered?

3. What is fairness and why is this a critical and complex topic for which vendors and employers need to be aware?

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Data Collection

1. What data need to be evaluated?
   - How should data quality/integrity be evaluated?

2. What samples are common with building AI-based assessments and how should they be evaluated?

3. What other issues related to data are important to consider?

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UGESP

1. Does UGESP apply to AI assessments?

2. How can AI-based assessments be validated and what unique challenges might come up when validating?

3. What is “de-biasing” and how does this relate to consideration of alternatives under UGESP?
   - Are there concerns that arise when de-biasing?

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Statistics and Adverse Impact

1. What framework(s) are relevant to evaluating adverse impact with AI-based assessments?
   - How does this compare to traditional framework(s)?

2. What concerns might arise when deriving model weights based on group differences?

3. What concerns might arise with using dynamic algorithms in employee selection?

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Audience Questions?