



# Leveraging GenAI for Qualitative Research in Institutional Assessment

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# The Assessment Professional's Dilemma



**TO GenAI OR NOT**

# Pain Points We All Know Too Well

Communicating  
Results

Accreditation  
Requirements

Faculty  
Engagement  
and Buy-in

Resource  
Constraints  
(time, money,  
personnel)

Balancing  
Multiple  
Stakeholder  
Needs

Qual/Quant  
Analysis

Environmental  
Scanning

Strategic  
Planning

Annual  
Reporting



Slotnick, R. C. (2024, October 10). *Using AI for program assessment*. Workshop presented virtually to Massachusetts College of Pharmacy and Health Sciences.

Chargebacks911. (n.d.). Customer pain points. Retrieved May 13, 2024, from <https://chargebacks911.com/customer-pain-points/>

**Experimenter vs. Skeptic**

**Ruth Joanna**

## How much do you use GenAI in your assessment work?

Not at all

Minimally

Regularly

## What is your level of interest of GenAI in your assessment work?

Not interested in using

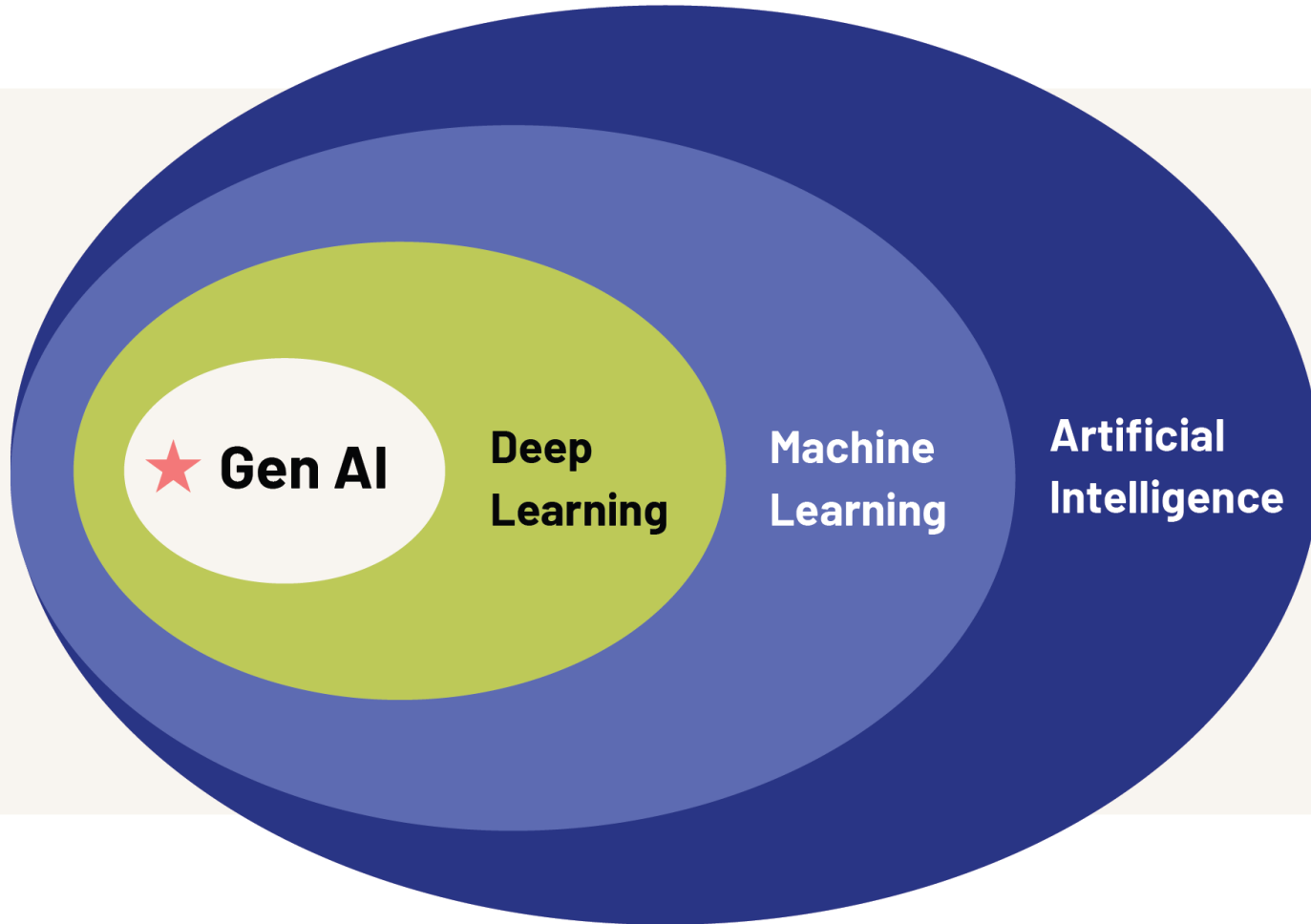
Not using but interested

Skeptical but open

Using because it is mandatory at my institution

Using with enthusiasm and curiosity

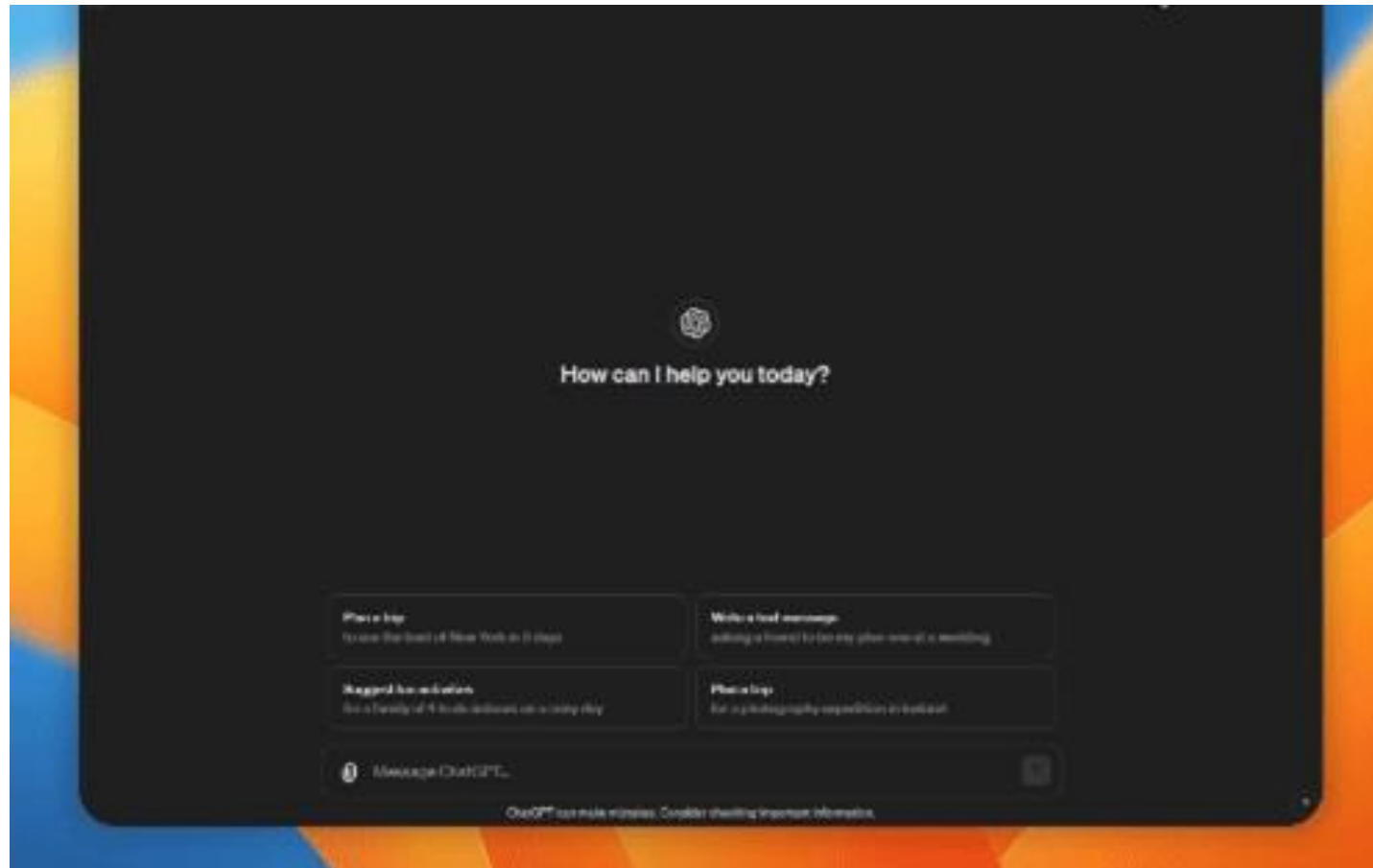
# What do we mean by AI?



- Process vast amounts of training data
- Identify patterns in the data
- Generate new content based on patterns
- Can engage in back-and-forth interaction
- Adapt responses based on context

# GenAI in 60 seconds

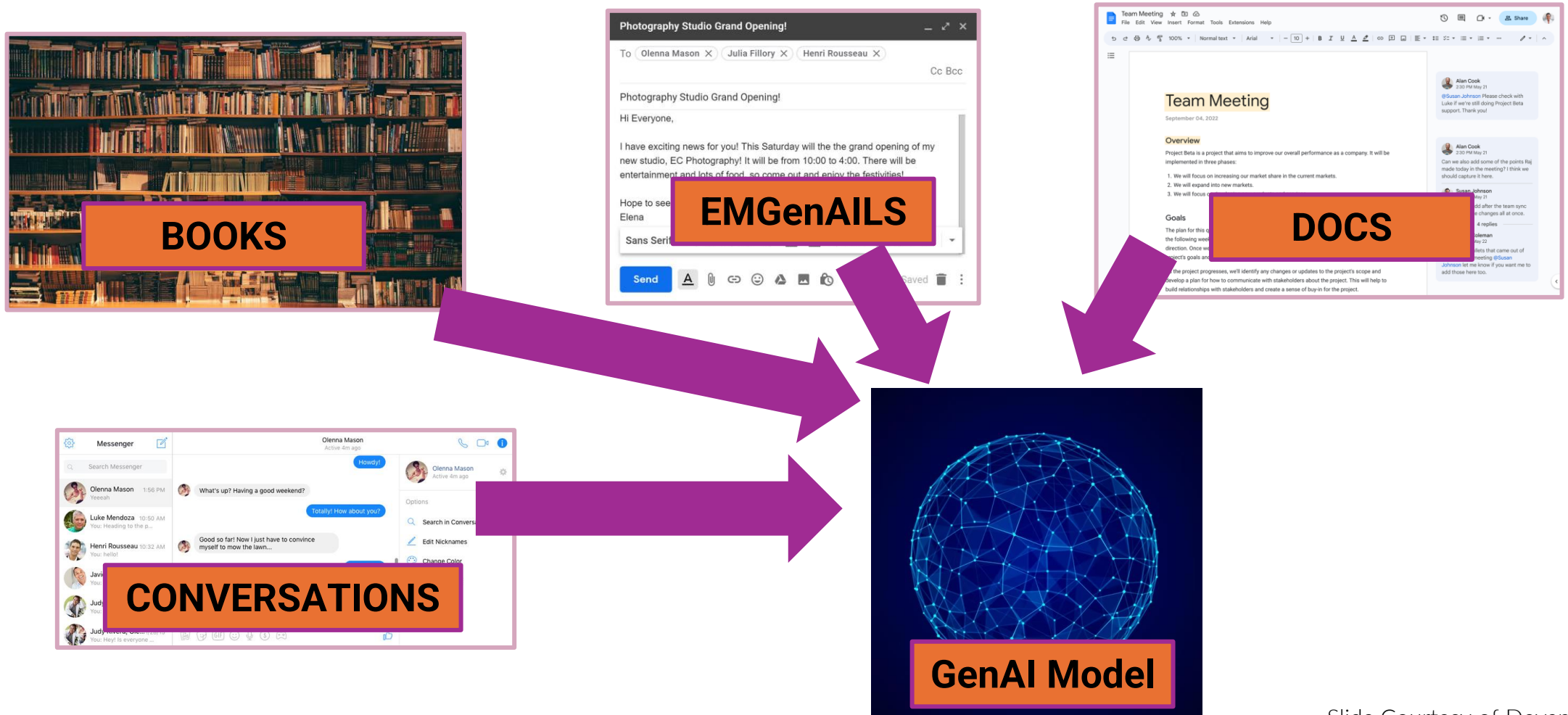
A form of GenAI that uses data to create text, images, voices...





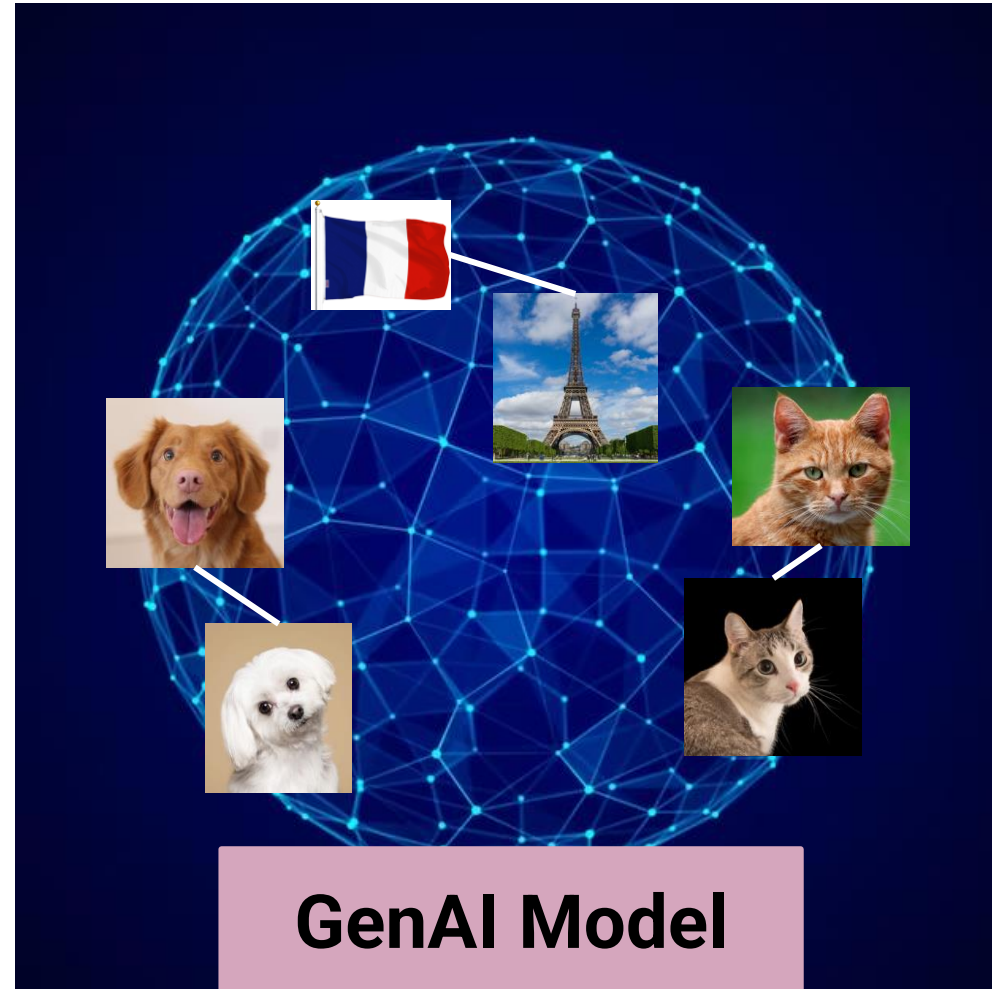
# How does it work?

GenAI Models are trained on vast amount of information



# How does it work?

All this data allows the model to make connections.





# Back to Our Research



# Research Timeline

## November 2022

ChatGPT Public Release  
No guidance for higher education assessment.  
Let's play attitude of BSU OA Staff.

## Summer 2023

Research Planning & Design  
Conducted a literature review on the use of  
qualitative research by the assessment practitioner

## Paper Published, September 2024

1,288 views; one citation.

## Call for Papers, Spring 2023

Special volume in New Directions for Teaching  
and Learning on GenAI in the Design of  
Assessment

## September 2023 (Two Week Test)

Using latest versions

- ChatGPT 3.5 (Sept. 11 update)
- Bard (Sept. 27 version)
- Initial MS Copilot tests

Differences in User Perception of Artificial Intelligence-  
Driven Chatbots and Traditional Tools in Qualitative Data  
Analysis, Slovenia (2025)

# Published in September 2024

ORIGINAL ARTICLE

WILEY

## Enhancing qualitative research in higher education assessment through generative AI integration: A path toward meaningful insights and a cautionary tale

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**Abstract**

This study explores the use of generative AI, specifically Google's Bard and OpenAI's ChatGPT, to enhance qualitative research within higher education assessment, focusing on institutional assessment prac-

# Our Dataset

Chose open-ended DEI-focused questions from the annual assessment reports (in survey form) for analysis and testing of the GenAI tools' knowledge base of DEI-related resources.

DEI enhances understanding of diverse student experiences and institutional practices and promotes equitable assessment practices that address barriers to student success.

# DEI Survey Questions

**Which of the following practices related to anti-racism, decoloniality, diversity, equity, inclusion, and racial justice does the degree program include or utilize? (Check all that apply)**

- Included in the learning outcomes
- Included in the assessment plan
- Specifically addressed in departmental policies
- Department faculty committee
- Curricular revisions
- Professional development
- Providing resources to faculty and staff within the department
- Collection of disaggregated demographic data
- Analysis of assessment results by disaggregated data
- Diverse student advisory groups
- Developed anti-bias leadership competencies
- Other - please describe:
- None at this time

**Open Ended Question:** Use the space below to add any comments regarding practices related to anti-racism, decoloniality, diversity, equity, inclusion, and racial justice that the degree program includes or utilizes.

# Our Approach

## Traditional Qualitative Analysis

**Depth of Insights:** Emphasizes nuanced understanding through human interpretation, capturing complex narratives and contextual GenAIs.

**Time-Intensive:** Requires significant time for manual coding and thematic analysis, often leading to isolation for researchers.

**VS**

## AI-Assisted Qualitative Analysis

**Efficiency:** Streamlines coding and thematic analysis, significantly reducing time spent on data processing.

**Potential Biases:** Risks oversimplification and may overlook unique insights, with concerns about biases in GenAI outputs affecting the validity of results.



# **Importance of Qualitative Analysis in Higher Education Assessment**

Critical for capturing nuanced narratives that inform effective assessment strategies that is not captured in numbers.

# Qualitative Methodological Approach

- Employed Braun and Clarke's (2006) **reflective thematic analysis**, an iterative approach that identifies patterns and themes in qualitative data, especially effective for survey analysis. This framework prioritizes discussion, validation, and intercoder agreement, ensuring the main tenets of **rigorous qualitative analysis** are heeded (Saldaña, 2013).
- Used the **ATLAS Looking at Data protocol**, developed by the Center for Leadership & Educational Equity (n.d.). Designed for efficient data examination, this protocol is particularly suited for analyzing under time constraints.
- Also employed Janesick's (2016) **Researchers Reflective Journaling** method for interrater reliability and documenting evidence-based reflections

# Scholarly Framework on Our Roles

## The Many Roles of Assessment Professionals

Equity  
Champion

Ally

Activist

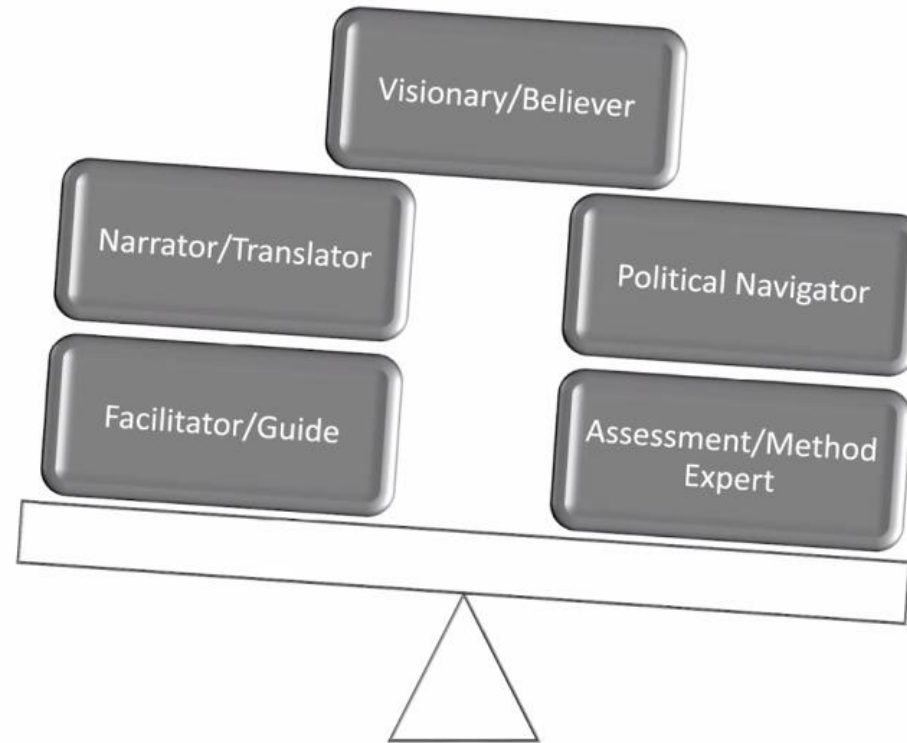


FIG. 1 Representation of assessment practitioner roles.

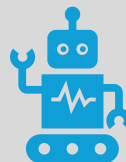
# How We Tested GenAI in Assessment Work



Literature review on GenAI's role in qualitative evaluation.



Selection of open-ended responses focused on Diversity, Equity, and Inclusion (DEI).



GenAI tools used: ChatGPT-3.5, Bard (now Gemini), and initial tests with Microsoft Bing (now Copilot).

## Our Step-by-Step Process for Incorporating GenAI in Qualitative Research

Data Preparation	First Round: Human Analysis	Prompt Engineering	Initial GenAI Testing	Evaluate GenAI-Generated Insights	Disseminate Findings
Cleaned the data, ensuring confidentiality.	Manually and separately coded the data then validated with each other using Braun & Clarke's reflective thematic analysis.	Developed and refined prompts that guide GenAI analysis.	Conduct initial tests with the GenAI tools to assess their insight generation capabilities.	Critically assessed the accuracy and relevance of the insights produced by GenAI.	Prepared materials that outline the strengths and weaknesses of the GenAI-assisted analysis.

## **Strengths** of GenAI in Qualitative Analysis

### **Rapid Data Processing**

LLMs tools demonstrated quick analysis capabilities, processing responses in 3-15 seconds

### **Thematic Analysis Output Good!**

Effective at identifying preliminary themes and patterns across datasets

### **Additional Insights**

LLMs sometimes revealed perspective missed in initial human analysis

## **Challenges** of GenAI in Qualitative Analysis

### **Prompt Engineer Time**

Significant time investment needed to craft and refine effective and standardized prompts

### **Context Limitations**

Tools lacked understanding of institutional context, faculty histories, and DEI initiatives

### **Reliability Concerns**

Inconsistent results between tools and across multiple attempts with same data

## **Other Challenges** of the Study

### **Limitations on data input**

Issues with length and format of text input

### **Erroneous output**

Misstating number of results

Summary rather than thematic results

Initial response correct but subsequent incorrect

### **Additional Insights**

LLMs sometimes revealed perspective missed in initial human analysis

## **Limitations** of the Study

### **Duration**

Short duration of study

### **Limited Tool Experimentation**

Using only Bard and ChatGPT doesn't account for the capability of other tools and the free versions have more limitations, e.g., amount of input

### **Sample**

Small sample size

# Ethical Considerations in GenAI Integration

## Data Privacy & Protection

Ensure use of GenAI compliance with institutional policies of data handling and confidentiality.

Implement measures to de-identify sensitive information before using GenAI tools.

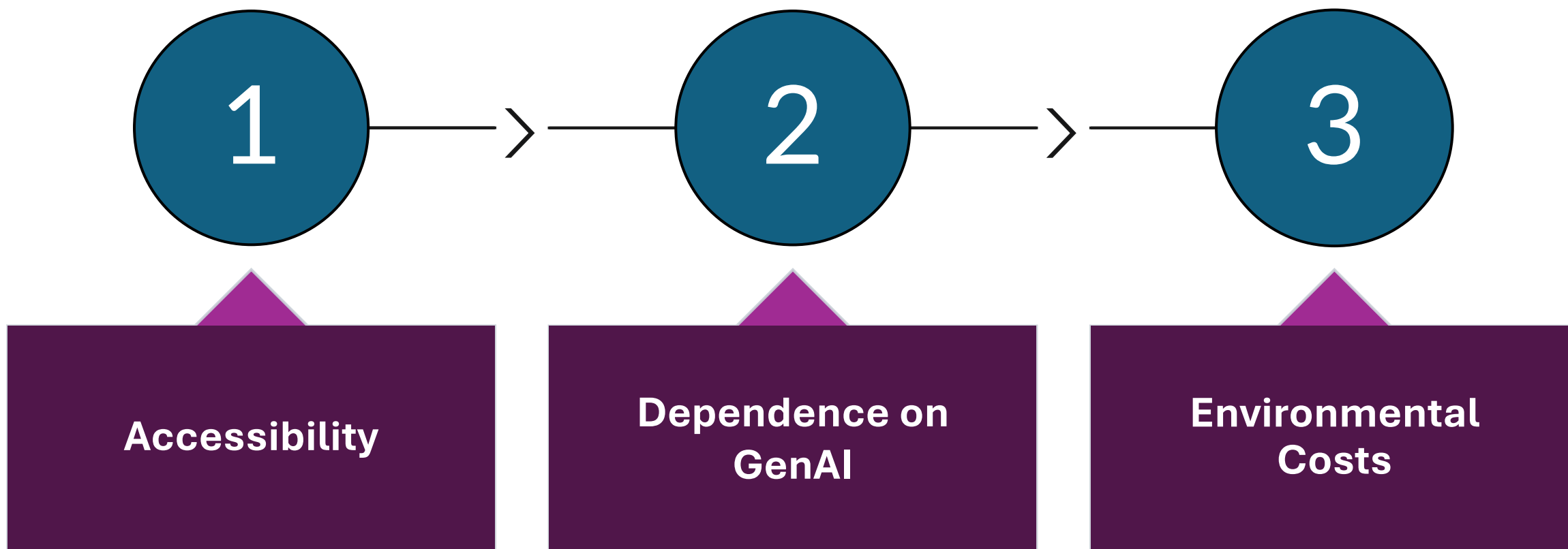
## Bias & Transparency

Acknowledge the potential for bias in GenAI outputs and the importance of critical evaluation.

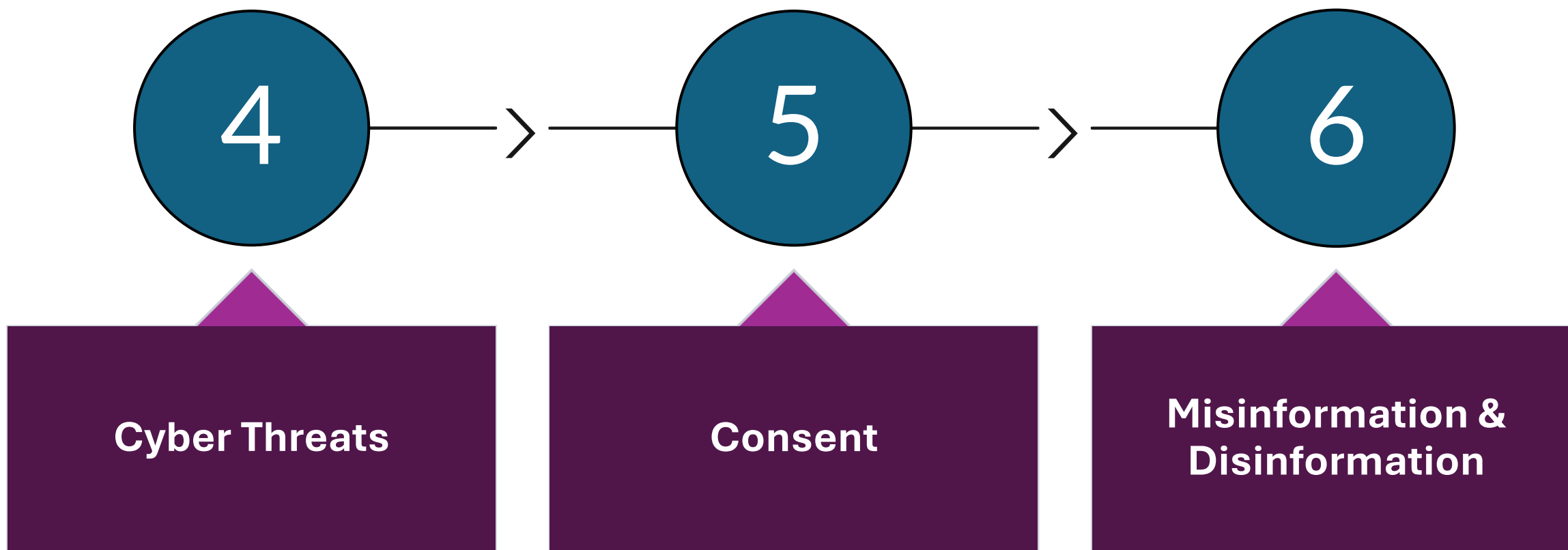
Establish clear guidelines for transparency in GenAI-assisted analyses to maintain accountability and integrity.



# Additional Concerns and Cautions In Using GenAI



# Concerns and Cautions In Using GenAI



# Relating the Research Approach to Our Roles

## The Many Roles of Assessment Professionals

Equity  
Champion

Ally

Activist

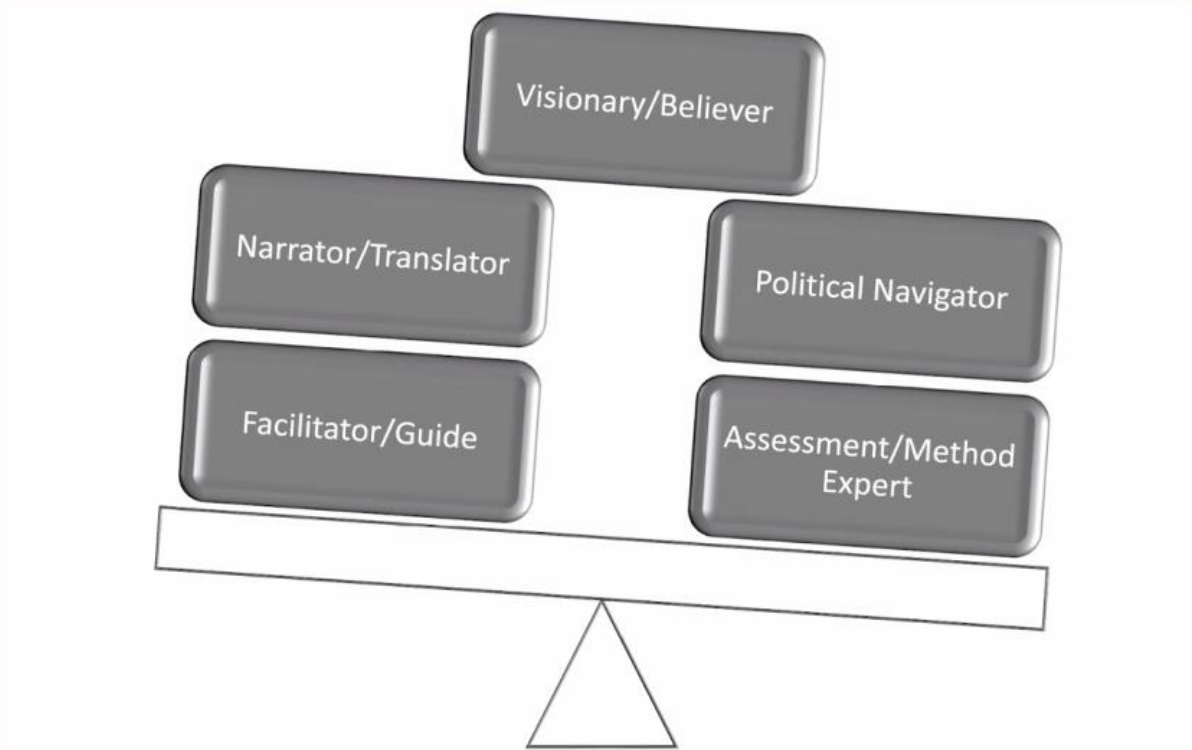


FIG. 1 Representation of assessment practitioner roles.

# Aligning GenAI for Qualitative Analysis in Assessment

Step	Action	Rationale	Assessment Practitioner Role
1	Review GenAI capabilities & possible platforms	Determine strengths and weaknesses of GenAI tools for project analysis.	Assessment/Method Expert Political Navigator Visionary/Believer
2	Prepare materials for GenAI analysis ensuring confidentiality	Collect and clean data. Protect privacy by removing personal identifiers. Ensure ethical handling of data within academic standards (IRB).	Assessment/Method Expert Political Navigator
3	Initial GenAI testing	Assess GenAI's insight generation. Align GenAI capabilities with academic assessment needs.	Assessment/Method Expert Political Navigator
4	Refine and test prompts for further GenAI analysis	Create prompts guiding GenAI analysis for academic program insights. Refine GenAI prompts for accuracy and relevance. Enhance datasets as needed.	Assessment/Method Expert Political Navigator
5	Test GenAI analysis with different platforms	Consider output variation from different GenAI platforms. Choose platform(s) with most reliability and accuracy.	Assessment/Method Expert

# Aligning GenAI for Qualitative Analysis in Assessment

Step	Action	Rationale	Assessment Practitioner Role
6	Troubleshoot GenAI implementation	Address technical challenges and adjust accordingly for more reliable results.	Assessment/Method Expert
7	Evaluate GenAI-assisted analysis	Ensure that results are accurate and relevant. Identify researcher and GenAI biases.	Assessment/Method Narrator/Translator Political Navigator
8	Review results and prepare for dissemination	Develop materials outlining the strengths and weaknesses of GenAI-assisted analysis.	Narrator/Translator Political Navigator Visionary/Believer
9	Advance knowledge and practical applications	Share results with stakeholders. Leverage GenAI to enhance academic success and improve programs using data-driven insights. Consider additional field testing.	Facilitator/Guide Method Expert Narrator/Translator Visionary/Believer
10	Consider impact of GenAI-assisted analysis	Examine and reflect on equity and social justice implications of GenAI insights. Use GenAI with fairness and inclusivity-mindedness.	Social Justice Activist Political Navigator

# Conclusion and Future Directions

## GenAI's Transformative Potential

May enhance qualitative research in higher education assessment by streamlining data analysis and improving efficiency.

## Importance of Human Oversight

Human judgment is crucial to ensure that GenAI-generated insights are contextualized and validated, preserving the depth of qualitative analysis.

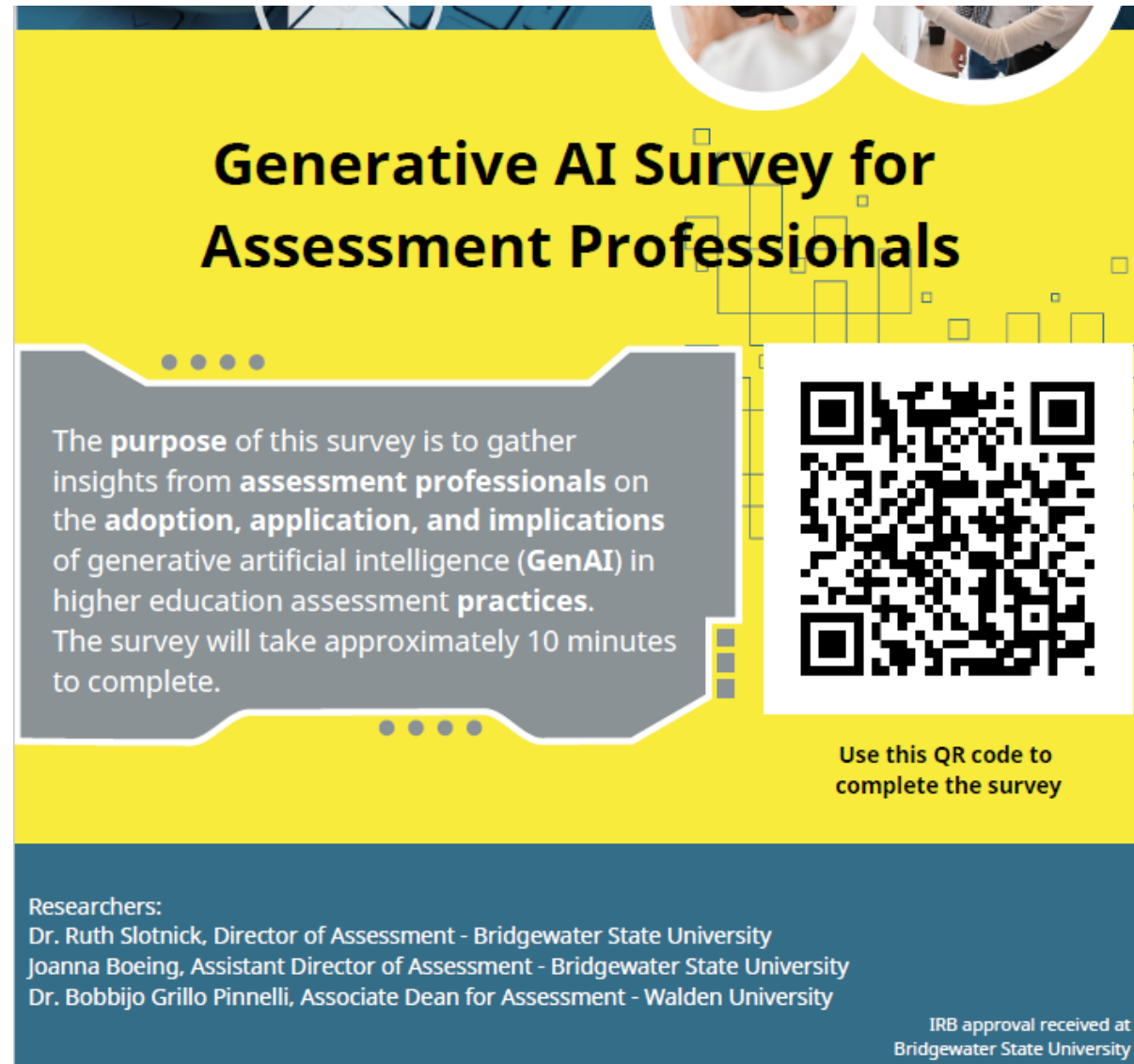
## Ethical Considerations

Integration of GenAI must be approached with a strong ethical framework to address potential biases and ensure equitable assessment practices.

## Future Research Opportunities

Continued exploration of GenAI tools and careful applications in qualitative research will provide valuable insights and guide best practices for assessment professionals.


# Take Our Survey



The poster features a yellow background with a blue header and footer. At the top right, there are two circular images: one showing a person's face and another showing hands shaking. The title 'Generative AI Survey for Assessment Professionals' is centered in bold black text. Below the title is a grey speech bubble containing text about the survey's purpose and duration. To the right of the speech bubble is a large QR code. Below the QR code is the text 'Use this QR code to complete the survey'. At the bottom left, the researchers' names and titles are listed. At the bottom right, it states 'IRB approval received at Bridgewater State University'.

## Generative AI Survey for Assessment Professionals

The **purpose** of this survey is to gather insights from **assessment professionals** on the **adoption, application, and implications** of generative artificial intelligence (**GenAI**) in higher education assessment **practices**. The survey will take approximately 10 minutes to complete.

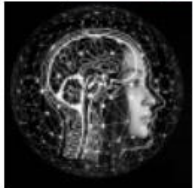








Use this QR code to complete the survey

Researchers:  
Dr. Ruth Slotnick, Director of Assessment - Bridgewater State University  
Joanna Boeing, Assistant Director of Assessment - Bridgewater State University  
Dr. Bobbijo Grillo Pinnelli, Associate Dean for Assessment - Walden University


IRB approval received at  
Bridgewater State University

# Join the Discussion






    

## Java Jams: AI for Higher Education Assessment Professionals

 Public group

[Earn an Active Group badge](#)



 Media  Poll

A screenshot of a Facebook group page. The header image shows a woman's profile with digital circuit patterns overlaid on her face. The group name is "Java Jams: AI for Higher Education Assessment Professionals". It is a public group, and there is a link to "Earn an Active Group badge". Below the header is a "Start a public post" button and options for "Media" and "Poll".



# Q&A



Thank you!



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