



INSTITUTIONAL EFFECTIVENESS PRESENTS:



CONVERSATIONS
ABOUT WINTHROP DATA

**SOMETHING WICKED THIS WAY COMES:
USING AI TO ANALYZE DATA**

OCTOBER 28, 2025

www.winthrop.edu/ie/ssp



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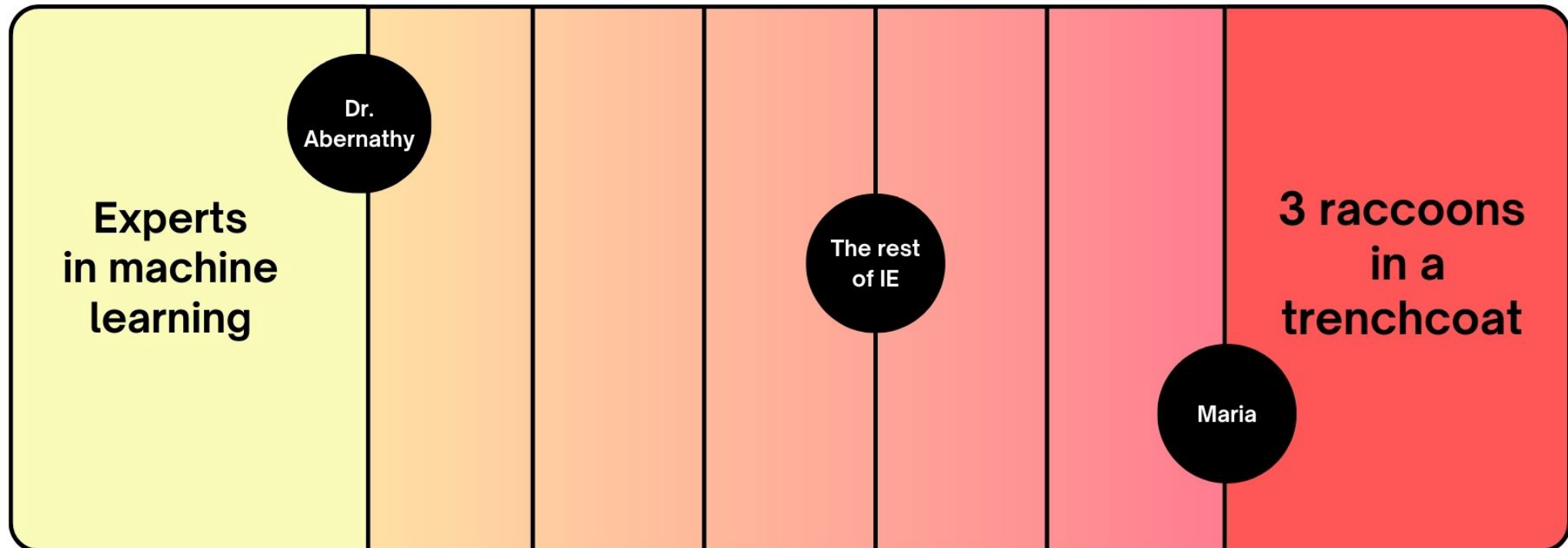
Agenda

- Introduction and Background
- Sample AI Usage Guidelines
- Door Prize Drawing
- Dept of IE Panel
- Table Activity – Analysis of Qualitative Data
- Large Group Conversation
- Next Session



Why is IE talking about AI?

Scale of AI Expertise



A stage setting with red curtains on the left and right sides, each tied back with a gold rope and tassel. Five spotlights are positioned at the top, casting a bright yellow glow onto the center stage. The text "AUDIENCE POLL" is written in a gold, serif font in the center of the stage.

AUDIENCE POLL

Have you used AI to analyze data?





Definitions

Artificial Intelligence (AI)

The capacity of machines to mimic human cognitive functions such as learning, problem-solving, and pattern recognition, enabling them to perform tasks that normally require human intelligence. It includes various subfields, such as machine learning and natural language processing.

Example: Virtual assistants like Siri or Alexa use AI to understand and respond to voice commands.

Machine Learning (ML)

A subfield of AI where computer systems are given the ability to learn and improve from experience without being explicitly programmed. This is usually achieved by training the system with large amounts of data.

Example: Recommendation systems, like those used by Amazon, suggest products based on a user's browsing and purchasing history.

Large Language Model (LLM)

An AI model that can understand, generate, and interpret human-like text based on the input it receives.

Example: OpenAI's GPT-4 can write essays, summarize texts, and answer complex questions.

Source: [University of North Florida Office of Faculty Excellence](#)





Use a Human-First Approach to AI: Use AI as a coach/tool **NOT** a replacement

- Use AI to spark inquiry, test assumptions, and deepen understanding, not as a final authority.
- Use AI for first-level analysis of patterns. Also remember that human expertise is essential to interpret meaning, context, and implications.
 - Let AI handle the “what,” but you must carefully decide the “why” and “how.”
- The goal should be to elevate human work, not eliminate/replace it with AI.





Something wicked cool this way comes

- AI can be a useful tool to level the data analysis playing field by offering:
 - **Faster data processing-** AI can quickly analyze large amounts of data and identify trends
 - **Additional Insights-** AI can uncover hidden relationships and patterns across datasets (e.g., course outcomes, survey data, demographic variables) that might be overlooked through manual analysis.
 - **Predictive Analytics-** AI models with enough quality data fed into their algorithms can forecast future performance trends or identify at-risk programs/students based on historical data, enabling proactive improvement strategies.
 - **Report Automation & Customization-** AI tools can generate customized dashboards, summaries, and visualizations that make data more accessible and actionable for faculty and staff





Something wicked this way comes

- Environmental impact – a request made through ChatGPT consumes 10 times the electricity of a Google search*
- Copyright violations/IP theft
- Privacy violations
- Access to enterprise tools
- Cultural biases
- Hallucinations
- Deepfakes
- Workforce changes exacerbating global inequities
- Development of AI 'survival drive'

RECOMMENDED READING:

[AI in Education - Guidelines for Responsible and Ethical Use](#)

by Dr. Marshall Jones

*Source: [International Energy Agency](#)





Office of IR AI Guidelines

- ✓ Weigh the environmental cost against the need to use AI for the task at hand.
- ✓ Comply with all official University policies related to data security and privacy ([FERPA Privacy of Education Records](#), [Security Policy for Administrative System Users](#),
- ✓ Always anonymize any personally identifiable information (PII) before using it with a generative AI tool.
- ✓ Put data checking processes into place to ensure the accuracy and validity of AI results.
- ✓ Check AI content for bias and address as needed. This check could be a simple random sampling or automated redundant AI model.
- ✓ When generative AI tools are used, especially in external-facing documents, disclose details about which tools were used and how.





Office of IR AI Guidelines

X Don't upload **identifiable**, sensitive, confidential, or protected institutional data into an AI tool – even those tools approved for use.

'Identifiable' includes student & employee names, building names, even Winthrop's name.

X Don't use AI tools that have been flagged for security concerns.

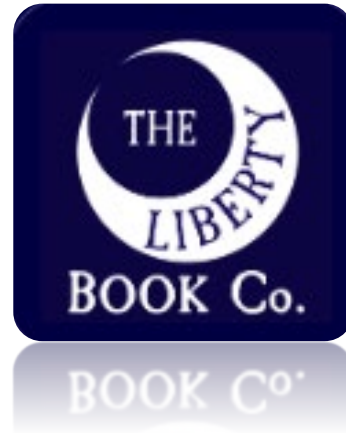
X Avoid using AI to generate creative content such as images, graphics, or video unless the software can verify its model was built without infringing upon existing copyrights or plagiarizing the creative work of humans.





Door Prize Drawing

Enjoy a human-written book, our treat!





IE Experiences with AI

- Machine learning to create predictive models
- ChatGPT to assist with time-to-graduation calculation
- Using Claude LLM to analyze open-ended survey responses





Machine Learning for Predictive Models

Example projects:

- 1) Predicting fall-to-fall retention for first-time freshmen based on academics, scholarships, demographics, difficulty of schedule, etc.
- 2) Predicting enrollment of students who have applied to WU based on HSGPA, test scores, class rank, distance from campus, financial aid eligibility, etc.
- 3) Predicting capacity of alumni donors to make large gifts based on philanthropic behavior, engagement metrics, demographics, etc.

Need some help with an idea for using machine learning to make predictions for your data? Let us know!

INSTITUTIONAL RESEARCH

Submit a request for official data not currently found on the I.R. website

[IR Data Request Form](#)

RESEARCH ANALYSES

Submit a request for a research analysis on a wide variety of topics using data science methodologies

[RA Request Form](#)

BUSINESS INTELLIGENCE & DATA MGMT (BIDM)

Submit a request for live data, programming updates or issues

[BIDM Request Form](#)



	A	B	C	D	E	F
1	stu ID	Term started	Term graduated	years to graduate		
2	student 1	Fall 1986	Spring 1990			
3	student 2	Fall 1987	Spring 1991			
4	student 3	Fall 1986	Fall 1991			
5	student 4	Fall 2000	Fall 2005			
6	student 5	Fall 2002	Spring 2005			
7	student 6	Fall 2021	Spring 2026			
8	student 7	Fall 2020	Spring 2025			
9	student 8	Fall 2018	Fall 2023			
10	student 9	Fall 2018	Fall 2023			
11	student 10	Fall 2018	Fall 2023			
12						
13						
14						
15						

I have an excel spreadsheet with headers stu ID, term started, term graduated, and years to graduate, A,B,C and D. In column D, I would like a formula that can calculate how long it took the student to graduate if they started in a fall term and year and graduated in a fall term and year or a spring term and year. an academic year is fall to spring. if they go fall to fall that is 1.5 years and so on.

To calculate how long a student took to graduate in years (column D: *Years to Graduate*), based on their start and graduation terms, you can use a formula that takes into account:

- Each academic year is from Fall to Spring
- Therefore:
 - Fall to Spring = 1 year
 - Fall to Fall = 1.5 years
 - Fall of Year X to Spring of Year X+2 = 2.5 years, etc.

Assumptions:

- Column B: term started (e.g., "Fall 2021")
- Column C: term graduated (e.g., "Spring 2024")
- Column D: years to graduate (where you want the formula)

Excel Formula (for cell D2):

Paste this in D2 and copy down:

excel Copy code

```
=IF(AND(ISNUMBER(SEARCH("Fall", B2)), ISNUMBER(SEARCH("Fall", C2))),
(RIGHT(C2,4) - RIGHT(B2,4)) + 0.5,
"
```

Ask anything

Attach Search Study Voice

How It Works:

- `SEARCH("Fall", B2)` checks if the start term is Fall.
- `SEARCH("Fall", C2)` or `SEARCH("Spring", C2)` checks if the end term is Fall or Spring.
- `RIGHT(C2, 4)` extracts the year from the graduation term.
- `RIGHT(B2, 4)` extracts the year from the start term.
- If graduation is in Fall, we add 0.5 years.
- If graduation is in Spring, we assume it's a full year interval.
- If the pattern doesn't match (e.g., started in Spring), it returns an empty string "".

Examples:

Term Started	Term Graduated	Years to Graduate
Fall 2020	Spring 2022	2
Fall 2020	Fall 2021	1.5
Fall 2021	Spring 2024	3
Fall 2021	Fall 2024	3.5

Voilà

	A	B	C	D	E	
1	stu ID	Term started	Term graduated	years to graduate	terms to graduate	
2	student 1	Fall 1986	Spring 1990	4	8	
3	student 2	Fall 1987	Spring 1991	4	8	
4	student 3	Fall 1986	Fall 1991	5.5	11	
5	student 4	Fall 2000	Fall 2005	5.5	11	
6	student 5	Fall 2002	Spring 2005	3	6	
7	student 6	Fall 2021	Spring 2026	5	10	
8	student 7	Fall 2020	Spring 2025	5	10	
9	student 8	Fall 2018	Fall 2023	5.5	11	
10	student 9	Fall 2018	Fall 2023	5.5	11	
11	student 10	Fall 2018	Fall 2023	5.5	11	
12						
13						

Using an LLM to analyze survey data

- 1) Deidentified data – Faculty/staff names were removed, proper names of university, colleges, buildings were abbreviated/replaced
- 2) Converted file to CSV.
- 3) Split spreadsheet into separate files by question and/or college to adhere to file size limits.
- 4) Crafted prompt, tweaking as needed. Saved prompt for consistency across sessions.
- 5) Checked results for accuracy.

Survey Question: As you look back at your experience, what were the best aspects of your overall education at Winthrop?

1. Faculty Relationships & Mentorship: Students consistently highlighted the profound impact of meaningful relationships with professors who genuinely cared about their success. They valued faculty who were accessible, supportive, and invested in their personal and academic growth beyond just teaching course content.



Table Activity

Access the data file: <https://bit.ly/sspai>

Each table will be assigned a different LLM (or none!):

- Chat GPT www.chatgpt.com
- Claude claude.ai
- Copilot 
- Gemini gemini.google.com





Table Activity

Start with the prompts below to analyze open-ended responses from 2024-25 Student Success Partner session evaluations.

Adjust the prompts as desired. Each group will share out so we can compare and discuss the various outputs.

Part 1: What do these presentation evaluation results tell us, and what actions can be taken based on them?

Part 2: Create a visual based on this data, showing the top five most frequently mentioned themes.





Table Activity Debrief

- What insights did your AI tool generate?
- What did you find useful about the platform that you used?
- Did you experience any issues?
- What surprised you?





Discussion

- What are some potential ways **AI-assisted data analysis** could be used for continuous improvement in your job or department?
- What steps would you need to take in order to ensure responsible use of the AI tool?





Wrap-Up

- **Thank you** for attending! **Coaster** is our departing gift to you.
- Feel free to take the **handout** with you for future reference.
- Please, complete an **evaluation form** – on paper or scan the QR code.



PULLING BACK THE CURTAIN
ON OUR NEXT SESSION:

**WHO WAS ENROLL'D 'MONGST WONDERS:
STUDENT ENROLLMENT
WITH DR. JOSEPH MILLER**

CONVERSATIONS
ABOUT WINTHROP DATA



**NOVEMBER 11, 2025
2:00 - 3:15 P.M.
DIGS 114**

www.winthrop.edu/ie/ssp

STARRING:

