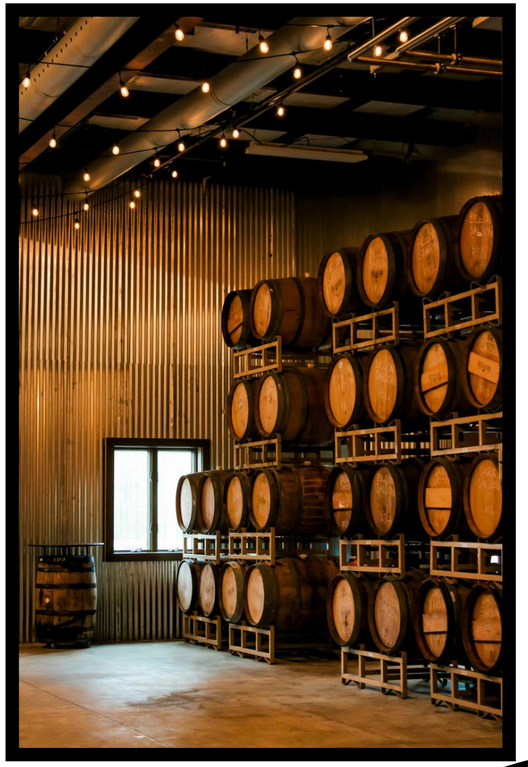
BEACON
Business Economic and Community Outreach Network
At Salisbury University

AI in Hospitality

AI IN HOSPITALITY: APPLICATIONS (LITERATURE REVIEW)

Examples from Oracle NetSuite & case studies:

- Chatbots & Virtual Assistants
- Surveillance Automation
- Automated Cleaning Schedules
- Voice-Activated Devices
- Targeted Marketing
- Robot Cleaners
- Virtual Tours



The hospitality industry is predicted to increase AI investment by 60% from 2023 to 2033, with the AI hospitality market expected to climb from $90 million (2023) to $8 billion (2033).

Schwarz, Lisa. “AI in Hospitality: Advantages & Use Cases.” Oracle NetSuite, 6 Sept. 2024, www.netsuite.com/portal/resource/articles/business-strategy/ai-hospitality.shtml.

Survey Results

- 25 Question Survey
- 47 Total Responses (Limited number of Hospitality Industry Respondents)

Overall Survey Results

The top 3 tech adoption challenges are:

1. Financial Barriers
2. Data Security/Privacy Concerns
3. Lack of Knowledge/Expertise

- Most participants currently use some type AI in their operations.
- Only **4%** of participants have a specific AI budget in their business, while **18%** plan to allocate future funds, and **79%** do not have a budget at all.
- Most organization's have employees who have independently learned AI skills (**39%)**
- **87% Agree or Strongly agree -** *AI is evolving rapidly, so I am waiting to see which applications are best for my business.*
- Hesitation to adopt AI due to the **security issues** involved.

Results Analyzed with a Matrix

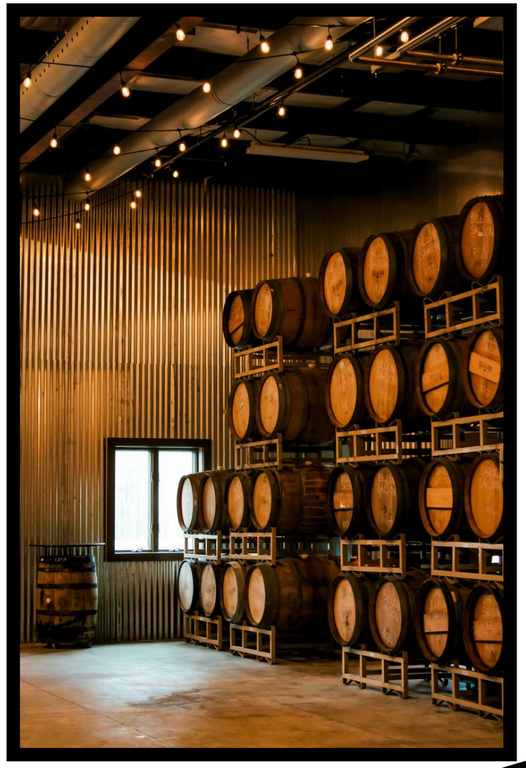
- Categories ranked by importance using a scale of 1 (least important) to 4 (most important).
- Each category plays a role in AI readiness, but some are more critical than others.
- The matrix helps identify strengths and gaps in a business’s AI preparedness

HOSPITALITY AI READINESS MATRIX

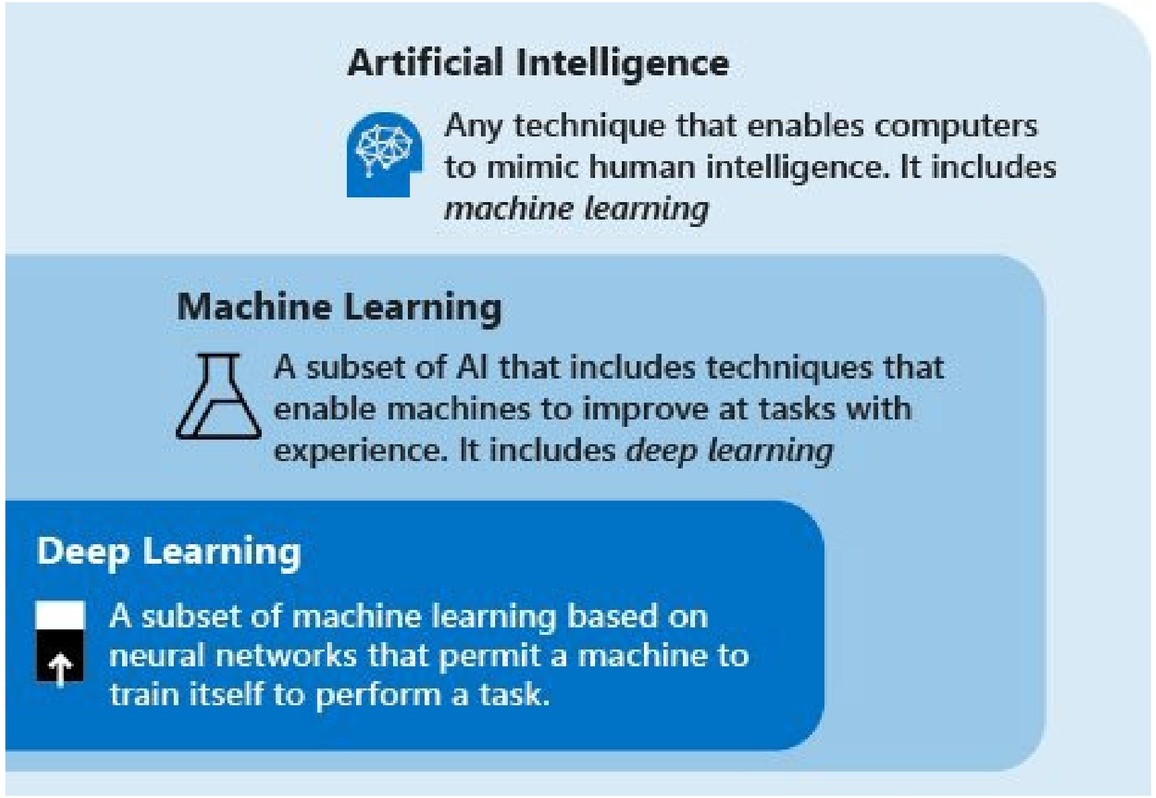
Preparedness Category	1	2	3	4	5	Weight	Totals
Technology usage / acceptance	Non – Tech	Limited tech	Industry standard	Above average	Innovator	4	16
	1	2	3	4	5		
AI Awareness	Unaware	Basic knowledge	Moderate knowledge	Informed	Expert	2.5	7.5
	1	2	3	4	5		
Openness to / Trust of AI	Resistant	Hesitant	Neutral	Receptive	Open	3.5	17.5
	1	2	3	4	5		
Capital capacity	None	Limited	Adequate	Moderate	Strong	2.5	5
	1	2	3	4	5		
HR / Staff Capacity	Insufficient	Limited	Satisfactory	Prepared	Fully Capable	2.5	10
	1	2	3	4	5		
Organizational learning / support	Unable	Minimal	Sufficient	Able	Fully Capable	2	8
	1	2	3	4	5		
Technological capacity	Inadequate	Limited	Moderate	Solid	Robust	3	9
	1	2	3	4	5		
						AI Readiness Score: Hospitality	**73**

Reactions

- Do the results reflect your views?
- Is budget/cost a significant barrier?
- How will your workforce react?
- What training will they need?
- Is the hospitality industry proactive, or reactive? Your firm?

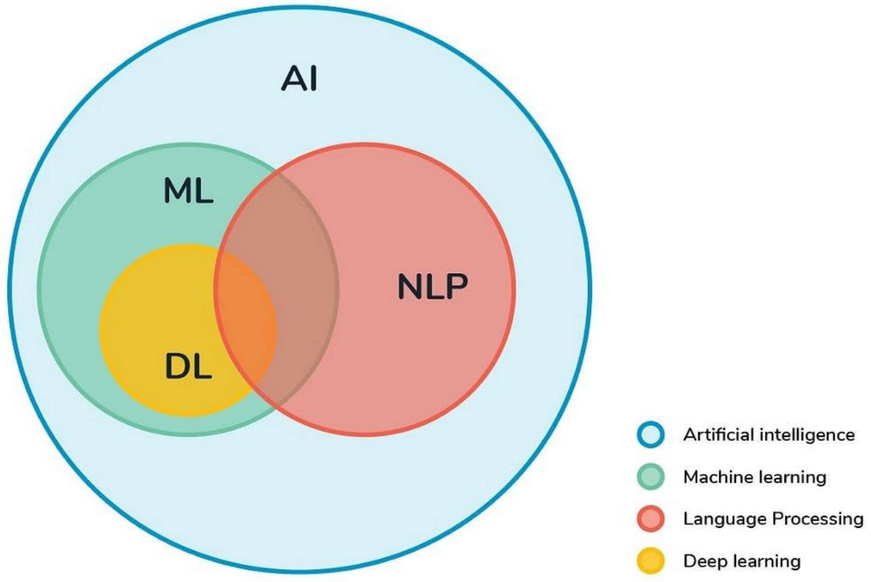


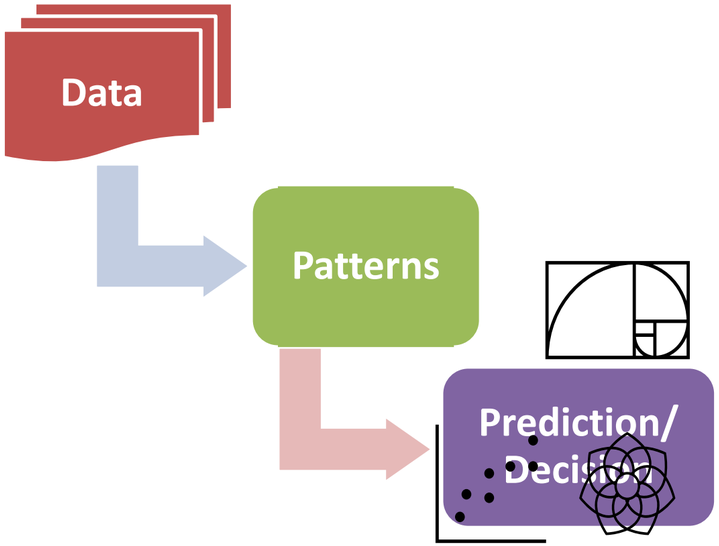
AI(Artificial Intelligence)/ML(Machine Learning)



- Computer with human intelligence:
  - understanding natural language
  - recognizing patterns
  - making decisions
  - learning from experience

How Machine Learning Works

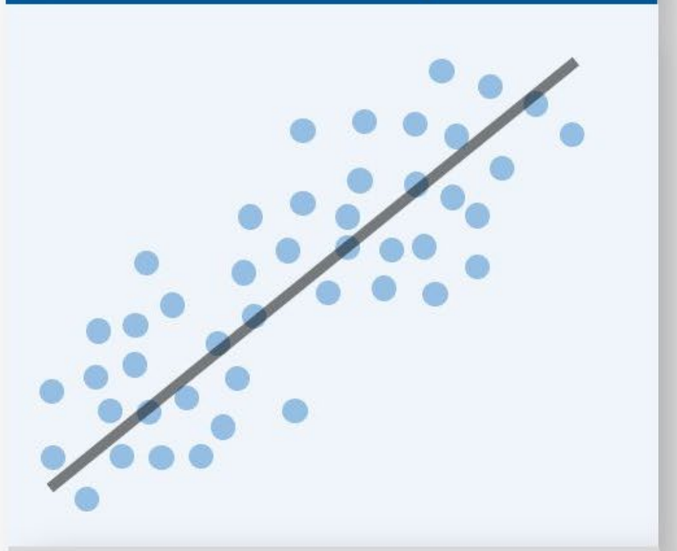




Three Main Types of Machine Learning

Regression

How Many?

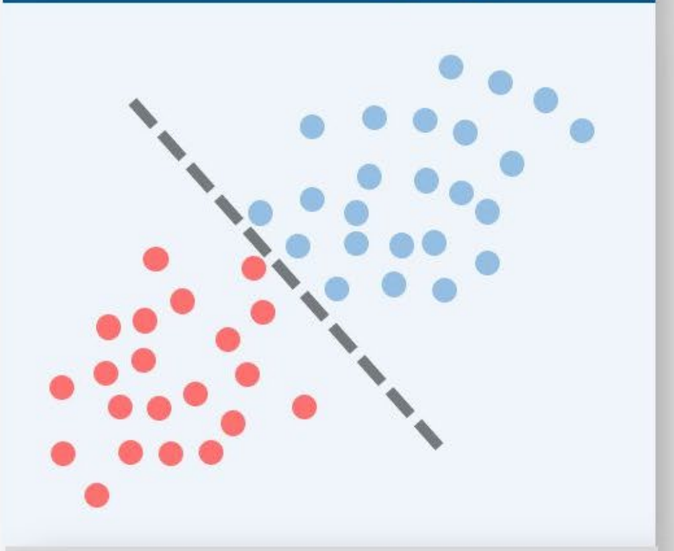


Typical Applications:

- Sales forecast prediction
- Financial portfolio prediction
- Salary forecasting
- Understand relationship between advertising spending and revenue

Classification

What Category?

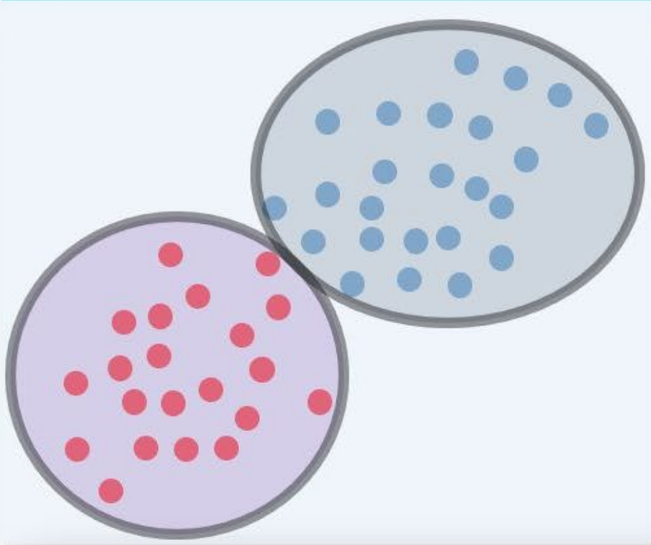


Typical Applications:

- Identifying whether the customer will churn or not
- Facial Recognition
- Will someone be likely to purchase my product?

Clustering

In What Group?



Typical Applications:

- Segmentation of consumer base in the market
- Analysis of social networks
- What are groups of customers with similar purchasing characteristics?

AI has been around … for a long time!

AI is a tool to help people to …

- take the complexity out of the systems
- understand the data in a deeper way
- make prompt and informed decisions
- optimize operations

AI is NOT always right!

Risks and Challenges

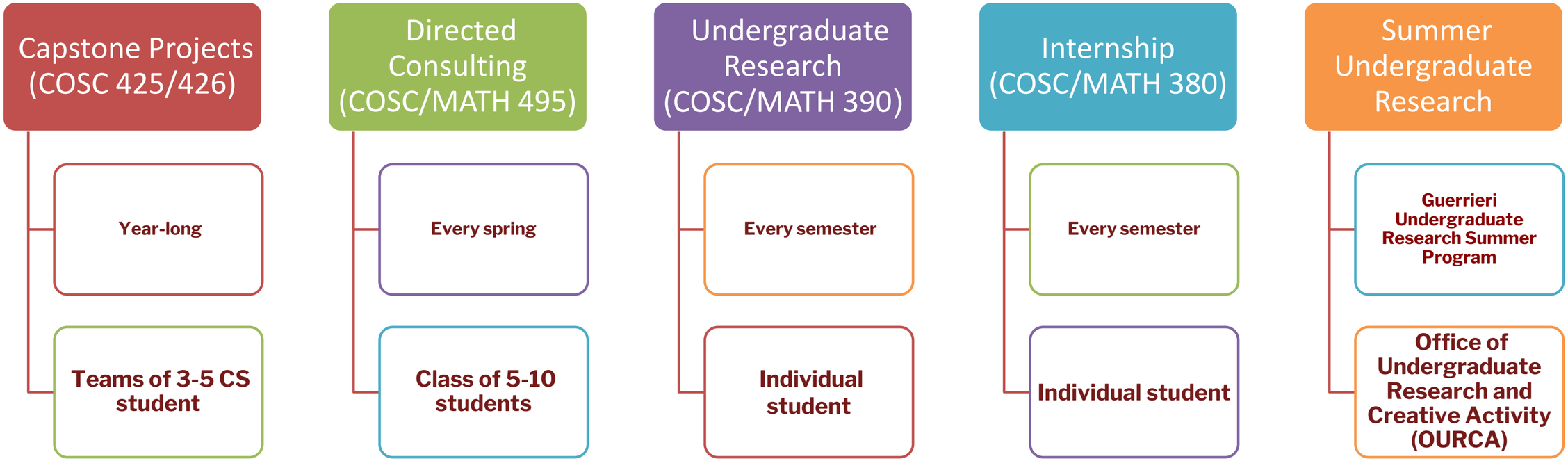
- Upfront and ongoing investment (in technology and training)
- Data security and privacy concerns (data protection regulation compliance)
- AI systems have bias (human oversight)
- Personalized guess experience vs loss of human interaction due to over-reliance on AI

Focus should remain on leveraging AI to complement and enhance the human elements

Future Trends

- Advanced Robotics
- Smart Energy Management System
- Smart Guest Room

AI Project Activities at Salisbury University



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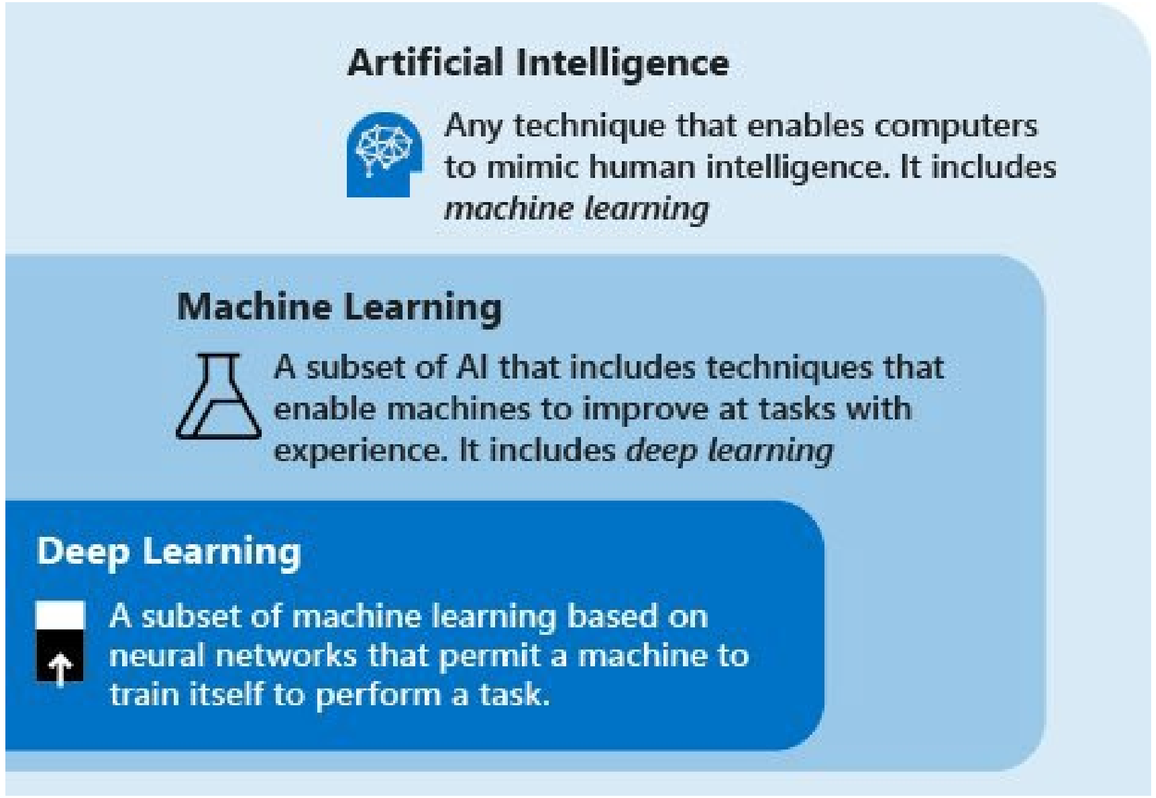

- Computer with human intelligence:
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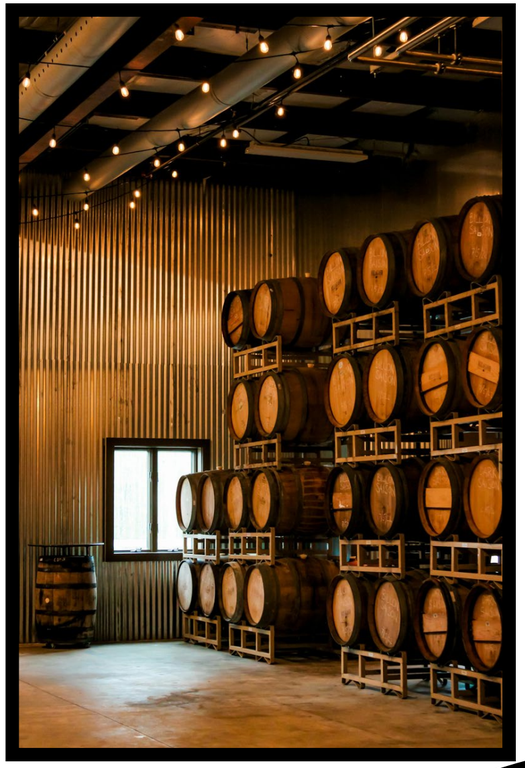
- Everyday examples you may already use without calling it “AI”

After hearing examples

- Do these address your problems?
- What ways do you see using AI?
- Beyond AI: How do you optimize operations?
- What keeps you up at night?



Thank You

Before you leave!

Kindly fill out the forms to indicate your preferred method of receiving updates and additional information from BEACON and Salisbury University about AI in Hospitality.