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UNIVERSITY OF SOUTH CAROLINA

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CSCE 580: Introduction to AI
CSCE 581: Trusted AI

Lectures 28 and 29: Course Project Final Presentations

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5TH AND 7TH DEC, 2023

Carolinian Creed: "I will practice personal and academic integrity."

Credits: **Copyrights of all material reused acknowledged**

Organization of Lectures 28 and 29

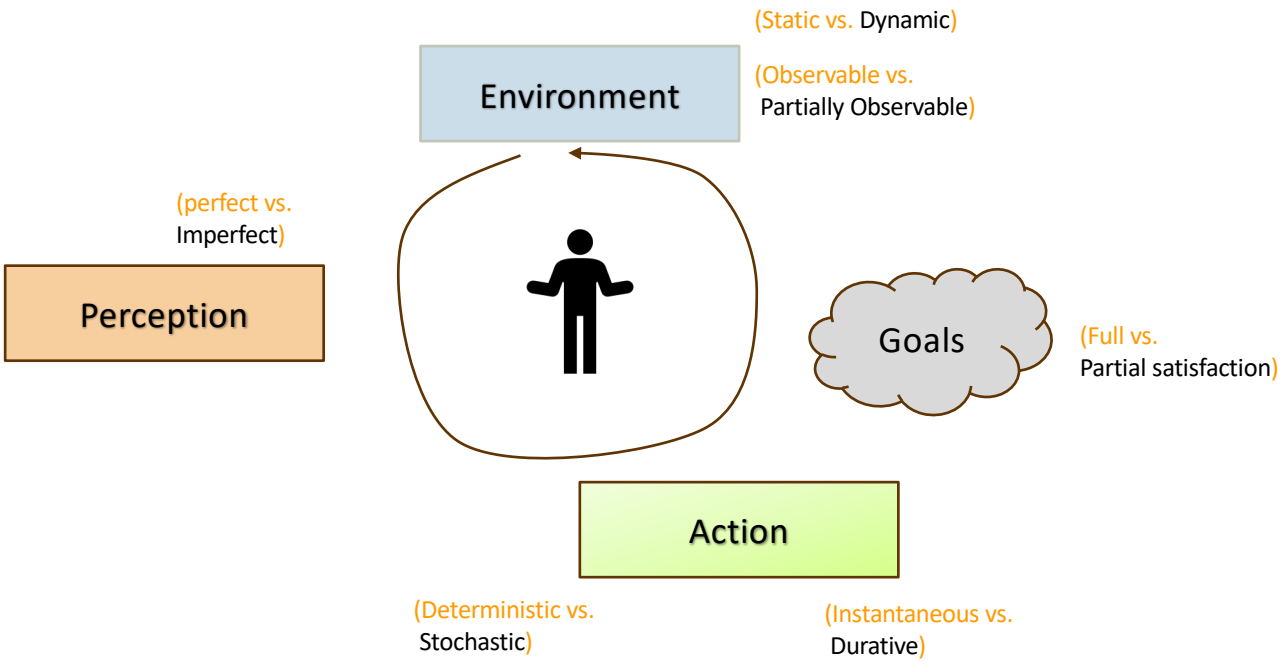
- Introduction Segment
  - Recap of Lecture 27
- Main Segment
  - Course Project Presentation
- Concluding Segment
  - Ask me anything

Introduction Section

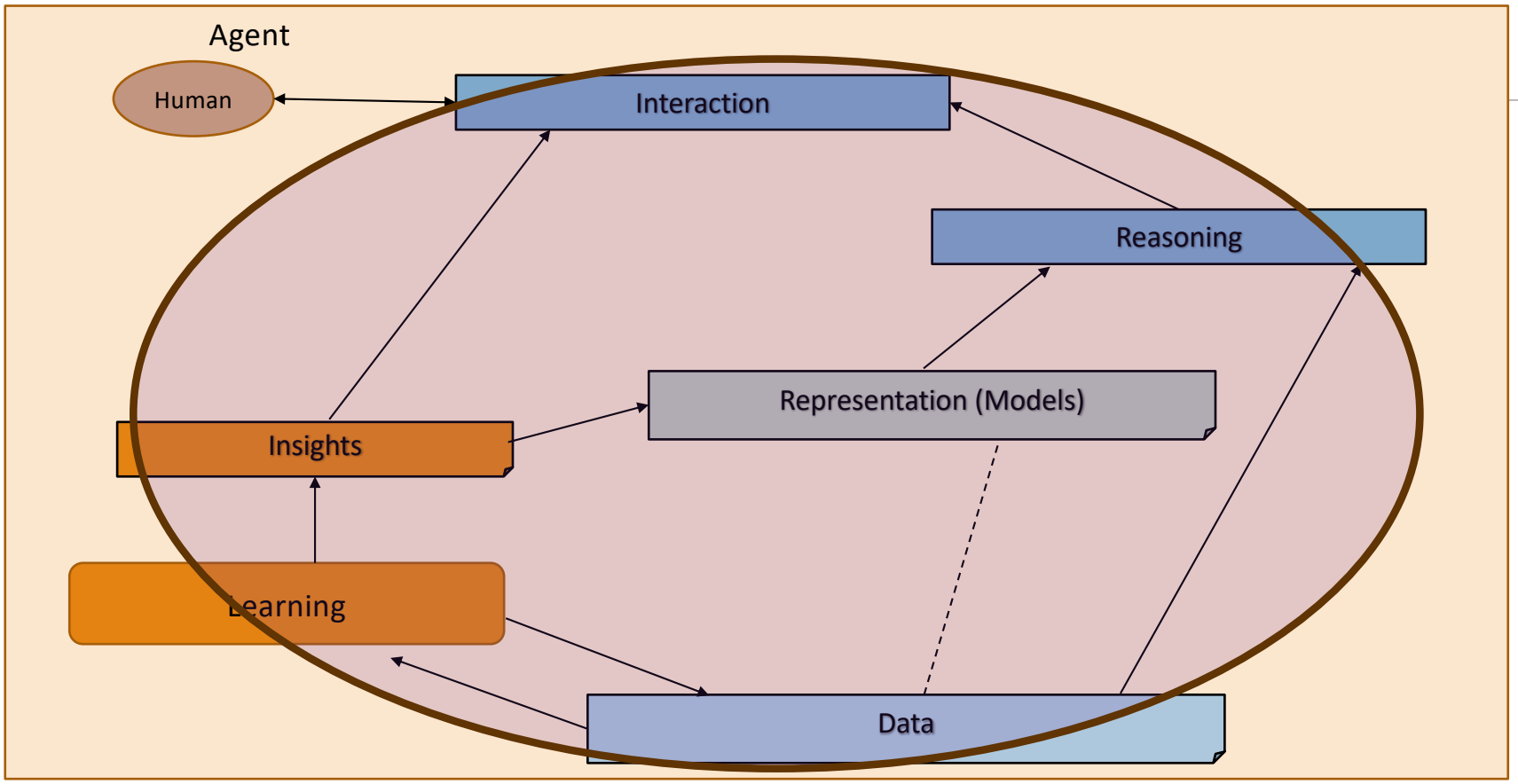
Recap of Lecture 27

- Topic discussed
  - Real world problems
  - Smart city – setting goals for improvement
  - Framework for identifying opportunities to solve problems with AI
  - Case studies in smart city (traffic, public health) and business (Clarity - business intelligence, ULTRA – team recommendation)

Intelligent Agent Model



Relationship Between Main AI Topics



Where We Are in the Course

CSCE 580/ 581 – In This Course

- Week 1: Introduction, Aim: Chatbot / Intelligence Agent
- Weeks 2-3: Data: Formats, Representation and the Trust Problem
- Week 4-5: Search, Heuristics - Decision Making
- Week 6: Constraints, Optimization – Decision Making
- Week 7: Classical Machine Learning – Decision Making, Explanation
- Week 8: Machine Learning - Classification
- Week 9: Machine Learning - Classification – Trust Issues and Mitigation Methods
- Topic 10: Learning neural network, deep learning, Adversarial attacks
- Week 11: Large Language Models – Representation, Issues
- Topic 12: Markov Decision Processes, Hidden Markov models - Decision making
- Topic 13: Planning, Reinforcement Learning – Sequential decision making
- Week 14: AI for Real World: Tools, Emerging Standards and Laws; Safe AI/ Chatbots

Main Section

Credit: Retrieved from internet

Reference: Project Rubric - NEW

- **Project report** – 60%
  - Project description: problem, related work, approach, evaluation – 40%
  - Working system demo/ video – 10%
  - Well organized Github with code (./data, ./code, ./docs, ./test) – 10%
- **Project presentation** – 40%
  - Evaluation by peers, instructor and TA
- **Bonus**
  - Instructor discretion – 10%
- **Penalty**
  - Lack of timeliness as per announced policy (right) - up to 30%

Milestones and **Penalties**

- Oct 12, 2023
  - Project checkpoint
  - In-class presentation
  - **Penalty: presentation not ready by Oct 10, 2023 [-10%]**
- Nov 30, 2023
  - Project report due
  - **Project report not ready by date [-10%]**
- Dec 5 / 7, 2023
  - In-class presentation
  - **Project presentations not ready by Dec 4, 2023 [-10%]**

Evaluation of Project Presentation

1. An online form will be available during presentation
2. During a presentation, three students will be assigned to review along with instructor and TA
3. They will enter following survey questions:
    1. Their name
    2. Presentation number
    3. How useful is the system – will you use it? [1-5 scale]
    4. How well have you understood the project from the presentation? [1-5 scale]
4. Top and bottom scores will be removed. Average of remaining three will be used for final presentation marks

Lecture 28 and 29: Summary

- We talked about
  - A wide variety of projects

Concluding Section

Student Assessment

A = [900-1000]
B+ = [870-899]
B = [800-869]
C+ = [770-799]
C = [700-769]
D+ = [670-699]
D = [600-669]
F = [0-599]

Tests	Undergrad	Grad
Course Project – report, in-class presentation	600	600
Quiz – best of 3 from 4	200	200
Final Exam	200	100
Additional Final Exam – Paper summary, in-class presentation		100
Total	1000 points	1000 points

How Final Grade is Calculated

- Maximum marks of each component is marked in []
- Then overall score is found by weighing as per assessment table
  - Project: (report marks [out of 60] + presentation marks [out of 40] + bonus/ penalty [range: -30,10]) * 6 // 60% weightage
  - Quiz: (best of 3) [out of 300] * 2/3 // 20% weightage
  - Final marks: * 2 // 20% weightage
    - Graduate: presentation [out of 100] + report [out of 100]
    - Undergraduate: participation [out of 50] + report [out of 150]
- Total marks [out of 1000]
- Grade assigned based on previous slide