Human-Centered AI and Accessibility

Course Title: Advanced Topics in Responsible Artificial Intelligence
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What is Human-Centered AI?

An approach to artificial intelligence that prioritizes human values, needs, and experiences in the design and deployment of AI systems.

Focuses on how AI can augment humans, rather than how they might replace them

Takes a more empirical approach rather than rational to the development of AI

Goals of HCAI:

1. **User-Centric Design**
2. **Complementary Design**
3. **Ethical Development**
4. **Adaptability**

What is Accessibility?

Accessibility refers to the design of products, devices, services, or environments so that they are usable by Disabled people*

Focuses on eliminating barriers and ensuring equal access to Disabled people

Goals of accessibility:

1. **Inclusivity**
2. **Standards and Compliance**
3. **Assistive Tools and Technologies**
4. **Identifying and Removing Barriers**

Accessible AI vs AI for Accessibility

AI for Accessibility - utilizing AI to create technology that can be used to increase accessibility

- Sounds detection mobile app for deaf users
- Live transcription technology

Accessible AI - Designing AI systems that can be used by anyone, regardless of ability

- Chatbot that can utilize multiple input methods
- Educational tools with multi-modal content delivery

Differences

	HCAI	Accessibility
Focus	Improving AI systems for all users	Specifically addresses the needs of Disabled users
Scope	Wide range of considerations not limited to users with disabilities	Narrowly focused on ensuring access for Disabled people
Methods and Standards	Involves research in HCI, UX design and ethical AI practices	Specific guidelines and standards to ensure compliance and inclusivity

Similarities

- Both prioritize user-focused design
- Emphasize ethical considerations
- Aim to improve quality of life
- Involve continuous learning and adaptation

Is Human-Centered AI also Accessible?

Current focus is on making AI intuitive for humans, but doesn't always take into account how intuition varies between people of different abilities and neurodiversities

The interactions studied in the development of AI need to be diverse and inclusive

What happens if we bring accessibility to the forefront of human-centered AI?

- E.g. Brain-computer interfaces (BCIs)

Suggestions for Accessible Human-Centered AI

- Inclusive Design
- Adherence to Standards
- Education and Awareness
- Collaboration with Diverse Users
- Ethical and Inclusive AI Training Data

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