AI at PCC

Unlocking the Power of Artificial Intelligence in Education, Industry, and Everyday Life

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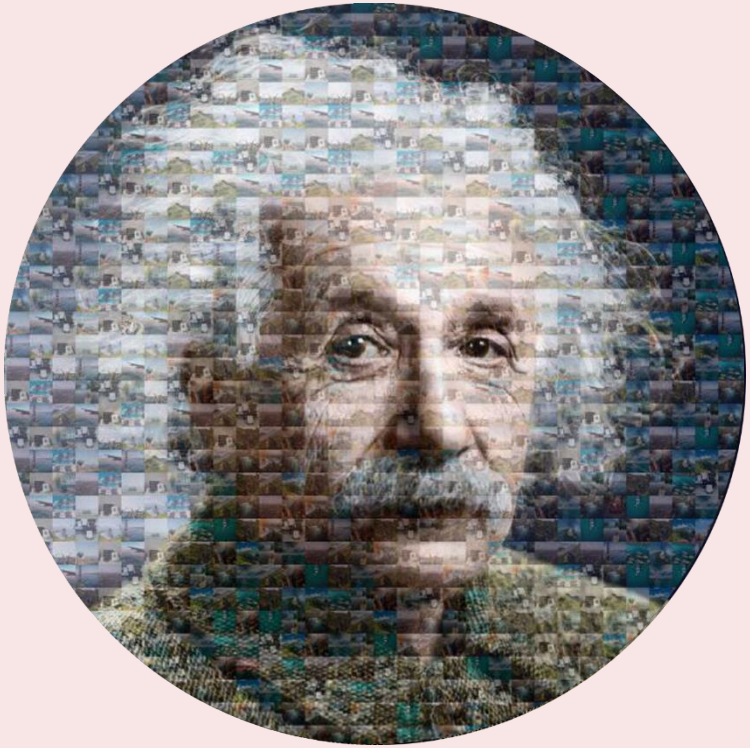
21 Learning Applications

1. **Access to Resources:** AI-driven search engines can help students find relevant academic resources.
2. **Accessibility:** AI can make learning more accessible for students with disabilities through text-to-speech and speech-to-text capabilities.
3. **Automated Essay Writing:** AI can help students generate high-quality essays and research papers quickly.
4. **Automated Grading:** Professors can use AI for grading assignments and providing instant feedback.
5. **Citation Assistance:** AI tools can assist in creating accurate citations and bibliographies.
6. **Content Generation:** AI can create content for student projects and presentations.
7. **Data Analysis:** AI can aid in data analysis for research projects and experiments.

21 Learning Applications

8. **Homework Help:** AI-powered tutors and chatbots can provide assistance with homework questions and problem-solving.
9. **Innovation and Creativity:** AI can inspire creative thinking by generating novel ideas and concepts.
10. **Language Learning:** AI can provide language learners with conversational partners and pronunciation correction.
11. **Language Translation:** AI translation tools can assist in understanding foreign language texts and documents.
12. **Math Problem Solving:** AI can assist in solving complex mathematical problems and equations.
13. **Mentoring:** AI mentors can offer career guidance and help with academic decision-making.
14. **Note-taking Assistance:** AI can summarize lecture notes and suggest additional readings.

21 Learning Applications



15. **Personalized Learning Paths:** AI can create custom learning paths based on a student's strengths and weaknesses.
16. **Plagiarism Detection:** AI tools can identify and help avoid unintentional plagiarism in students' work.
17. **Research Assistance:** AI can help students discover relevant research papers and articles.
18. **Study Aids:** AI-driven flashcard and study guide generators can aid in exam preparation.
19. **Summarization:** AI can summarize lengthy texts, making it easier to grasp key points.
20. **Time Management:** AI-powered scheduling and productivity apps can help students manage their time more effectively.
21. **Tutoring:** Virtual AI tutors can provide personalized instruction and help students understand complex subjects.

GenAI Software

- Audio
- Code
- Design
- Health and Wellness
- Images
- Large Language Models / Chatbots
- Maps and Navigation
- Presentations
- Productivity
- Research / Education
- Text / Writing
- Urban and Regional Planning
- Video

AI Considerations

- Accountability and Responsibility
- Bias and Fairness
- Curriculum Integration
- Cybersecurity
- Emergency Protocols
- Ethical Use (including plagiarism)
- Exploitation
- Informed Consent
- Hallucinations and Misinformation
- Pedagogical Goals
- Privacy and Data Considerations
- Transparency and Explainability

The Reality Continuum

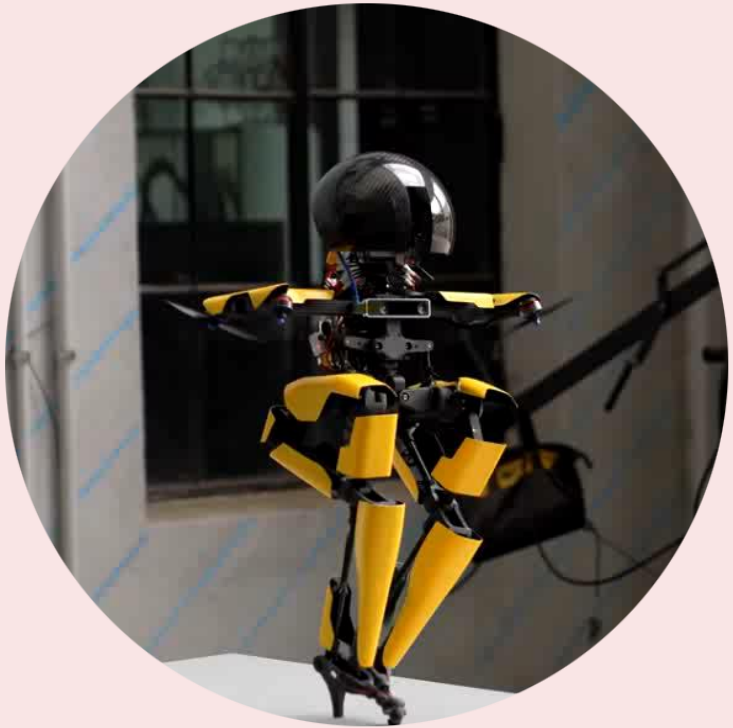
Physical Reality

Extended Reality (ER)

- **Augmented Reality (AR)**
- **Mixed Reality (MR)**
- **Virtual Reality (VR)**

https://www.flickr.com/photos/ricstephens/52782323130/in/datetaken/

Bots and Droids



- Turing & Ebert Tests
- The Uncanny Valley
- Autonomy

https://www.youtube.com/watch?v=DhpMll8jb5o&t=9s

NASA Dragonfly

- **Dragonfly** Titan, 2034
- **Astrobiology**
- **New Frontiers**

https://dragonfly.jhuapl.edu/What-Is-Dragonfly/

Resources

- AI Glossary (digital literacy)
- AI Timeline (tech and culture)
- ChatGPT (LLMs) and AI-Generated Content (PCC class)
- Generative AI Software Programs (200+)

- Ric Stephens Instructor | Advanced Air Mobility, Generative AI, Smart Eco-Cities | Portland Community College, South Dakota State University, University of Oregon

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Thank you for your time and interest.