Uniting Tradition & Technology:

Humanistic AI in South African Education

Achieving the Dream

Saide
Enabling successful
open learning for all

THE
KRESGE
FOUNDATION
EST. 1924

Siyaphumelela
we succeed

Achieving
the Dream

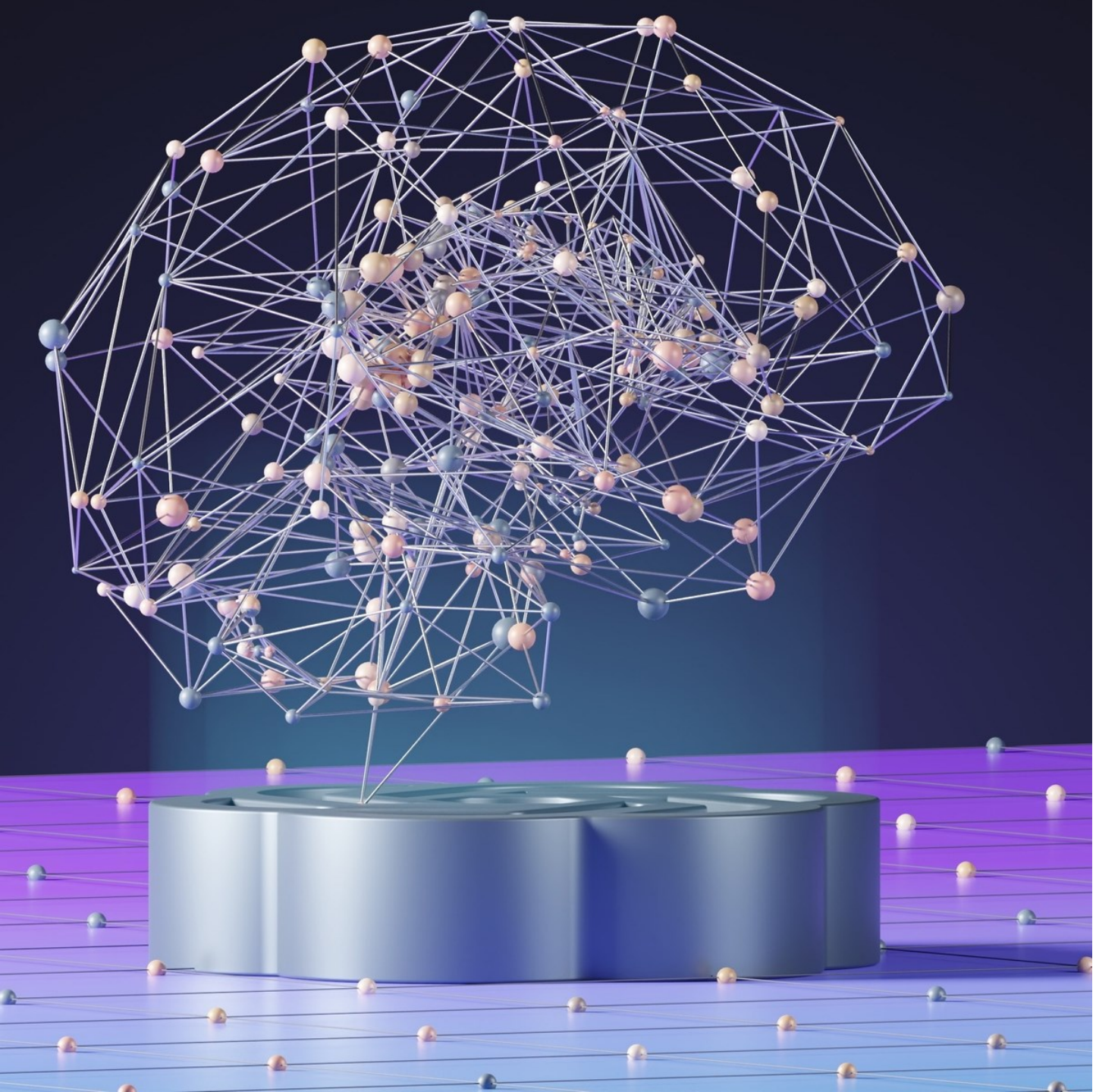
Technology & Humanity

Achieving the Dream

Indigenous Knowledge Systems

Three Guiding Principles

- **The purpose of AI is to augment human intelligence, not replace it.**
- **Data and Insights belong to their creator.**
- **AI Systems must be transparent and explainable**



You Belong in AI

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Diversity Prediction Theorem: Wisdom of the Crowds?

If the diversity of the group is large, the error the error of the crowd is small.

$$(c-\theta)^2 = \frac{1}{n}\sum_{i=1}^{n}(s_i-\theta)^2 - \frac{1}{2}\sum^{n}(s,-c)^2$$

c = crowd, s_i = Individual i's prediction, θ = truth

We need diversity to have accuracy

SUPER
Legos

We Need

- Multi-disciplinary
- Growth Mindset
- Contribute Multiple perspectives

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We Need To

- Measure what matters
- Incentivize behaviors we want to see
- Build independent thinkers

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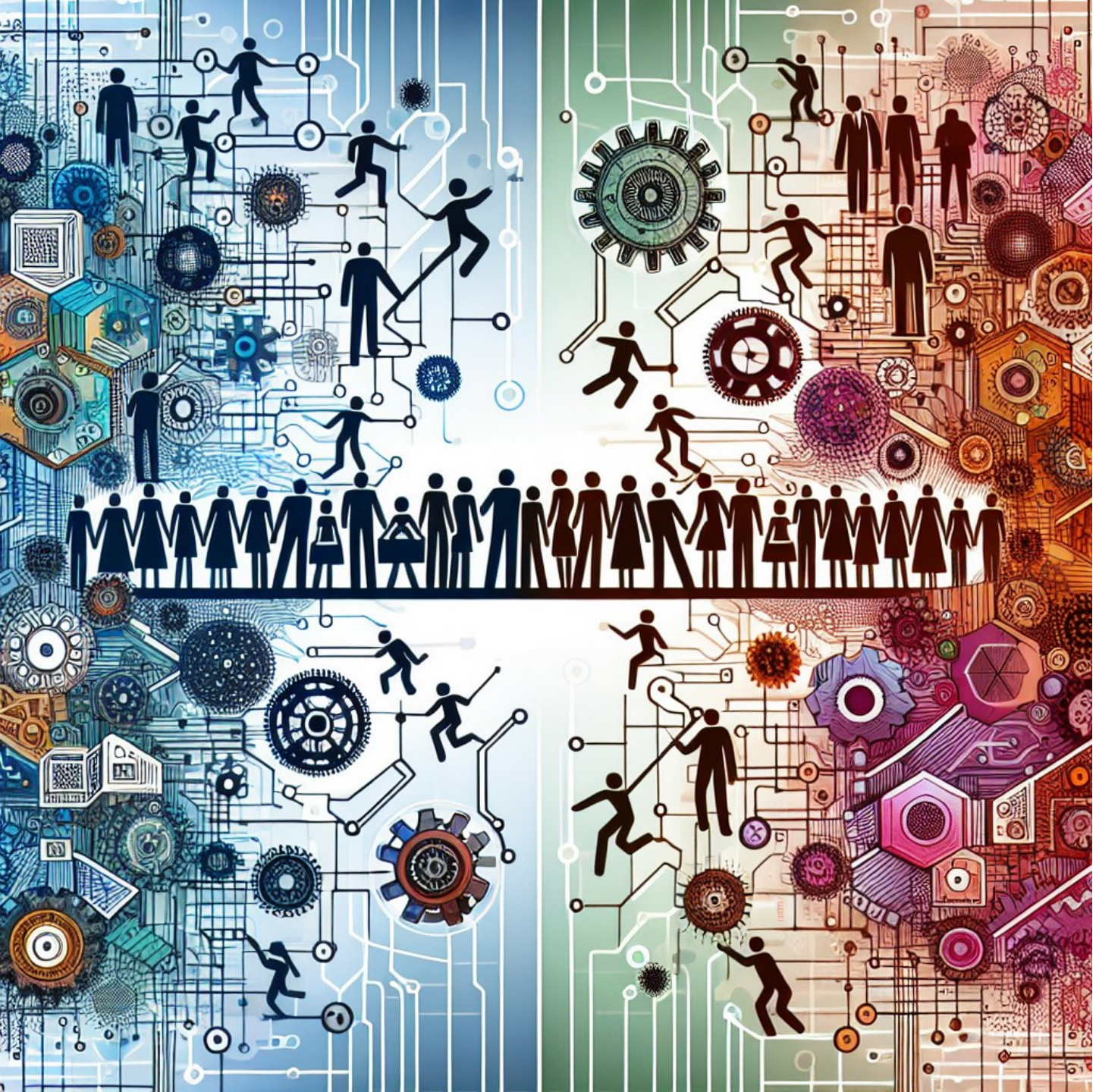
Data is a Human Artifact

- Culture
- Identity
- Community

Open Data Sets



Trust is
Social and Technical

Trust is Social and Technical

1. **Stay Informed:** Understand the privacy policies of AI tools you use. Know what dat being collected, how it is used, and what control you have over it.

2. **Use Privacy Settings:** Actively manage the privacy settings on applications and platforms to control the amount of personal data you share.

3. **Opt for Privacy-Enhanced Tools:** Whenever possible, choose tools that offer enhanced privacy features, such as end-to-end encryption or data anonymization.

4. **Give Informed Consent:** Only provide your data where informed consent is clear, a you understand the implications of your data use.

5. **Advocate for Transparency:** Support and advocate for transparency in how AI systems are developed and how they use data, ensuring accountability from developers and companies.

The promise of AI is hyper-personalization - what does that look like?

Thandi

AI POWERED TECHNOLOGICAL ECOSYSTEMS

Georgia State University (GSU)

Predictive Analytics and AI Advising

Arizona State University (ASU)

AI-Powered Tutoring and Virtual Assistants

Stanford University

AI Powered Personalized Learning for medical students

Deakin University (Australia)

Genie Virtual Assistant

Homework Apocalypse

- Baseline knowledge is critical
- Expertise is imperative
- Training is important
- Education is more important than ever

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TWO APPROACHES

Return to Basics

- Increasing In Class Activities
- Direct Assessments (Observable)
- Low stakes testing

Transformative Approach

- Teachers use AI to assist in course design
- Students use AI to assist their learning
- Teachers & Students create personalized interactive learning experiences

COMMON USES

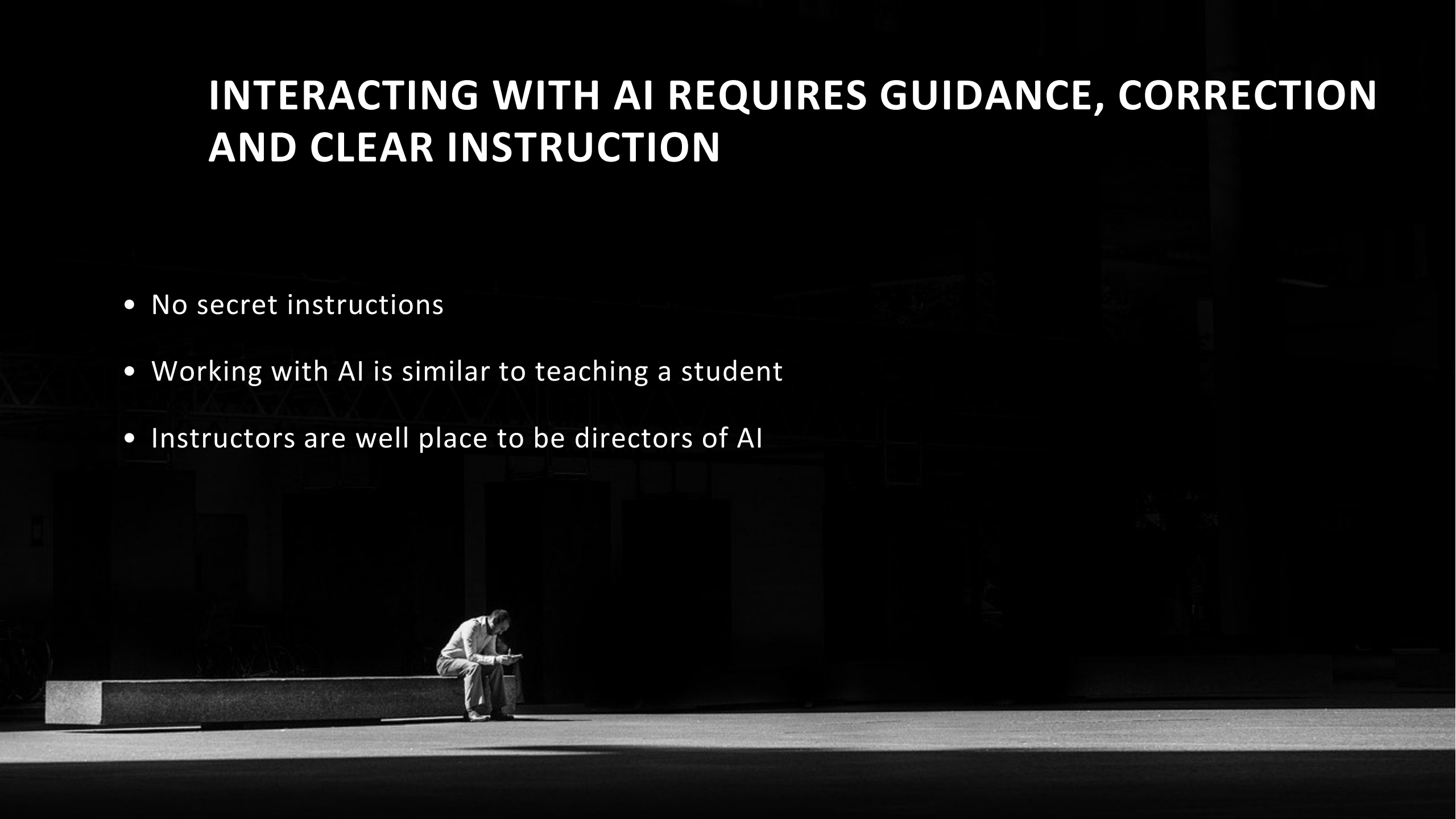
- Syllabus Creation
- Generate Quiz Questions
- Generate Active Learning Activities
- Authentic Assessments
- Co-Create OERs

LESS COMMON

- Interactive Simulators deployed to students
- Teaching the AI as a Student Exercies
- Practice Negotiation and Get Feedback

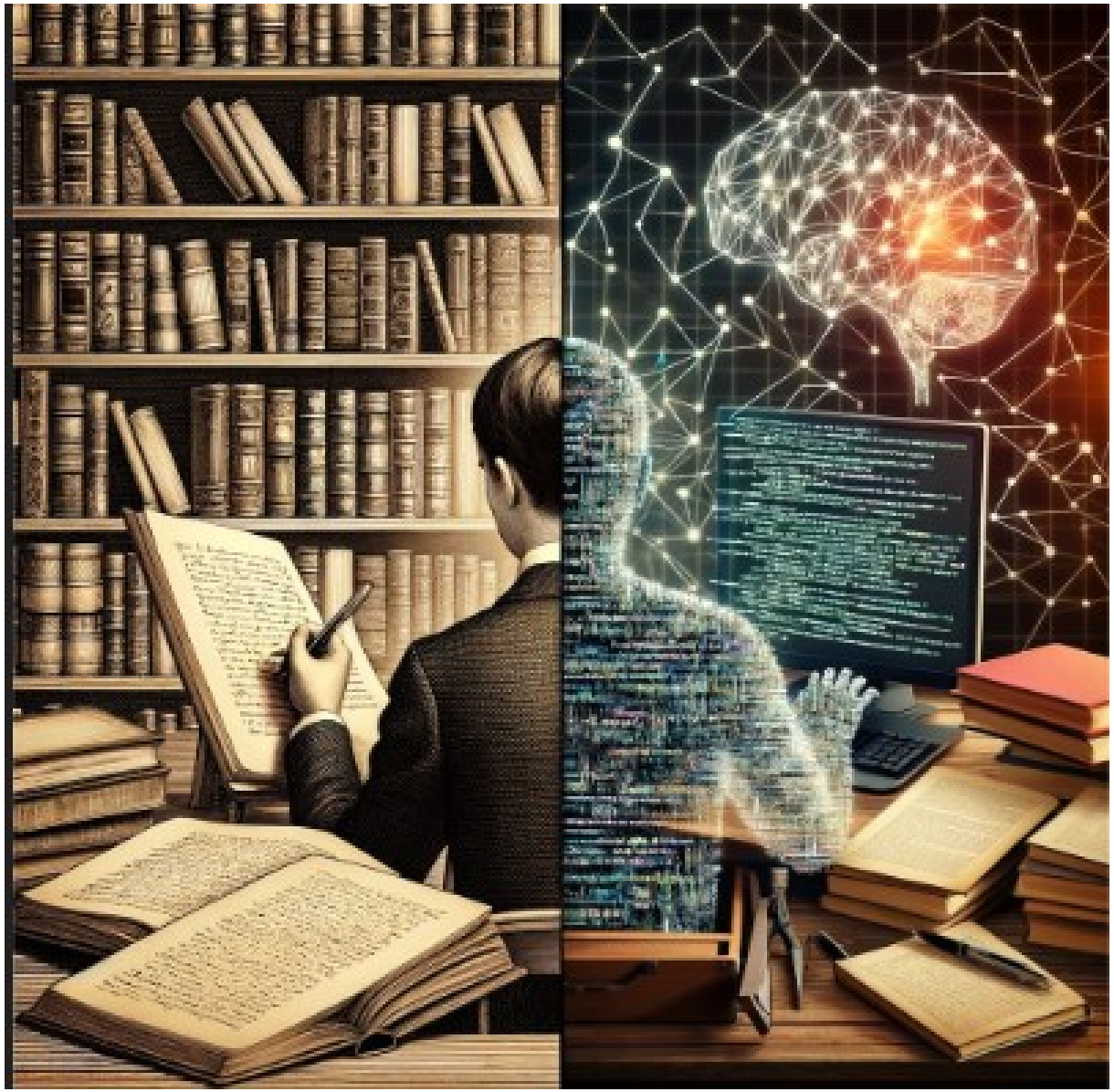
INTERACTING WITH AI REQUIRES GUIDANCE, CORRECTION AND CLEAR INSTRUCTION

- No secret instructions
- Working with AI is similar to teaching a student
- Instructors are well place to be directors of AI



We Have Agency

- Experiment: What will you create?
- Interrogate: Validate its impact?
- Share: Where will you share it?



- How do we create opportunities for productive struggle?
- How do we instill a sense of ethics and integrity in our students?

AI Fluency Across Disciplines

What does AI fluency mean fo
an artist?

A lawyer?

- IQ: Intelligence

  an person's cognitive abilities and problem-solving skills

- EQ: Emotional Intelligence

  a person's ability to understand, use, and manage their own emotions in positive ways to relieve stress, communicate effectively, empathize with others, overcome challenges, and defuse conflict.

- AQ: Adaptability

  an person's ability to adjust to new conditions, overcome challenges, and manage change effectively in both personal and professional settings.

How Students Use AI to Design Solutions for Their Community

SPONSORED CONTENT FROM DIGITAL PROMISE

By Anni Kumar Apr 24, 2023

YouthMADE Festival New Dehli

Community colleges expand workforce pathways to AI jobs in the Innovation Economy

Community colleges and Intel have partnered to create AI education and workforce offerings to help diversify the emerging tech workforce.

BLOG POST

Thirty-one community colleges in eighteen states have partnered with Intel to expand AI education with efforts to expand to all fifty underway.