

# Back to *AI, Faith, and the Future*

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Mike Langford, and David Wicks

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Seattle Pacific University  
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## AI, FAITH, *and* THE FUTURE

*An Interdisciplinary Approach*



## PART I: FOUNDATIONS

- 1 Introduction  
Michael J. Paulus Jr.
- 2 An Introduction to Artificial Intelligence  
Carlos R. Arias
- 3 *What's So Artificial and Intelligent about Artificial Intelligence? A Conceptual Framework for AI*  
Rebekah L. H. Rice
- 4 *A Theological Framework for Reflection on Artificial Intelligence*  
Michael D. Langford

## PART II: EXPLORATIONS

- 5 *Artificial Intelligence and Theological Personhood*  
Michael D. Langford
- 6 *Reinforcement in the Information Revolution*  
Phillip M. Baker
- 7 *21st Century Learning Skills and Artificial Intelligence*  
David Wicks and Michael J. Paulus Jr.
- 8 *Automation and Apocalypse: Imagining the Future of Work*  
Michael J. Paulus Jr.
- 9 *Sin and Grace*  
Bruce D. Baker

The screenshot shows the Seattle Pacific University Library Digital Commons website. The header includes the Seattle Pacific University Library logo and the text 'Digital Commons @ SPU'. The main content area is titled 'FACULTY OPEN ACCESS BOOKS' and features a book titled 'AI, Faith, and the Future'. The book is authored by Michael J. Paulus Jr. (Seattle Pacific University) and Michael D. Langford (Seattle Pacific University). A 'Download' button is visible for the 'Front Matter and Index (2.4 MB)'. Below the book information, there are sections for 'Buy this Book' and 'PLUMX METRICS'. The 'Chapters' section lists the following items:

- PART I: FOUNDATIONS
- 1 *Introduction* by Michael J. Paulus Jr.
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- 9 *Sin and Grace* by Bruce D. Baker
- Epilogue: A Litany for Faithful Engagement with Artificial Intelligence* by Bruce D. Baker

AI narratives:  
imaginary ...

From Karel Čapek's  
*Rossum's Universal  
Robots* (1921)

through *The Matrix's*  
Agent Smith (1999) ...



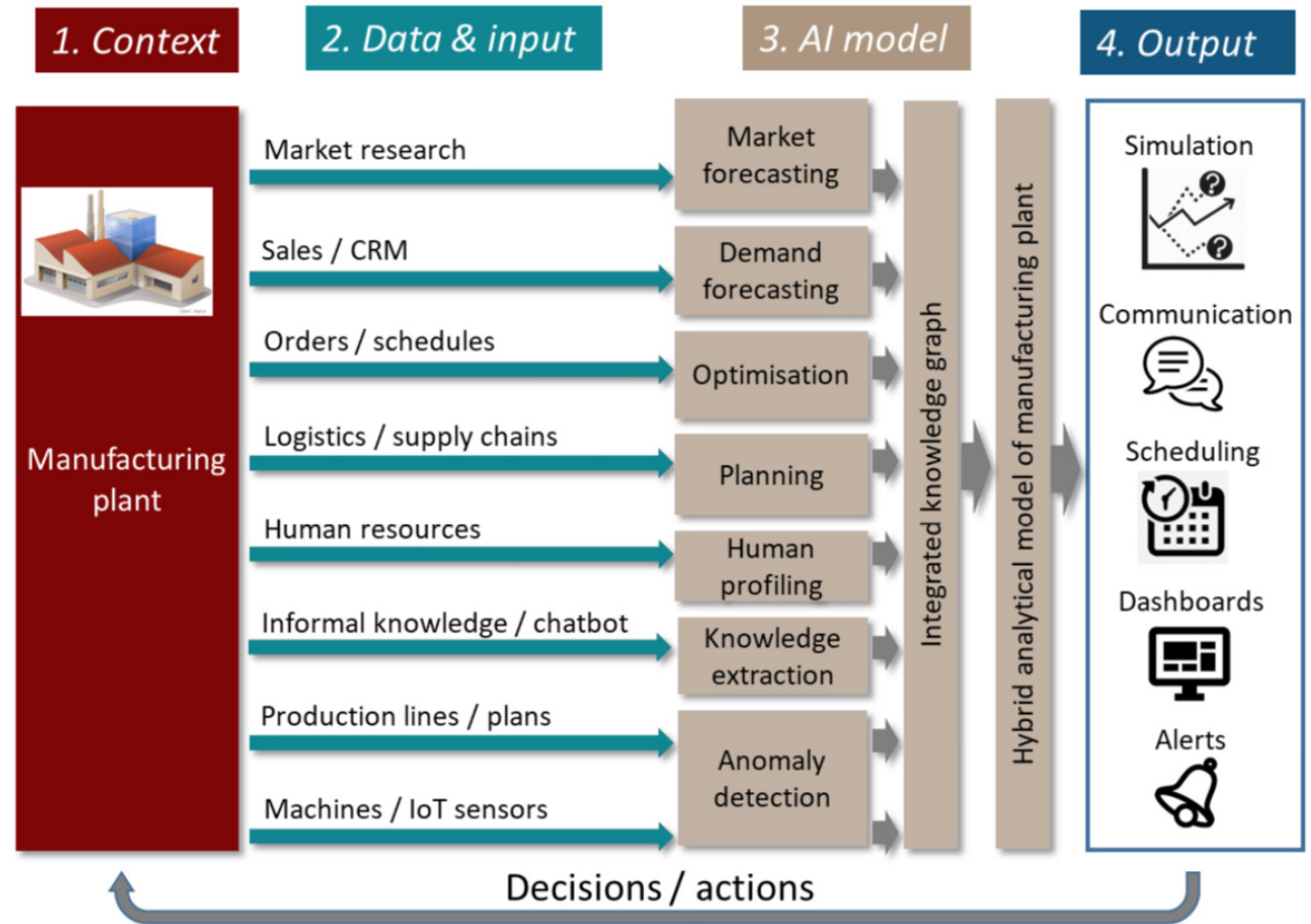
... and real

## iRobot's newest Roomba uses AI to avoid dog poop

Finally, decades of research into artificial intelligence are paying off



*The Verge*, September 9, 2021



OECD "Framework for the Classification of AI Systems"

# AGI/ASI, existential threats, and Microsoft Copilot

ANNALS OF TECHNOLOGY

## THE INSIDE STORY OF MICROSOFT'S PARTNERSHIP WITH OPENAI

*The companies had honed a protocol for releasing artificial intelligence ambitiously but safely. Then OpenAI's board exploded all their carefully laid plans.*

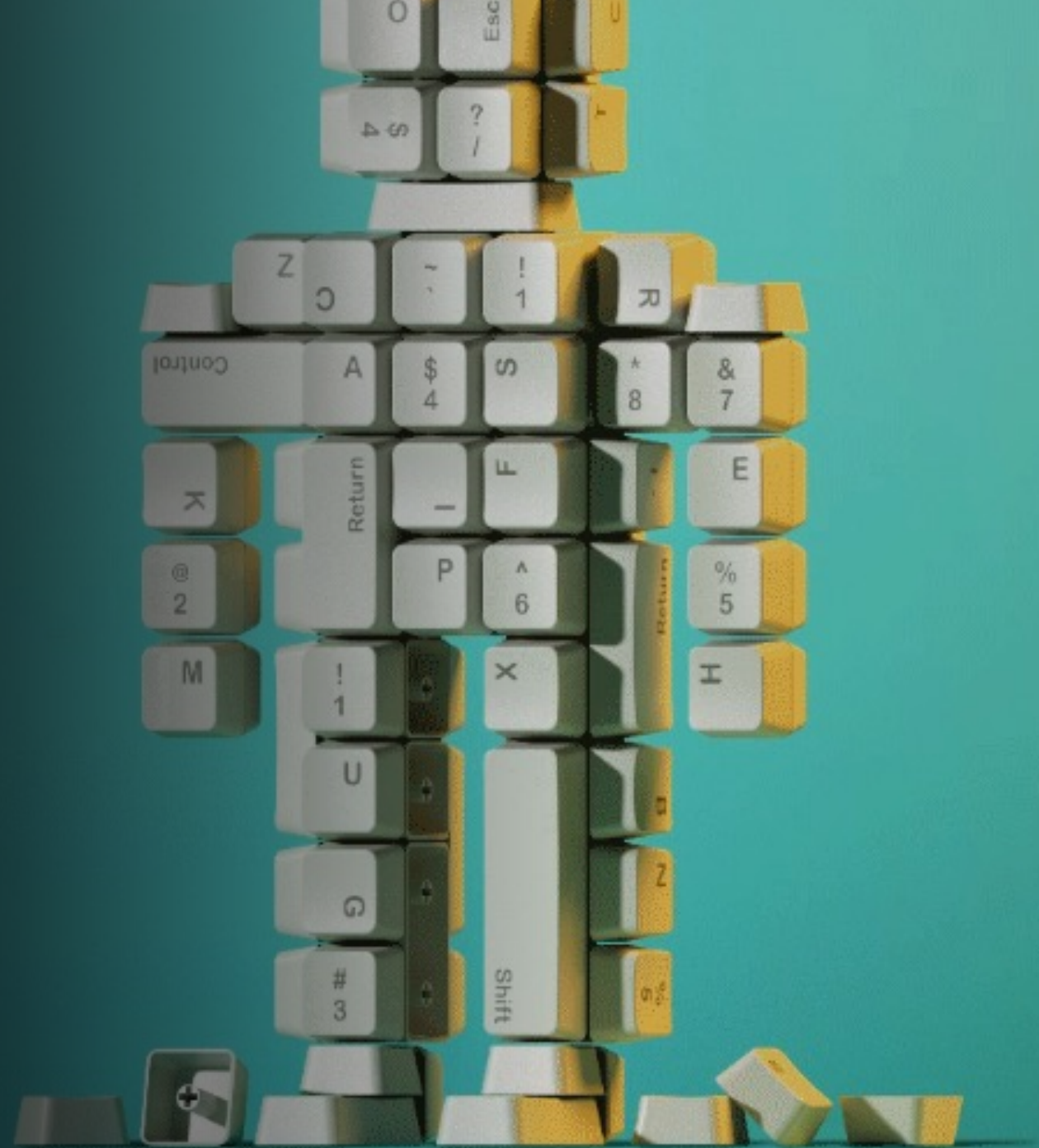
**By Charles Duhigg**

December 1, 2023



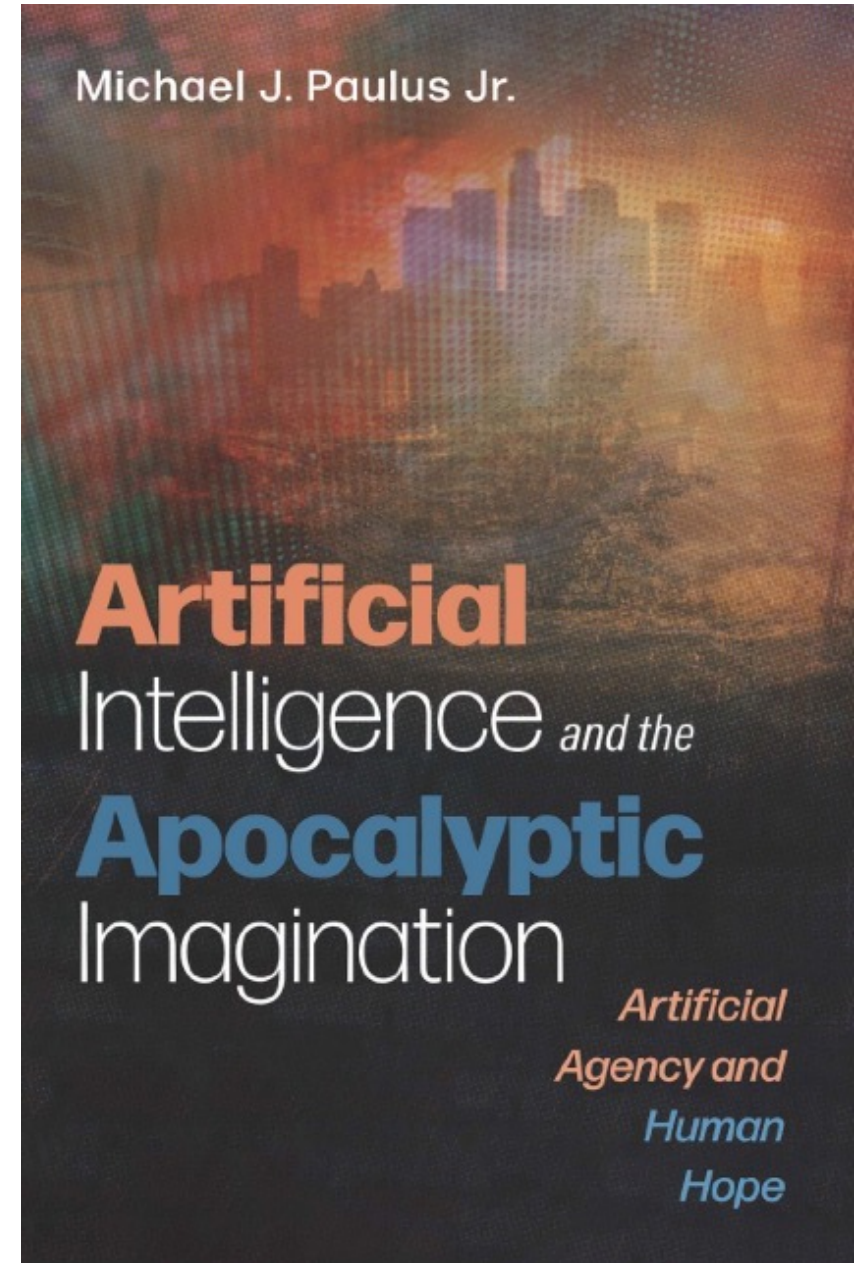
# Microsoft Copilot and the Future of AI: Exploring the Risks and Rewards of AGI/ASI

*My last slide retitled and reformatted by MS Copilot*



# A few theses

1. We are living through a unique moment – intelligent agents no longer need to be human
2. Our entanglement with technology is ancient – we shape it as it shapes us
3. The apocalyptic imagination—as it was understood by early Christians—can help us imagine and create a better world with AI

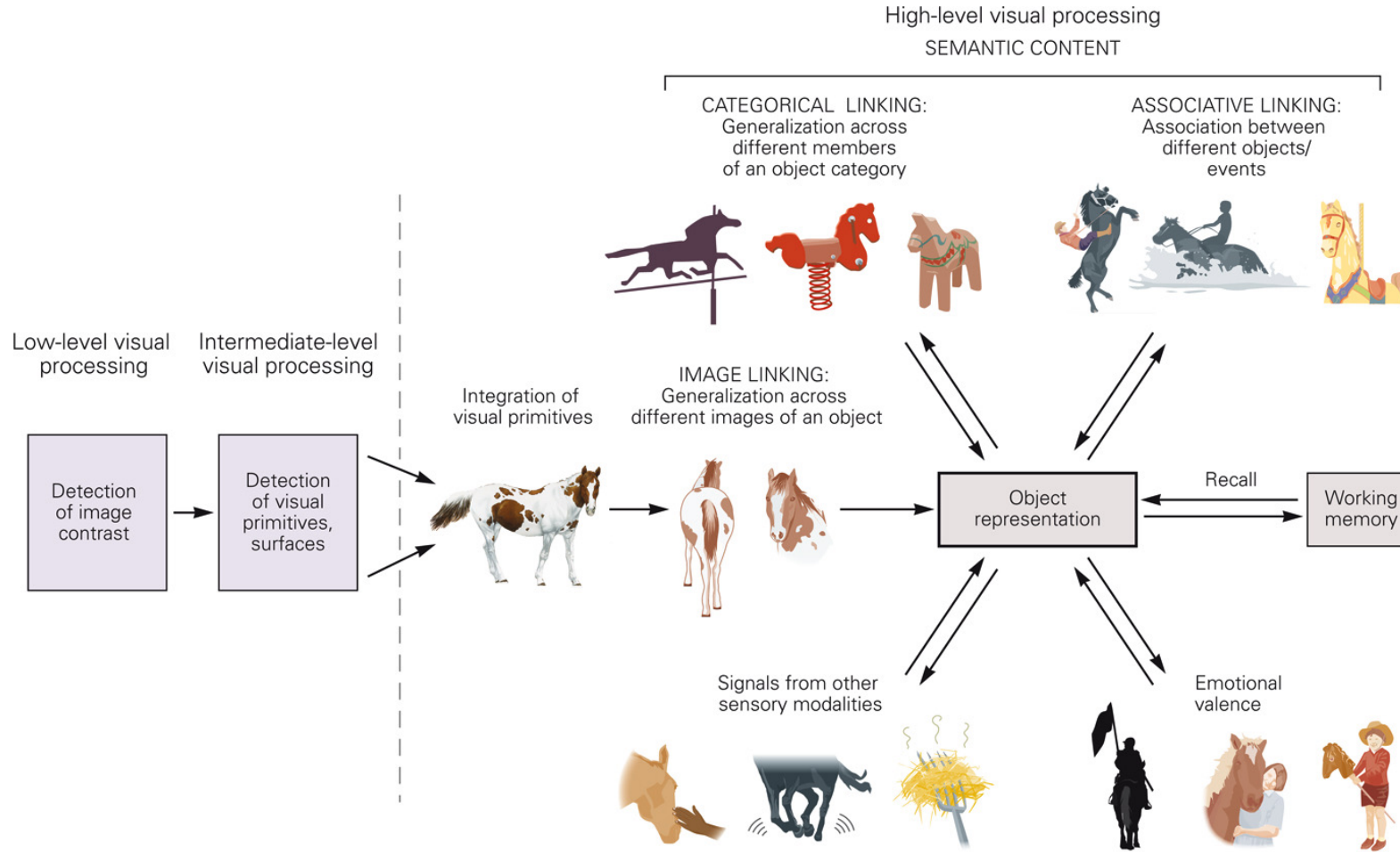


# How Free Are Our Thoughts?

And are we getting less free?



# What is a memory/thought experience?

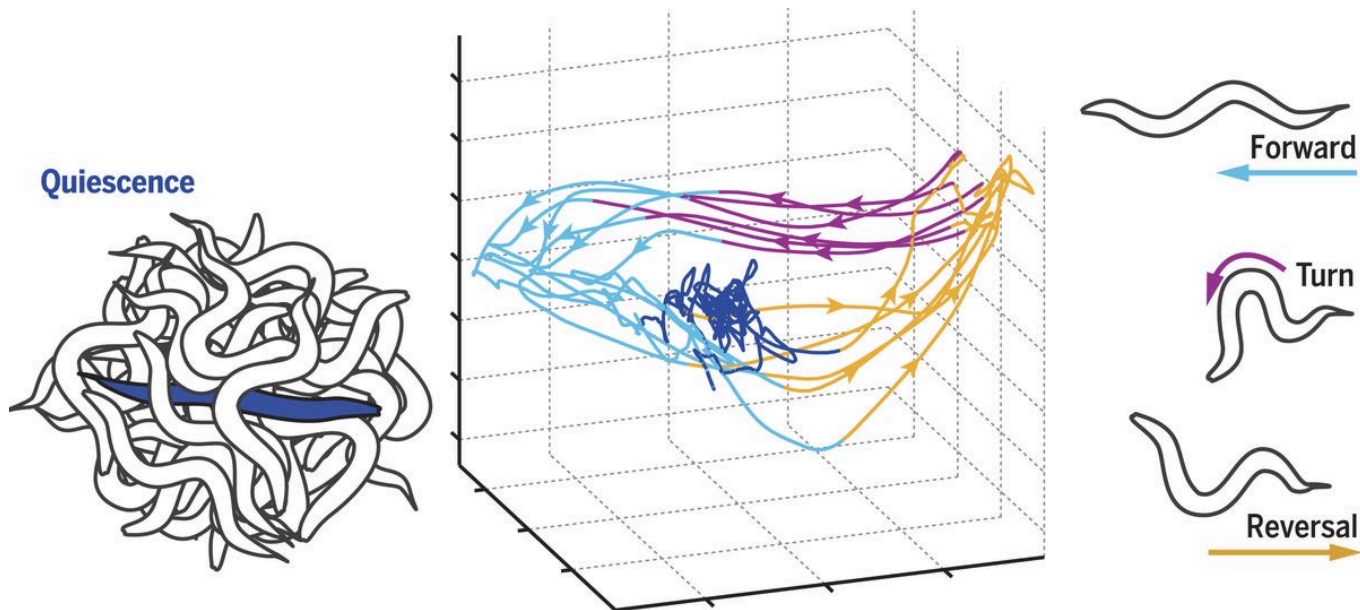


**Figure 28-1** The neuronal representation of entire objects is central to high-level visual processing. Object representation involves integration of visual features extracted at earlier stages in the visual pathways. Ideally the resulting representation is a generalization of the numerous retinal images generated by the same object and of different members of an object category.

The representation also incorporates information from other sensory modalities, attaches emotional valence, and associates the object with the memory of other objects or events. Object representations can be stored in working memory and recalled in association with other memories.

# Our past experiences strongly shape our current ones

- Sensory experience is built on prior exposures
- Most connections in our sensory systems are top down
- Memory tells us what to expect and already plans for how to act



Nichols et al, 2017



Blakemore & Cooper (1970)

# At the least, what we do is strongly influenced by our past

- What sensory and emotional experiences are shaping us?
  - Are we adapted for this?
- Who has control of our past?
  - Memories are constructed
- Who is curating our information access?
  - Newsrooms and librarians



Illustration: Eva Bee/The Observer



Divine Will  
vs.  
Human  
Freedom



- 
- Determinism vs. Free Will
  - God as authority
  - Humans as responsible



- 
- The Law
  - Kingdom of God
  - Christology



- 
- Divine Will
  - Human Freedom
  - Paradox, but the former guarantees the latter

# All Work Now Group Work

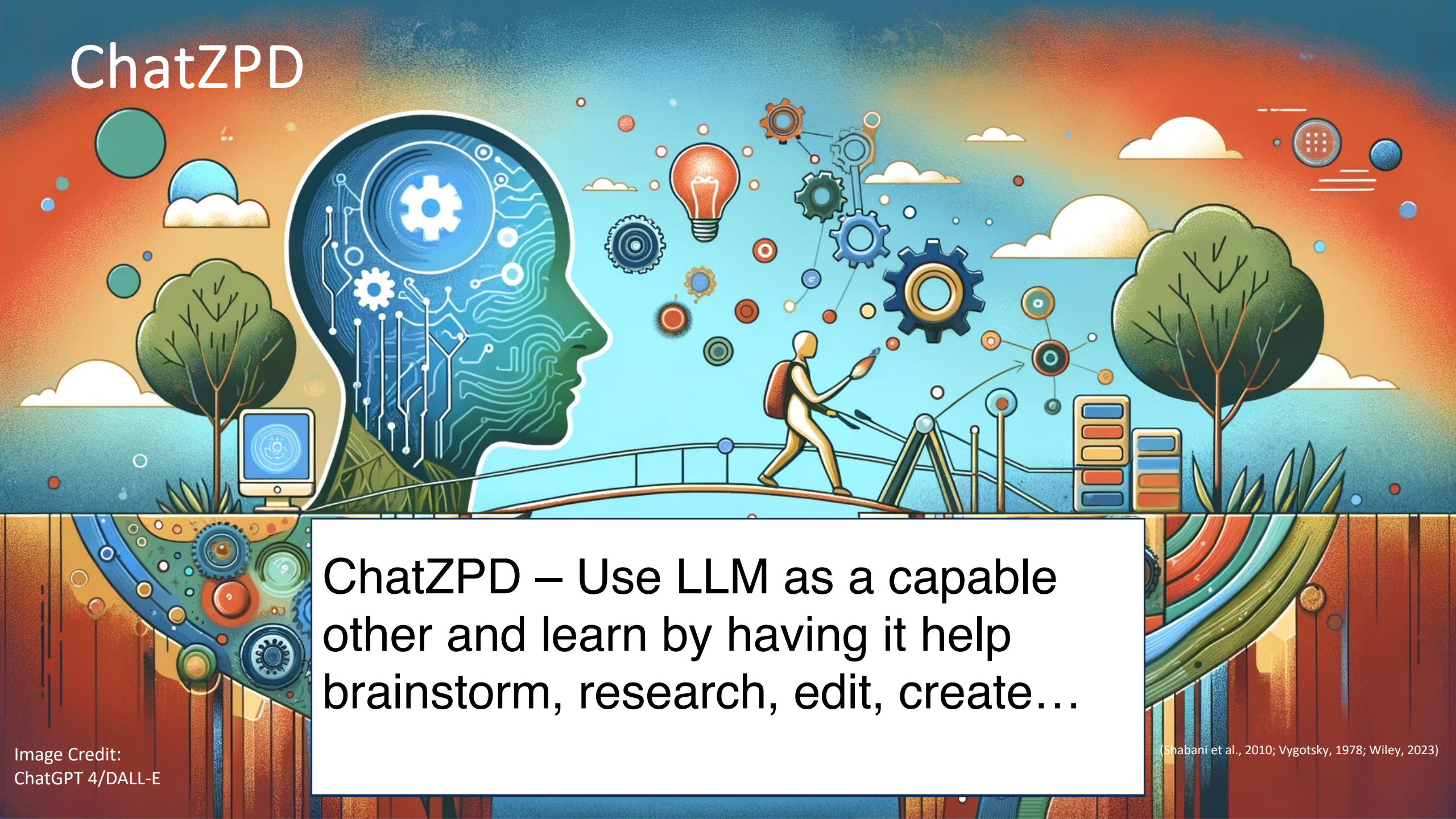
Educators question how to differentiate between student's work and AI-generated content.

Established educational processes exist that can evaluate cooperative work and are adaptable for AI-student collaboration.

Instead, what if they view generative AI as a co-author where students partner with AI to create new content and solve problems?

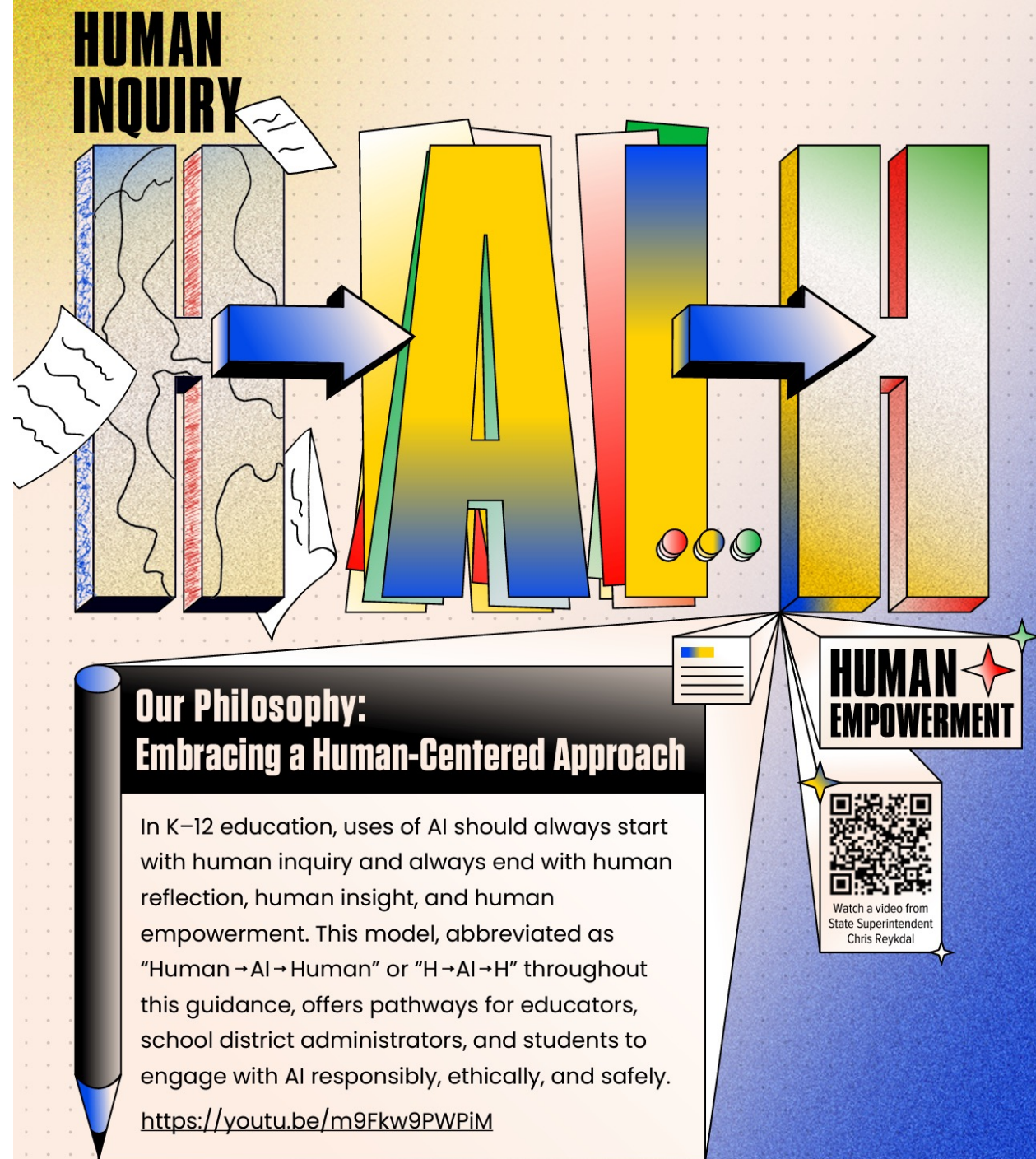


# ChatZPD

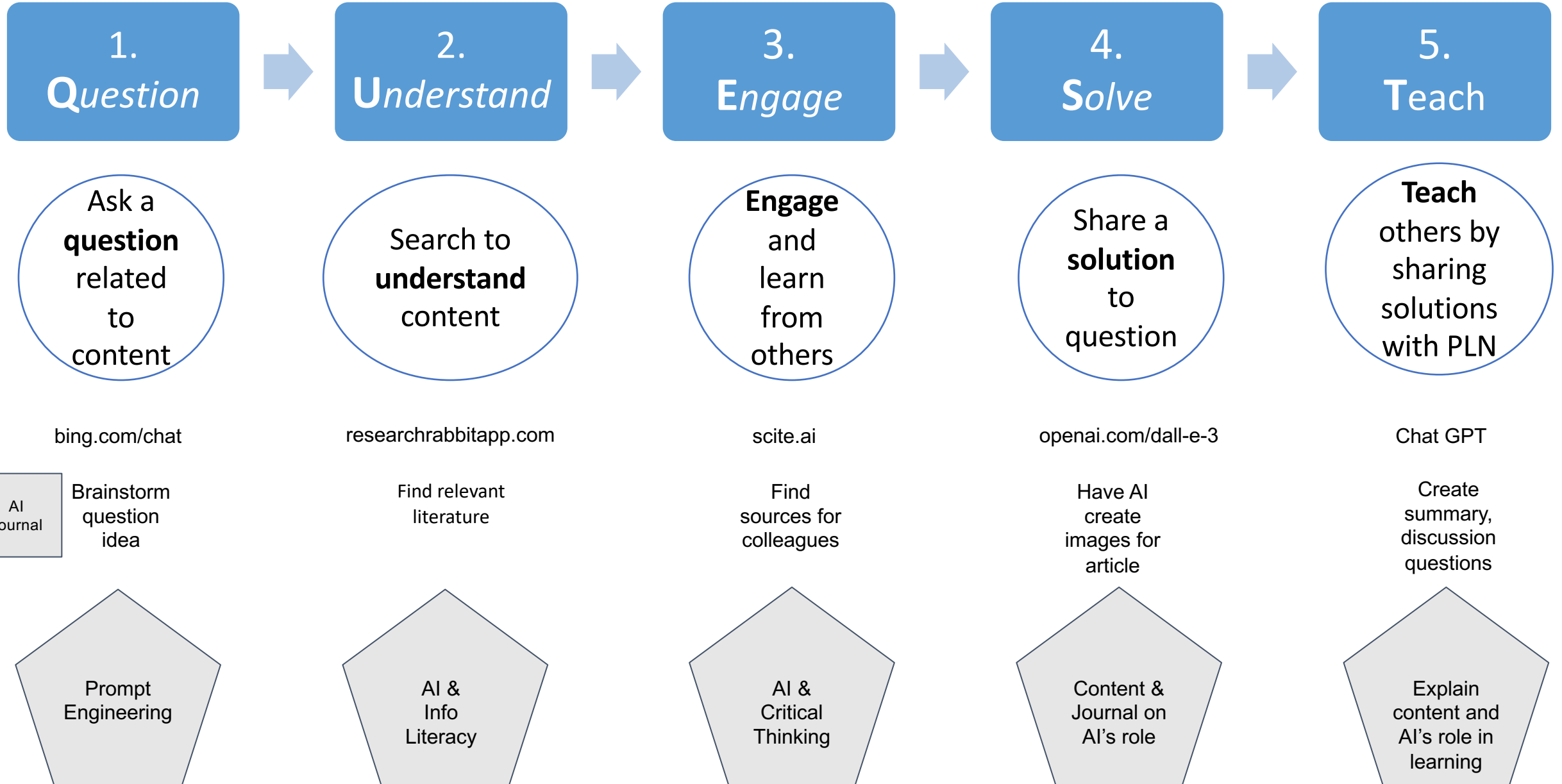


ChatZPD – Use LLM as a capable other and learn by having it help brainstorm, research, edit, create...

*Human Inquiry*  
collaborates with  
*Artificial Intelligence*  
leading to  
*Human Empowerment*



# QUEST Model for Inquiry-based Learning with AI Activities



# Step 1 Question: Use Bing Chat to brainstorm possible questions to research.

The screenshot shows the Bing Chat interface. At the top left is the Microsoft Bing logo. In the center, there are 'SEARCH' and 'CHAT' buttons, with 'CHAT' being the active one. On the right, the user's email 'dwicks@sp...' is visible next to a profile picture, a 'Protected' status indicator, and a menu icon.

The user's question is displayed in a blue bubble: "I am a teacher and want to become an instructional coach at a school district. What are some questions I could explore about communication and collaboration with coaching partners that will help me prepare for this possible job change? My goal is to show mastery on ISTE Coaching Standard 4.3.a Cultivate Coaching Relationships - Establish trusting and respectful coaching relationships that encourage educators to explore new instructional strategies."

Below the question, two green checkmarks indicate the chat's progress: "Searching for: **instructional coach communication and collaboration questions**" and "Generating answers for you...".

A white bubble contains the chat's response: "As a teacher who is considering a career change to become an instructional coach, it's great that".

At the bottom, there is a 'New topic' button, a text input field with the placeholder 'Ask me anything...', a microphone icon, a camera icon, and a character count '0/2000' with a send arrow.

As a teacher who is considering a career change to become an instructional coach, it's great that you're thinking about how to prepare for this transition. Here are some questions you could explore about communication and collaboration with coaching partners to help you show mastery on ISTE Coaching Standard 4.3.a:

1. [What are the best ways to establish trust and rapport with coaching partners<sup>1</sup>](#)
2. [How can you ensure that coaching sessions are productive and focused on the coachee's goals<sup>1</sup>](#)
3. [What strategies can you use to communicate effectively with coaching partners, especially when discussing sensitive topics<sup>1</sup>](#)
4. [How can you encourage coaching partners to reflect on their practice and identify areas for growth<sup>1</sup>](#)
5. [What are some effective ways to provide feedback to coaching partners that is both constructive and supportive<sup>1</sup>](#)

These questions are not exhaustive, but they can help you start thinking about how to communicate and collaborate effectively with coaching partners. To show mastery on ISTE Coaching Standard 4.3.a, you could also consider exploring the following topics:

1. [How can you establish a culture of continuous learning and improvement among coaching partners<sup>2</sup>](#)

# Step 2 Understand: Use Research Rabbit to find additional articles to read.

The screenshot displays the Research Rabbit app interface. The browser address bar shows `researchrabbitapp.com/home`. The interface is divided into several sections:

- Filter:** Set to "Custom". Options for "Abstracts" (unchecked) and "Comments" (checked) are visible. Buttons for "Select None" and "Select All" are present.
- Coaching:** A collection of three papers is shown, each with a blue checkmark:
  - Kutsyuruba ... Godden 2019**: "The role of mentoring and coaching as a means of supporting the well-being of educators and students".
  - Crompton 2020**: "Transform Learning Through Technology: A Guide to the ISTE Standards for Coaches".
  - Bakhshaei ... Vang 2020**: "The Valuable Role of Edtech Coaches during the COVID-19 Pandemic: A National Survey".
- 3 Selected Papers:** A summary bar for the selected collection.
- EXPLORE PAPERS:** Options for "Similar Work" (579), "Earlier Work", and "Later Work".
- EXPLORE PEOPLE:** Options for "These Authors" (9) and "Suggested Authors" (9).
- EXPLORE OTHER CONTENT:** Option for "Linked Content".
- EXPORT PAPERS:** Options for "BibTeX", "RIS", and "CSV".
- PUBLIC COLLECTION:** A toggle switch is currently turned off.
- SHAREABLE LINK:** A "Copy" button is available.
- COLLABORATORS:** An "Edit" button is available.
- EMAIL UPDATES:** A toggle switch is currently turned on.
- Similar Work:** A section with a "Filter" and "Relevance" dropdown. It lists several recommended papers:
  - Kumar ... Johnson 2017**: "Mentoring doctoral students online: mentor strategies and challenges".
  - Squires Squires 2019**: "The well-being of the early career teacher: a review of the literature on the pivotal role of mentoring".
  - Makhamreh ... Stockley 2019**: "Mentorship and well-being: Examining doctoral students' lived experiences in doctoral supervision context".
  - Darling-Hammond 2003**: "KEEPING GOOD TEACHERS: WHY IT MATTERS, WHAT LEADERS CAN DO".
  - Merriam Merriam 2009**: "Qualitative Research: A Guide to Design and Implementation".
- Connections between your collection and 50 papers:** A network graph showing relationships between authors and papers. Nodes represent authors and papers, with lines indicating connections. Key nodes include Kutsyuruba 2019, Mullen 2020, and Crompton 2020. The graph is titled "Connections between your collection and 50 papers".
- Graph Type:** "Network" is selected, with "Timeline" also available.
- Labels:** "First Author" and "Last Author" are selected.
- Filter these items:** A search box for filtering the graph items.
- Zoom Out, Fit All, Zoom In:** Navigation controls for the graph.

# Step 3 Engage: Use scite.ai to engage with peers on their inquiries.

The screenshot shows the scite.ai website interface. At the top, there is a navigation bar with the scite logo, a 'Beta' badge, and buttons for 'Install extension!', 'Product', 'Discover', 'Pricing', 'Blog', 'Sign in', and 'Sign Up'. Below the navigation bar, a search prompt is displayed: 'What does the literature say about the efficacy of using Minecraft to learn computer science?'. Below the prompt, there is a message: '0 free prompt(s) left. [Start your free trial](#) to get unlimited prompts.' The main content area displays a large blue box containing a summary of the literature. The summary states: 'The literature provides substantial evidence supporting the efficacy of using Minecraft as a tool for learning computer science. Several studies have highlighted the benefits of using Minecraft in educational settings, particularly in teaching computer science concepts. For instance, research has shown that Minecraft can be used to teach computer science principles such as artificial intelligence (AI) (Alsaadi et al., 2022), project-based learning in AI (Singh, 2020), interpreted Petri nets (Grobelna et al., 2022), and programming concepts to children (Alsaadi et al., 2022). Furthermore, the use of Minecraft has been associated with enhancing attentional control and neuronal plasticity, which are essential for learning computer science (Bavelier & Green, 2019). Additionally, the game has been found to be effective in teaching science concepts, increasing scientific literacy, and engaging students in science learning (Hobbs et al., 2019; Hartley & Hobbs, 2023). Moreover, the active learning experiences facilitated by Minecraft have been shown to assist in the active construction of abstract concepts, particularly in science education (Nkadimeng & Ankiewicz, 2022). Furthermore, the literature also emphasizes the potential of Minecraft in facilitating effective and engaging learning experiences, especially in the context of computer science education (Panja & Berge, 2021). Studies have explored the usability and effectiveness of Minecraft Education Edition in creating an engaging learning experience, particularly in teaching chemistry and other science-related subjects (Panja & Berge, 2021). Additionally, the use of Minecraft as a teaching tool has been associated with promoting self-directed learning and student-driven exploration, which are essential components of effective education (Faas & Lin, 2017). Moreover, the game has been linked to the development of intellectual and scientific abilities in students (Bile, 2022). In conclusion, the literature strongly supports the efficacy of using Minecraft as a valuable tool for learning computer science.' To the right of the summary, there is a 'References' section. The first reference is titled 'Reference #1' and is a quote: '...To increase children's awareness of modern computer science, research in [12] explores how Minecraft could be used in teaching Artificial Intelligence (AI) in a tenweek course...'. Below the quote, there is a 'See full context' button. The second reference is titled 'Reference #2' and is a quote: '...only computer vision).In this paper, we propose to use Minecraft as the platform for teaching AI via project-based learning...'. Below the quote, there is a 'See full context' button. The references section also includes a 'Section: Related Studies' label and a 'Section: Abstract' label.

assistant by scite Beta Install extension! Product Discover Pricing Blog Sign in Sign Up

What does the literature say about the efficacy of using Minecraft to learn computer science?

0 free prompt(s) left. [Start your free trial](#) to get unlimited prompts.

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In conclusion, the literature strongly supports the efficacy of using Minecraft as a valuable tool for learning computer science.

## References

### Reference #1

“...To increase children's awareness of modern computer science, research in [12] explores how Minecraft could be used in teaching Artificial Intelligence (AI) in a tenweek course...”

See full context

**Section:** Related Studies

### Learning While Playing: Introducing Programming Concepts to Children in Minecraft

[Bashaer Alsaadi](#)<sup>1</sup>, [Bushra Alsaadi](#)<sup>2</sup>, [Athir Alghamdi](#)<sup>3</sup> et al. 2022 *Int. J. Onl. Eng.*

[View full text](#) [Add to dashboard](#) [Cite](#)

### Reference #2

“...only computer vision).In this paper, we propose to use Minecraft as the platform for teaching AI via project-based learning...”

See full context

**Section:** Abstract

### Minecraft as a Platform for Project-Based Learning in AI

# Step 4 Solve: Use Chat GPT to generate a DALL-E image to use with solution.

ChatGPT 4 ▾

 You

Create a square image that shows two teachers communicating and collaborating to create norms for their coaching partnership to create better learning for students

 ChatGPT



Here's the image showing two teachers, one Black male and one Hispanic female, collaborating in a classroom to create norms for their coaching partnership. The setting is designed to reflect a positive and cooperative working environment, with educational elements in the background.

 Message ChatGPT...





# Step 5 Educate: Use Bard to differentiate peers work so it can be shared with colleagues for feedback.

ChatGPT 4 ▾



**You**

User

I am an elementary teacher enrolled in a Digital Education graduate program. I want to share what I have learned from other students in the program with my school colleagues. Please review the following text and provide me with a one-paragraph summary that I can share with Elementary school teachers. Also provide 3 to 4 discussion questions I might use when talking with my peers. Teaching Computer Science with Minecraft

Introduction to Minecraft

Minecraft is currently one of the most popular games of 2023, boasting over 140 million monthly active users, according to searchlogistics.com. Despite this popularity, many players overlook that Minecraft offers an engaging and immersive environment for learning terminal commands, programming basics, computational thinking, and even artificial intelligence. ISTE standard 4.3a for coaches indicates that a successful coach should “Establish trusting and respectful coaching relationships that encourage educators to explore new instructional strategies.” So, in this blog post, I will delve into the educational benefits of Minecraft and explore the differences between the Java and Education editions.

While Minecraft is often regarded as merely a game, educators have recognized its

## **Summary for Elementary School Teachers:**

Minecraft, a popular game with over 140 million monthly users, offers a unique educational platform for teaching computer science concepts in elementary classrooms. It promotes computational thinking and problem-solving through its construction-based gameplay, where students use various blocks to create complex structures. Minecraft facilitates learning fundamental coding concepts like commands, functions, and loops through both block-based coding and languages like Python and JavaScript. The game exists in several versions, but the Java and Education editions are most relevant for educational purposes.

Java Edition allows for extensive customization and modding, helping students learn advanced programming concepts. In contrast, the Education Edition, tailored for classroom use, offers a block-based CodeBuilder for younger students and includes classroom management tools for teachers. Research shows that Minecraft can effectively teach complex scientific and computational problems, even to students without prior programming experience. However, challenges include the cost of the game, the need for teacher proficiency, and the necessity of setting appropriate constraints in the virtual world.

### **\*\*Discussion Questions:\*\***

1. How can we integrate Minecraft into our existing curriculum while ensuring it aligns with educational standards and goals?
2. What strategies can be employed to overcome the challenges of cost and the need for teacher proficiency in Minecraft?
3. How can Minecraft be used to cater to different learning styles and abilities among students?
4. What measures can we take to ensure a balanced and inclusive learning experience in Minecraft, considering the varying interests and inclinations of our students?