

Preparing Students for Jobs & Work-Based Learning

In the Age of AI



RACHAEL MANN

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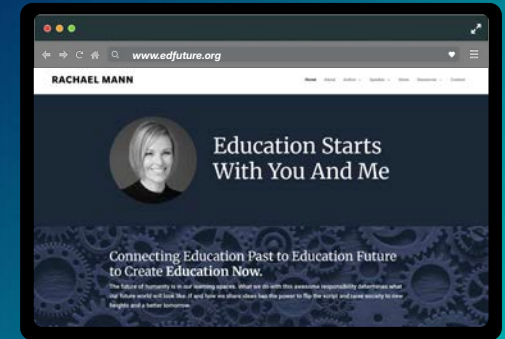
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Welcome! Please Share in the Chat:

- Your Role
- How often do you use generative AI?
- Share a tool or tip for AI in WBL
- Keep the conversation going throughout our hour together! Share your tips and tools in the chat!

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What is Artificial Intelligence (AI)?

In a nutshell, AI can perform tasks that normally requires human intelligence

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AI tools you might use:

Smartphones
Social Media
Streaming Services (Netflix, Spotify, YouTube)
Facial Detection
Autofill Suggestions
Virtual Assistants (Siri, Alexa, Google Assistant)
Online Shopping
Search Engines
Chatbots
AI opponents in video games
GPS

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What is Generative AI?

Unlike traditional AI models that predict or classify data, generative AI creates **new** data that resembles the data that it was trained on such as human-like text based on input prompt or realistic images from text prompts

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Generative AI Main Categories:

- Text Generators
- Image Generators
- Video Generators
- Multimodal Generators
- Music and Sound Generators
- Code Generators
- 3D Model Generators

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THE WHITE HOUSE

ADVANCING ARTIFICIAL INTELLIGENCE EDUCATION FOR AMERICAN YOUTH

AI EDUCATION TASK FORCE & CHALLENGE

- Establish a White House AI Education Task Force and a Presidential AI Challenge

FUNDING GUIDANCE & RESEARCH

- Provide guidance on using federal funds to enhance education outcomes with AI
- Support state and local efforts through research programs

TEACHER TRAINING & AI COURSES

- Prioritize AI in teacher training and professional development grants
- Increase high school access to AI courses and credentials

APPRENTICESHIPS & WORKFORCE PATHWAYS

- Expand AI-related Registered Apprenticeships
- Encourage states to fund AI skills and work-based learning

AI in WBL is a National Priority

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Shared Chats: White House's Executive Order

Advancing Artificial Intelligence for American Youth



Executive Order ADVANCING ARTIFICIAL INTELLIGENCE EDUCATION FOR AMERICAN YOUTH



- CREATION OF A WHITE HOUSE TASK FORCE ON AI EDUCATION
- GUIDANCE ON THE USE OF FEDERAL FUNDS FOR AI IN EDUCATION
- EXPANSION OF AI APPRENTICESHIPS AND SKILLS TRAINING

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How AI is Transforming the Landscape of Work



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The #1 Trend Driving
Change Across All
Industries is Still:

Artificial Intelligence



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AI Integrations in Generative AI Tools: Connect Emails, Calendars, Drive, etc



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AI Overlay in Everyday Tools:

Email, Text Messages,
Social Media, Slide Decks,
Spreadsheets...




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“

We will see as much progress in the decade ahead (2023-2033) as
we have seen in the past century (1923-2023).

Ray Kurzweil

”

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Worst Version of AI that
Your students will ever
experience



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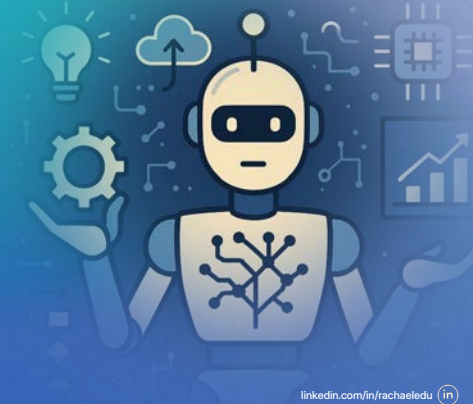
1st Draft: 100% AI-Generated



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AGENTIC AI

**Moving from
Reactive AI
to Agentic AI**



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Agentic AI

Agentic AI is the next step. Instead of only answering, it can also:

1. **Decide what steps to take** toward a goal.
2. **Take actions on its own** (like searching the web, sending emails, or running code).
3. **Learn from the results** and adjust its plan.

Think of it like the difference between:

- A **calculator** → you punch in numbers, it answers.
- A **personal assistant** → you say, "Plan my trip," and it books flights, compares hotels, and reminds you of deadlines, all with less hand-holding.

CALCULATOR



PERSONAL ASSISTANT



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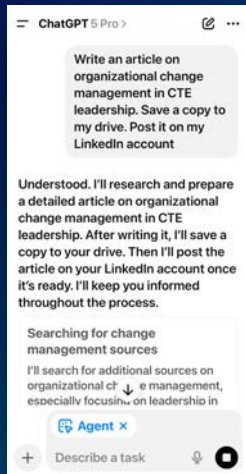
Example:

You: "Help me publish my blog."

- Regular AI: Gives you tips or drafts the blog.
- Agentic AI: Writes the draft, formats it, finds images, posts it online, and then sends you a summary of how many people read it.

Agentic AI = AI that doesn't just *answer*, it *acts*.

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ChatGPT Agent Mode

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Operations: auto-draft MOUs, board memos, grant summaries; pull district data, calendar constraints, and vendor emails via connectors for one cohesive workflow.

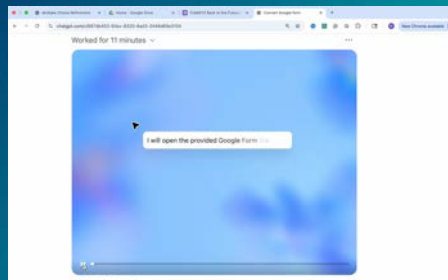
Instruction: generate lab prep checklists, simulate OSHA walk-throughs, create bilingual job-site safety briefs, or provide real-time translation supports for EAL students.

AGENTIC AI



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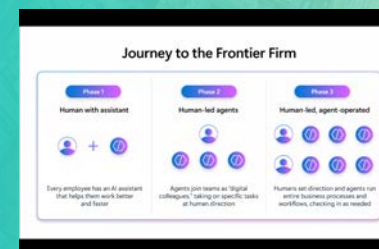
AGENT SOLVES MY
ESCAPE ROOM IN 11 MIN...
WITHOUT ANY OF THE
PHYSICAL CLUES 🤖



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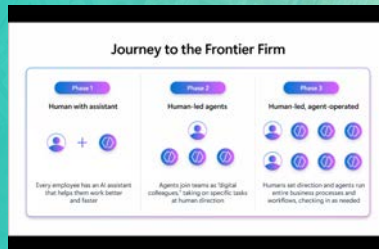
**Your next coworker could
be an AI Agent:**

Human led, agent operated



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How do we prepare students for these shifts that are happening in real time?



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One of the fastest growing uses of AI:

Mental Health and Companionship



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Improved Diagnostics: An estimated 1.29 papers are published every minute in peer-reviewed medical literature (roughly 1,857 per day)

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Dermatology + AI

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AI can find new
clues in old research

New uses for old
drugs

And uncovering
cures that are
hiding in plain sight



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AI tools identify sales patterns based on
specific locations and consumer sets



Image created with: DALL-E 3

eCommerce:

"As AI becomes increasingly embedded in everyday life, your custom
AI will soon understand what you want better than you do."



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The Future of the Entertainment Industry

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The Creator Economy: AI Influencers

Small financial investment
No bad hair days or reshoots
No wardrobes or stylists
Endless content: 24/7, no
vacations or sick days

And the list goes on...

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What do ChatGPT and GeoGuessr have in common? More than you'd think.

The latest AI models (like GPT-4o) are *shockingly* good at guessing the exact location of a photo — not by pulling EXIF data or metadata, but by analyzing subtle visual clues like signs, terrain, architecture, and even menu styles.

Real-world career value:

- **Logistics and supply chain:** Quickly identifying transport routes, warehouses, or port locations
- **Emergency management:** Geolocating photos to assess disaster zones or direct aid
- **Environmental science:** Pinpointing land types, coastal erosion, or habitat changes
- **Law enforcement and cybersecurity:** Analyzing backgrounds in digital evidence
- **Travel, journalism, or urban planning:** Verifying locations and understanding spatial context

#AIFocusedFridays




ChatGPT

AI GEOLOCATION

Exploring career opportunities
while acknowledging
privacy concerns

Image created with ChatGPT 4o

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The World Economic Forum and Stanford AI Index both suggest that while some jobs will be displaced, many more will evolve or be created. Key future-ready skills include:

- Critical thinking
- Data literacy
- Collaboration with technology
- Creativity and innovation


Encourage students to see AI as something they'll work with, not be replaced by. Helping students learn how to use AI responsibly now prepares them for careers we haven't yet imagined.

AI for Workforce Projections



JOBS IN CALIFORNIA



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“

The challenge I see in my industry (advertising) is that people lack problem solving skills. I highly believe understanding concepts helps a person to learn how to ask the right questions. Without the conceptual framework you can't ask the right questions. If I had any advice for a teacher I'd tell them to do whatever they can to instill problem solving skills in their students along with a basic understanding of logic.

Blair Douglas, VP Director, Architect at Digitas Chicago

”

60-MINUTE BRAND-BUILDING SPRINT FOR CTE LEADERS

WHY IT MATTERS

A clear, compelling brand helps families, students, and employers understand why your career center, institution, or community college is the smartest choice.

SET-UP (5 min)

1. Open a fresh ChatGPT conversation (or Perplexity, Gemini, Microsoft Copilot, Claude etc.).
2. Paste a 2-3 sentence description of your school's mission, signature programs, and target audience.
3. Ask: "Identify three core Jobs-to-be-Done (JTBD) for a high-school student exploring career education."
4. Select the sharpest JTBD (e.g., "Find a program tat leads ads to an in-demand job wit low or no college debt")

RESEARCH (25 min)

5. Next, input the following, one at a time: "For this JTBD, run competitive analysis on nearby career centers, magnet schools, and apprenticeship programs."
6. "What strategic gaps or white-space opportunities exist?"
7. "How can our brand messaging uniquely own this gap?"
8. Recommend three visual-identity themes (colors, imagery, slogans) that reinforce that messaging.
9. "Draft a simple experimentation map: channel, cost, timeline, key performance indicators—for testing each theme with
10. Request a risk-based prioritization of experiments.
11. Summarize in 150 words or fewer

PACKAGE (10 min)

12. Request changes if needed. Once you have a usable summary, drop it into a Google Doc → paste into Gemini

SHARE & REFINE (20 min)

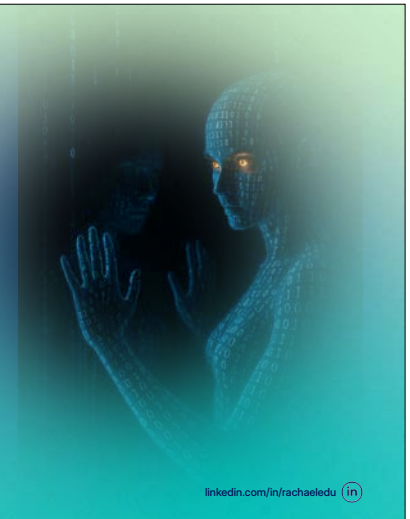
13. Circulate to counselors, student ambassadors, and an industry advisory board.
14. Iterate on weak spots. Lock

**Applying
Industry Best
Practices to WBL**



Why AI isn't going to ruin everything:

1. We crave human connection
2. Premium on human-made
3. More accessible services/reduced costs/increased services
4. If AI steals our jobs, who will buy their products or services
5. Anyone can train a bot to say crazy stuff- no coding skills needed!!!



***“AI won’t take your job;
it will make it to where
anyone can do any
job.”***



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***“AI isn’t coming for the
jobs of the future. It’s
empowering the
upcoming workforce
to do any job of the
future.”***



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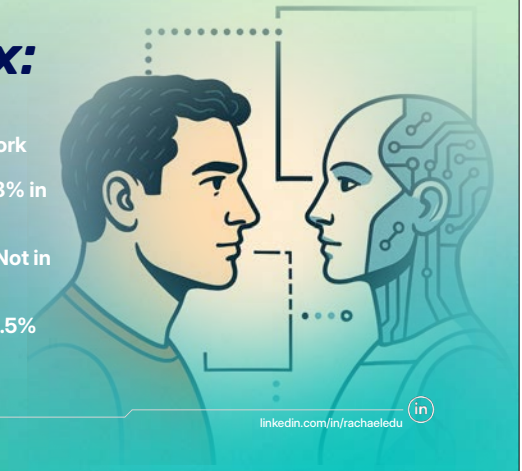
The jobs are here, the training is here, What is challenging is that people find it very hard to stop what they’re doing long enough to get the training they need to get a better job.


”

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Gen Z Paradox:

- 58% of Gen Z graduates can’t find work
- U.S. youth unemployment jumped 2.8% in one year
- 4.3 million young people are NEETs (Not in Employment, Education, or Training)
- In China, youth unemployment hit 46.5% before data suppression

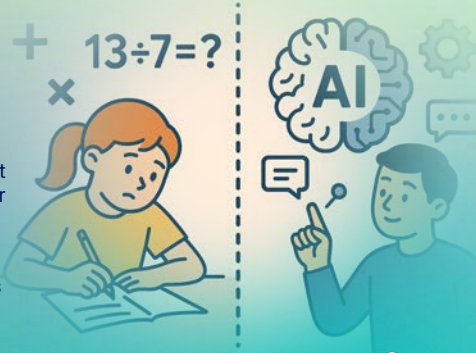


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AI Literacy:

While not everyone needs to become a programmer, understanding how AI is trained at a foundational level is essential for all careers.

More importantly, understanding how to apply AI in all career paths is key in WBL.



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AI-adjacent jobs:

Roles that may not involve directly building artificial intelligence models but require an understanding of AI, its applications, and its impact on specific industries. These jobs involve working with AI tools, integrating AI solutions, or addressing the ethical, regulatory, and strategic implications of AI in the workforce.



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Examples of AI-adjacent Jobs:

- AI Policy Analyst
- AI Implementation Consultant
- Customer Insights Analyst
- AI Content Creator
- Ethical Hacker
- CTE & Workforce Development Specialist
- AI-Integrated Medical Imaging Specialist



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Image Created with GPT4o

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Data Privacy AI Compliance AI Governance: Appropriate or Inappropriate Use of AI?

- Using ChatGPT to summarize ideas in realtime during a workshop
- Use an AI Notetaker during a Zoom Call
- Ask AI to make suggestions for improvement for a CTE Redesign Plan

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Appropriate or Inappropriate Use of AI in these scenarios depends on:

- Permissions and Policies: Ensure there's explicit permission and that any institutional or legal policies are followed before using AI
- Type of AI Model: Consider if it is an EDU version or a commercial version and whether training data is turned off to protect privacy
- Nature of the Data: Be mindful of whether the information being discussed is confidential, proprietary, or sensitive before sharing it with any AI tool
- Context of Use: Is it appropriate to involve AI in that conversation based on the sensitivity of the information

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AI-Specific Clauses for IEP's

No Confidential Information may be uploaded to, processed by, or disclosed to any publicly available AI/ML system, model, or dataset without prior written consent

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NDA's do not explicitly cover

Sharing used to mean emailing a document or handing over a printout, not pasting confidential information into a model you do not control.

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AI Law Specialists Recommend Clauses that:

- Ban feeding confidential data into public models without written consent
- Require proof that approved tools will not train on the data
- Bind contractors and sub processors to the same rules

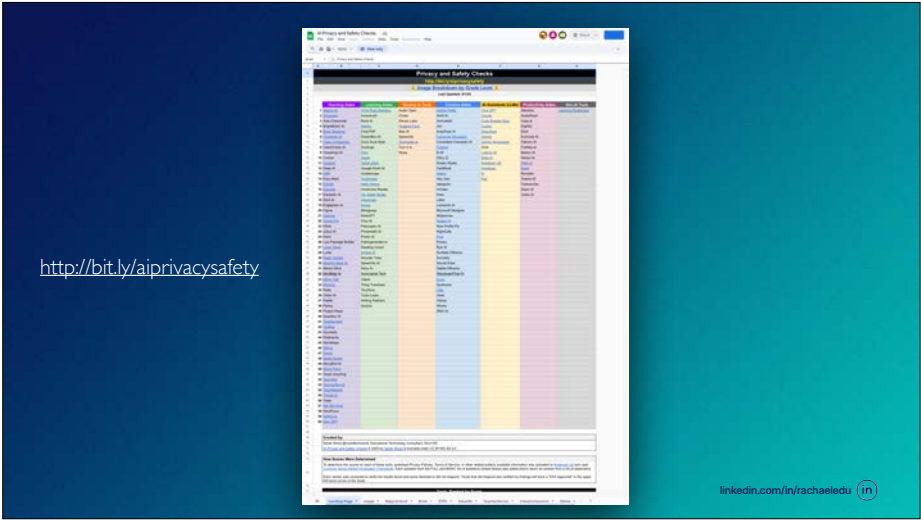
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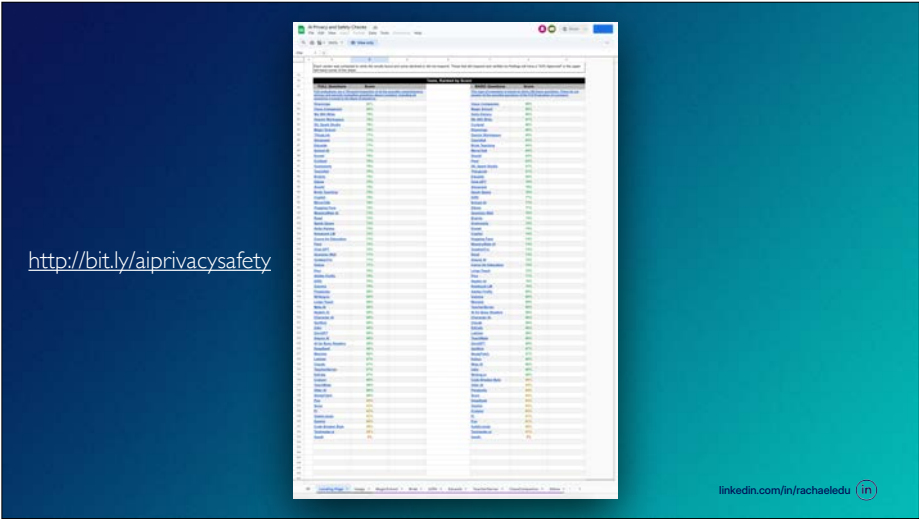
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[illegible][illegible]

<http://bit.ly/aiprivacysafety>



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Gen AI Tools for Maximum Efficiency

Generative AI Tools for Maximum Efficiency

| | | |
|--|---|---|
| <p>Write AI</p> <p>Automate writing for email, reports, and documents</p> | <p>Summarize</p> <p>Extract key points from long documents</p> | <p>ChatGPT</p> <p>Engage in natural language conversations</p> |
| <p>Gamma app</p> <p>Create engaging presentations quickly</p> | <p>Other AI</p> <p>Various specialized AI tools and services</p> | <p>Some app</p> <p>Assess and optimize your workflow</p> |
| <p>Documents</p> <p>Automate document processing</p> | <p>Research AI</p> <p>Accelerate research and data analysis</p> | <p>UIPath Community</p> <p>Access a vast library of automation scripts</p> |
| <p>Excel Copilot</p> <p>Automated spreadsheet assistance</p> | <p>Canva</p> <p>Design visual content and presentations easily</p> | <p>LinkedIn</p> <p>Engage with the professional network</p> |
| <p>Clipchamp</p> <p>Simple video editing and creation</p> | <p>Tools + Butler</p> <p>Streamline workflow and automation</p> | <p>Perplexity AI</p> <p>Search, summarize, and answer questions</p> |

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Human in the Loop

Today

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Career Cluster Activity

AI Exploration

Discover AI tools and their applications in various industries

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The future isn't coming—it's already here.
 Let's shape it together.

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AI Tools & Resources



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Share Your Thoughts on this Workshop :

Survey



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*Available in Paperback,
and on Kindle on Amazon*



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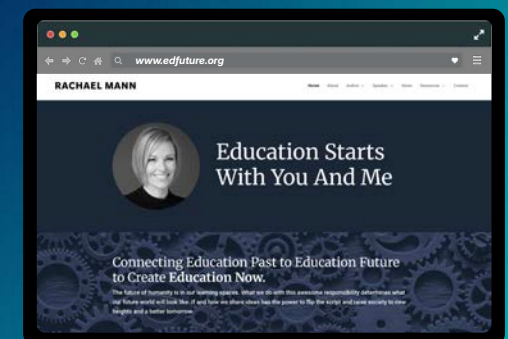
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