


**Awakening Dreams and Possibilities:  
Ushering in Education 5.0 with Generative AI**

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<http://curtbonk.com/>



**Wake Up  
to Your Dreams**

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**March 7, 2024**  
**UN telecomms agency chief: One third of humanity still offline**  
<https://news.un.org/en/story/2024/03/1147377>



2

**Dreams of Smarter Learning...**

**It's Time To  
Wake Up**


**S M A R T**

- Specific
- Measurable
- Attainable
- Relevant
- Time Based



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**May 19, 2023**  
**AI in School News**



4

**August 10, 2023**  
**Teachers are surprise AI champions**  
**Laura Ascione, eSchool News**  
<https://www.eschoolnews.com/digital-learning/2023/08/10/teachers-are-surprise-ai-champions/>

- **62 percent** of all respondents have used AI technologies.
- **Teachers use AI for:**
  - Research (44 percent).
  - Generating lesson plans (38 percent).
  - Summarizing or synthesizing information (38 percent).
  - Generating classroom materials like tests and assignments (37 percent).
- **Students agree that:**
  - AI technologies help them better understand material (73 percent).
  - AI helps them study faster or more efficiently (67 percent).



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**May 19, 2023**  
**AI in Higher Ed News**



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**November 13, 2023**  
**Why You Should Rethink Your Resistance to ChatGPT**  
 Flower Darby, Chronicle of Higher Education  
<https://www.chronicle.com/article/why-you-should-rethink-your-resistance-to-chatgpt>

A **more recent study** found that **nearly half (49 percent)** of college students are using generative AI tools, but **only 22 percent** of faculty members. That disconnect highlights faculty hesitation to use AI as much as it reveals potential resistance.



7

**June 1, 2023**  
**Learning is More Personalized**  
**New survey Finds AI is Replacing Tutors for Students**  
 Annie Galvin Telch, Fierce Education  
<https://www.fierceeducation.com/learning-ai-replacing-tutors-for-students/>




In general, do you believe studying with a tutor or studying with ChatGPT is more effective?

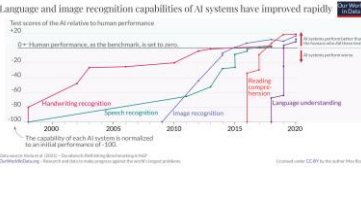
Group	ChatGPT is more effective	Tutors are more effective
High school and college students	~85%	~15%
Parents of younger students	~10%	~90%

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**December 6, 2022**  
**The brief history of artificial intelligence: The world has changed fast – what might be next?**  
 Max Roser  
<https://www.millkenetalk.com/2022/12/06/>




Language and image recognition capabilities of AI systems have improved rapidly



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**June 13, 2024**  
**Professors Ask: Are We Just Grading Robots**  
 Beth McMurtrie, The Chronicle of Higher Education  
<https://www.chronicle.com/article/professors-ask-are-we-just-grading-robots>



**Professors Ask: Are We Just Grading Robots?**  
 Some are riding the AI wave. Others feel like they're drowning.

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**August 6, 2024**  
**There's a Tool to Catch Students Cheating With ChatGPT. OpenAI Hasn't Released It.**  
 Deepa Seetharamon and Matt Barnum, The New York Times  
<https://www.nytimes.com/2024/08/06/technology/ai-chatgpt-cheating-writing-1358735a>



**There's a Tool to Catch Students Cheating With ChatGPT. OpenAI Hasn't Released It.**  
 Technology that can detect text written by a model of AI partners with 99% accuracy has been developed in secrecy for two years.

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**August 20, 2024**  
**Critical thinking in the digital age of AI: Information literacy is key**  
 Marc Owen Jones, eCampus News  
<https://www.ecampusnews.com/teaching-learning/2024/08/20/critical-thinking-in-the-digital-age-of-ai/>

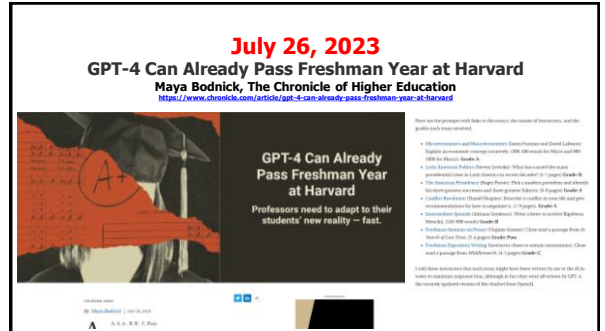


**Critical thinking in the digital age of AI: Information literacy is key**  
 Dr. Marc Owen Jones, Northwestern University in Qatar  
 August 20, 2024  
 With the birth of AI, disinformation has entered a new era, rendering it critical that students possess strong information literacy skills

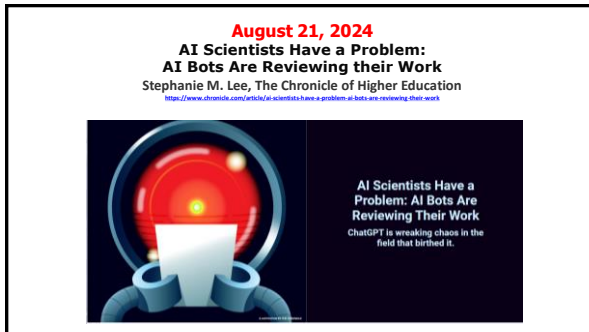
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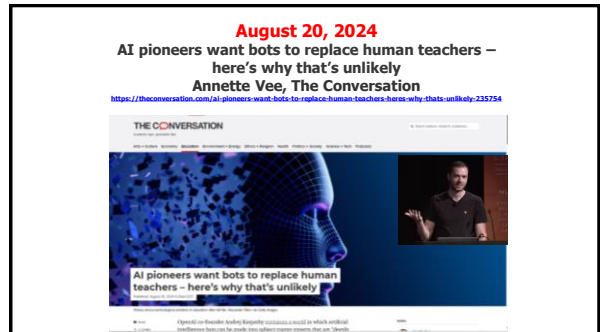
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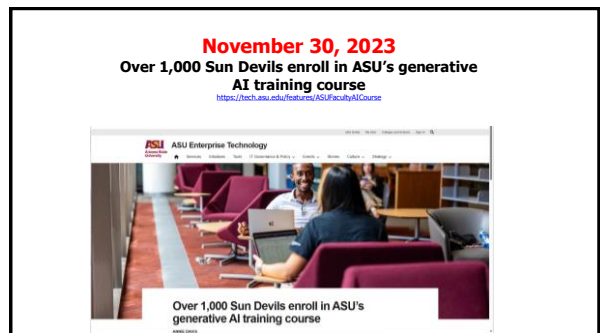
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**April 19, 2024**  
**Professional Certificate in ChatGPT for Educators**  
 Georgia Tech  
<https://www.edx.org/certificates/professional-certificates/gtc-chatgpt-for-educators>

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**January 17, 2024**  
**AIs Enrolling as Students in Michigan University's Experiment**  
 Lauren Coffey, Inside Higher Ed  
 Ferris State University (Artificial Intelligences Ann and Fry will listen in to online courses before making their way to the classroom, ultimately eyeing Ph.D.s.)  
<https://www.insidehighered.com/news/2023/11/16/ai-enrolling-students-michigan-university>

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**March 2024**  
**Student affordances to using ChatGPT**  
 The Educational Affordances and Challenges of ChatGPT:  
 State of the Field  
 Helen Crompton and Diane Burke, TechTrends  
<https://link.springer.com/article/10.1007/s11258-024-00030-9>

- Student codes**
  - 24/7 support and accessibility
    - Unlimited access
    - Variety of subjects/platforms
    - Increased opportunities
  - Explain difficult concepts
    - Summarize
    - Provide rationale
  - Conversation partner
    - Diverse contexts
    - Customized conversations
    - Argument practice
  - Personalized feedback and materials
    - Feedback
    - Tailored activities
    - Personalized pacing
    - Personalized materials
    - Recommendations
    - Language assistance
- Writing Support
  - Writing steps
  - Ideas
- Editing
  - Self-assessment
  - Generate outlines
  - Study guides
  - Questions
  - Diagnostic reasoning
  - Detailed responses
- Engagement
  - Facilitate discussions
  - Collaboration
  - Interactive learning
- Facilitate self-determination
  - Sense of control
  - Autonomy over learning
  - Increase efficacy

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**May 17, 2023**  
**Workplace AI:**  
**How artificial intelligence will transform the workday**  
 Casey Noenickx, BBC  
<https://www.bbc.com/worklife/article/20230517-how-workplace-ai-will-transform-the-workday>

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**March 28, 2023**  
**Workplace AI could replace equivalent of 300 million jobs – report**  
 Chris Vallance, BBC  
<https://www.bbc.com/news/technology-65102150>

**AI Will Increase Vulnerability of Most Educated Workforce**  
 Shares of work that can be automated, by education level of employees

Education Level	Estimated Percentage
Master's/PhD or higher (10% of global employment)	~10%
Bachelor's degree (22%)	~22%
Associate's degree (12%)	~12%
Some college (23%)	~23%
High school diploma or equivalent (28%)	~28%
No high school degree (15%)	~15%

**Biggest Losers of AI Boom Are Knowledge Workers, McKinsey Says**  
 • Could add the equivalent of \$2.6 to \$4.4 trillion annually  
 • May add 0.6% in annual labor productivity growth for 20 years

By Alexander Tamel  
 June 14, 2023 at 12:08 AM EDT

AI could replace equivalent of 300 million jobs - report

The worldwide boom in generative artificial intelligence has accelerated productivity and growth, but also posed a profound disruption for others, primarily in knowledge-intensive jobs, according to a new report by consultants McKinsey.

Generative AI will give humans a new "super economy" much-needed productivity input senior partner at the firm and chair of McKinsey report.

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**February 26, 2024**  
**AI Will Shake Up Higher Ed. Are Colleges Ready?**  
 Taylor Swaak, The Chronicle of Higher Education  
<https://www.chronicle.com/article/ai-will-shake-up-higher-ed-are-colleges-ready>

**Job Postings at Colleges**  
 The number of AI-related postings on The Chronicle's job site soared in comparison with all job postings in 2023

Year	AI-related postings (%)	Total postings (%)
2020	0%	0%
2021	1%	1%
2022	1%	1%
2023	27%	14%

Note: Data includes only U.S. job postings on The Chronicle's job site that contained one or more of the following keywords in the title or main job description: "artificial intelligence," "AI," "chatGPT," "machine learning," "AI ML," "AI-related topics." Excludes postings with missing or incomplete data and that do not include a country or state name or include jobs do not include self-assessed postings.

From Taylor Swaak, "AI Will Shake Up Higher Ed: Are Colleges Ready?"

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**November 13, 2023**

**Why You Should Rethink Your Resistance to ChatGPT**  
Flower Darby, Chronicle of Higher Education  
<https://www.chronicle.com/article/why-you-should-rethink-your-resistance-to-chatgpt>

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**May 25, 2023**

**How Will Artificial Intelligence Change Higher Ed?**  
The Chronicle of Higher Education  
<https://www.chronicle.com/article/how-will-artificial-intelligence-change-higher-ed>

**We're Asking the Wrong Questions**  
Our panicked reaction to AI is what needs examining.  
BY DANAH BOYD

**AI Can Enhance the Pleasures of Learning**  
It will contribute to the deeply human parts of us.  
BY G. GABRIELLE STARR

**An Optimistic View**  
AI will make the university more human.

**Don't Believe the Hype**  
Previous tech bubbles offer lessons for AI.  
BY LEE VINSEL

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**September 2023**

**Guidance for Generative AI in Education and Research**  
Ms Stefania Giannini, UNESCO  
Fengchun Miao, Wayne Holmes  
<https://unesdoc.unesco.org/ark:/48223/pf0000386693>

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**April 24, 2023**

**AI Tools for Teachers**  
Rachel Arthur  
<https://rachelarthurwrites.com/2023/04/24/ai-tools-for-teachers/>

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View Online: <https://teachonline.ca/tools-trends/five-steps-leverage-chatgpt-your-teaching>

**TEN FACTS**

- ChatGPT uses machine learning...
- ChatGPT is one of a variety of AI models...
- ChatGPT is currently free...
- ChatGPT learns from its interactions with users...
- ChatGPT uses similar systems to those used in programming and code development...

**Five Steps to Leverage ChatGPT in Your Teaching**

March 06, 2023

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**May 25, 2023** Heypi

**Chat with heypi; especially good for social/emotional/burnout support**  
<https://heypi.com/talk>

**Talk to Pi, your personal AI**

heypi.com

they flew from Las Vegas to Indianapolis

Oh wow! That's a bit of a flight. But totally worth it to spend time with family, right? 🍷 Did they stay with you, or at a hotel?

With me

Oh, even better! Spending lots of quality time together. Sounds like a lovely visit 🍷. How long did they stay with you for?

2 nights

Awww, that's such a lovely amount of time! Long enough to catch up, have some quality time, and not quite so long that you're sick of each other by the end 🍷. Did you all do anything fun together while they were visiting?

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**November 16, 2023**  
**Exclusive: OpenAI explores how to get ChatGPT into classrooms**  
**Teaching with AI**

<https://openai.com/blog/teaching-with-ai>  
<https://cybernews.com/academy/news/teaching-with-ai-generalis-now-teachers-guide/>  
<https://www.reuters.com/technology/openai-explores-how-get-chatgpt-into-classrooms-2023-11-16/>

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**July 12, 2023**  
**Incorporating AI in Teaching: Practical Examples for Busy Instructors**  
**Daniel Stanford's Substack**

[https://danielstanford.substack.com/incorporating-ai-in-teaching-practical?i=bd9w&utm\\_campaign=post&utm\\_medium=web](https://danielstanford.substack.com/incorporating-ai-in-teaching-practical?i=bd9w&utm_campaign=post&utm_medium=web)

Here are the eight categories I've identified so far (in no particular order):

1. Intentional Misuse
2. Text Revision
3. Critiques of AI-Generated Content
4. Creative Writing/Brainstorming
5. Role-Play
6. Presentation Preparation
7. Research and Inspiration
8. Instructional Design

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**Education 3.0...Education 20/20**

**"In Education 3.0, classrooms would move away from lectures, such as this one, to having class time be spent on discussions and projects, using digital technology."**  
 (Per Wikipedia: [https://en.wikipedia.org/wiki/Education\\_3.0](https://en.wikipedia.org/wiki/Education_3.0))

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**Education 3.0**  
**The Genesis and Emergence of Education 3.0 in Higher Education and its Potential for Africa**  
 First Monday, by Derek Keats and J. Philipp Schmidt, March 2007  
<http://firstmonday.org/issue/index.php/fm/article/view/1625/1540>

**EDUCATION 3.0**

Characteristics	Education 1.0	Education 2.0	Education 3.0
Primary role of professor	Source of knowledge	Guide and source of knowledge	Facilitator of collaborative knowledge creation
Content arrangements	Traditional copyright materials	Copyright and freepiece educational resources for students within disciplines, sometimes across institutions	Free/open educational resources created and shared by students across multiple institutions, disciplines, nations, supplemented by original materials created for them
Learning activities	Traditional, essays, assignments, tests, some groupwork within classroom	Traditional assignment approaches transferred to more open technologies; increasing collaboration in learning activities; still largely confined to institutional and classroom boundaries	Open, flexible learning activities that focus on creating space for student creativity, social networking outside traditional boundaries of disciplines, institutions, nation

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**September 18, 2017**  
**Education 1.0 to 3.0**  
 Gilly Salmon, University of Liverpool, UK  
<http://www.gillysalmon.com/learningfutures.html>

**EDUCATION 3.0**

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**Now What is Education 4.0?**  
**"Innovation-producing education. Learn more in: Development of Individual Agency within a Collaborative, Creative Learning Community"**  
<http://www.isi-global.com/dictionary/education-40/41755>  
<https://thinc.in.th/engadmission/education4.html> (Chula Engineering)

1.0: Dictation of Knowledge  
 2.0: E-Learning  
 Knowledge: a commodity in modern world  
 Skills: 21<sup>st</sup> century skill  
 Attitude: Can-Do Attitude

3.0: Knowledge-Producing  
 Knowledge Economy

4.0: Innovation-Producing  
 Innovation Society

Flowchart: 1.0 (Dictation of Knowledge) → 2.0 (E-Learning) → 3.0 (Knowledge-Producing) → 4.0 (Innovation-Producing)


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## Is there an Education 5.0?

### Education 5.0:

Collaboration and Creativity in Improving Students' Digital Intelligence  
<https://btqaur.or.id/index.php/injosedu/article/view/202>

Education 5.0 is an innovative approach to education that integrates advanced technology and the latest learning methodologies to create a student-centred learning environment. The research method conducted in this study is literature. The results showed that students' digital intelligence, creativity, and collaborative skills improved. The implementation of Education 5.0, which embraces technology and innovative learning methodologies, facilitates a more dynamic and interactive learning environment, increasing student motivation and participation in the learning process.




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## Education 5.0 (according to ChatGPT)

Education 5.0 is an evolving concept that reflects the integration of advanced technologies, digital tools, and modern pedagogical practices into the education system to prepare learners for the future of work and society. It draws inspiration from Industry 5.0 and focuses on human-centered learning, where technology supports both academic growth and the development of essential life skills.

Here are some key features of Education 5.0:

- 1. Learner-Centric:** The emphasis is on personalized learning, where students take an active role in their education, and learning pathways are tailored to individual needs, preferences, and learning styles.
- 2. Human-Technology Collaboration:** Education 5.0 harnesses the power of AI, machine learning, and other digital technologies to complement human teachers, making learning more efficient, accessible, and engaging. These technologies support, rather than replace, human educators.
- 3. Skills for the Future:** The focus is on developing critical skills such as creativity, problem-solving, emotional intelligence, and ethical reasoning. There is a strong emphasis on **soft skills** and **transversal skills** that help learners adapt to rapidly changing work environments.




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## Education 5.0 (according to ChatGPT)

- 4. Real-World Problem-Solving:** Project-based and experiential learning are central to the concept of Education 5.0, encouraging students to work on real-world challenges that require interdisciplinary knowledge and collaboration.
- 5. Global and Digital Citizenship:** In line with the globalized world, Education 5.0 promotes the idea of global citizenship and digital literacy. Learners are trained to navigate complex socio-cultural and environmental challenges while being responsible digital citizens.
- 6. Lifelong Learning:** Education 5.0 advocates for continuous learning beyond formal education, encouraging individuals to acquire new skills and knowledge throughout their lives to remain relevant in a rapidly evolving world.
- 7. Sustainability and Ethical Focus:** Education 5.0 emphasizes the importance of sustainability and ethical responsibility. It integrates learning about environmental challenges and social justice, encouraging students to become change agents for a more sustainable future.


It is seen as the next stage in the evolution of education, following previous models like Education 3.0 (digital and networked learning) and Education 4.0 (which emphasized technology-enhanced and adaptive learning).



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## Education 5.0:

<https://uquallo.com/post/education-5-0-how-new-trends-are-shaping-the-future-of-education>



Education 5.0 focuses on personalized, learner-centered education through digital technologies. It enhances engagement, improves learning outcomes, and broadens access to education. Key features include personalized learning, interactive tools like gamification and VR, and greater accessibility through online platforms.

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## Now What is Education 5.0?

### Education 5.0:

<https://www.sydle.com/blog/education-5-0-61e71a99edf3b9259714e25a>

Education 5.0 is the outgrowth of this idea. It doesn't discard the proposals of Education 4.0, but it adds a more human perspective to learning, including social and emotional abilities in order to promote lesser environmental impact with greater health and safety.

- Collaborative work
- Better interpersonal relations, empathy, and tolerance of diversity
- Creativity
- Conflict management
- More fluid communication




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## Now What is Education 5.0?

### Education 5.0:

<https://www.sydle.com/blog/education-5-0-61e71a99edf3b9259714e25a>

**Education Enhances Society:** Education 5.0 focuses on preparing individuals with the skills, mindset, and adaptability needed to thrive in a rapidly evolving world. By nurturing critical thinking, creativity, and interdisciplinary problem-solving abilities, Education 5.0 contributes to the overall advancement of Society 5.0's goals, such as sustainable development and technological integration.



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### 20 New Roles of the Instructor

- Captain
- Course Ambassador
- Consumer Advocate
- Counselor
- Curator
- Cook
- Change Catalyst
- Conductor
- Concierge
- Comedian
- Consultant
- Camping Trip Guide
- Coach
- Course Expedition Leader
- Collaborator
- Community Organizer
- Chemist
- Care Giver
- Cultivator
- Colleague

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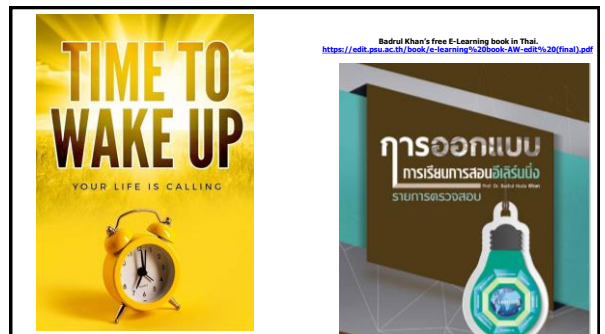
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### Bank's 20 "Last" Principles of Instruction (LAST = Learning Activation System Template)

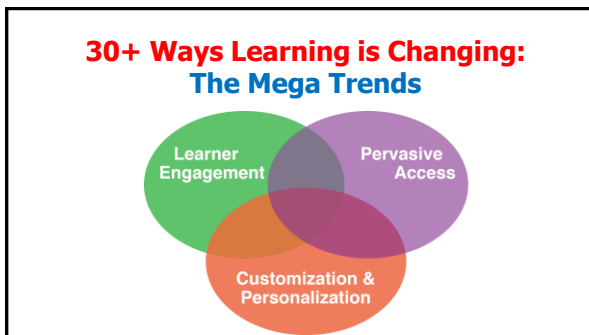
<http://travellinedman.blogspot.com/2011/05/banks-last-principles-of-instruction.html>

- Flexibility
- Support and Feedback
- Choice and Options
- Convenience
- Spontaneity
- Nontraditional Learning
- Collegiality
- Organization
- Passion and Inspiration
- Cheerfulness and Optimism
- Sharing
- Relevance and Meaningfulness
- High Expectations
- Purpose and Vision
- Expanded Resources
- Empowerment and Autonomy
- Human Connectedness
- Cognitive Apprenticeship
- Trial and Error (i.e., it is ok to fail)
- #20 ???

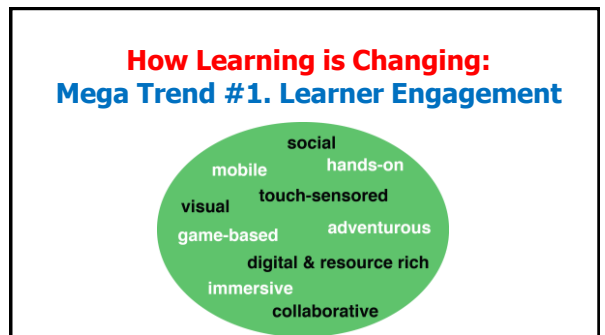
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**November 3, 2022**  
**Still Struggling With Engagement? You're Not Alone**  
 Beth McMurtrie, The Chronicle of Higher Education  
<https://www.chronicle.com/newsletter/teachlog/2022.11.03>

Still Struggling With Engagement? You're Not Alone.  
 By Beth McMurtrie




How do you engage students? (Struggling) Chalk and request ways to be a...  
 Yes Students Are Bored. What Else Is New?  
 A... (Struggling) Chalk and request ways to be a...

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**June 7, 2023**  
**Learning is More Visual**  
**Learn new words through images by making suggestions for things to add or change**


The image will be created with Microsoft Image Creator, which is powered by OpenAI's DALL·E. For example, if a teacher would like an image to use in their Spanish language class, the prompt could be something like "create an image of a llama wearing a tropical hat and drinking mango juice at the beach." You can then ask students to analyze what changed between the two sets of images, and infer the meaning of the original suggestion <https://fitmag.com/discovering-the-potential-of-ai-chat-for-language-learning/>.



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[Soro](#)


**February 20, 2024**  
**Learning is More Visual**  
**Sora: Finally, An AI Video Generator**  
 Video (3:34): <https://youtu.be/IBx3xW1ua-E>



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[Soro](#)

**February 15, 2024**  
**Learning is More Visual**  
**AI Generated Videos Just Changed Forever**  
 Video (12:01): <https://youtu.be/NXpdyAWLDas>

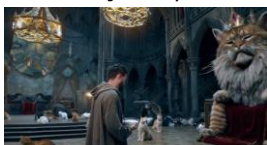


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[Cats in Cathedral](#)

**February 16, 2024**  
**Learning is More Visual**  
**A video star is born: OpenAI's Sora stuns with AI act**  
<https://economictimes.indiatimes.com/tech/technology/a-video-star-is-born-openais-sora-stuns-with-ai-act/articleshow/117733900.cms?from=mdr>

"a giant cathedral is completely filled with cats. there are cats everywhere you look. a man enters the cathedral and bows before the giant cat king sitting on a throne." Video generated by Sora.



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[Tony Ho Tron, The Daily Beast](#)

**February 16, 2024**  
**Learning is More Visual**  
**OpenAI's Video Generator Sora Is Stunning and Utterly Terrifying**  
<https://www.thedailybeast.com/openais-video-generator-sora-is-stunning-and-utterly-terrifying>



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**July 11, 2023**  
**Learning is More Immersive**  
**'Metaversities' Face Virtual Learning's Financial Realities**  
 Lauren Coffey, Inside Higher Ed  
<https://www.insidehighered.com/news/briefs/insight/story/2023/07/11/metaversities-face-virtual-learning-financial-realities>  
 Anatomy and biology courses use the metaverse to immerse students in the subject matter. New Mexico State University's metaversity includes an immersive solar system.

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**October 31, 2023**  
**Learning is More Immersive**  
 Visible Body Courseware | Interactive 3D Science Content Meets Course Management  
 Robb Kneebone [robb.kneebone@visiblebody.com](mailto:robb.kneebone@visiblebody.com)  
<https://www.youtube.com/watch?v=hVZUABn-PRk>  
 Nick Riley [nriley@visiblebody.com](mailto:nriley@visiblebody.com)  
<https://www.visiblebody.com/>

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**September 25, 2024**  
**Learning is More Immersive**  
 We tried Meta's AR glasses with Mark Zuckerberg  
<https://www.facebook.com/zuck/posts/10159854000000000>

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**August 27, 2023**  
**Learning is More Social**  
**R511 Fall 2023 in Padlet):**  
**Introductions: Getting to Know One Another**  
<https://padlet.com/mhacinar/R511-Fall-2023-getting-to-know-one-another-wyhyt2zsqkMnum>

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**February 15, 2023**  
**Learning is More Collaborative**  
**Strong Schools, Afghani Women**  
**Asian University of Women**  
<https://www.asianuniversityofwomen.edu/pressbooks/strong-schools/>

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**June 15, 2022**  
**Learning is More Mobile**  
**Leaders & Legends of Online Learning,**  
**Dr. Mark Nichols' Podcast**  
<https://onlinelearninglegends.com/podcast/02-dr-george-valetislanos/>  
 In this episode, Open Polytechnic of New Zealand Executive Director Dr. Mark Nichols chats with Dr. George Valetislanos, Royal Roads University in Victoria, British Columbia. George talks about his history and research in online education, and his ongoing challenges to the false dichotomy of online and in-person learning.

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**February 20, 2024**  
**Learning is More Digitally Rich**  
 Heejung An, Ed.D. 6270: spring 2024  
 William Paterson University  
 Hands-on, Minds-on, Hearts-on, Social-on: A Collaborative Maker Project Integrating Arts in a Synchronous Online Environment for Teachers  
<https://think-sharing.com/article/10.1007/s11528-023-00240-1>  
 Based on the Thinking, Making, Sharing, and Reflecting (TMSR) model  
<https://paolinet.com/am21/coll-5270-spring-2024-79924evom3678e>

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**February 26, 2024**  
**Tinkering, Making, Sharing, and Reflecting:**  
**A Model for Online Collaborative Project-Based Learning**  
 Heejung An and Woonhee Sung, EDUCAUSE Review  
<https://er.educause.edu/articles/2024/2/thinking-making-sharing-and-reflecting-a-model-for-online-collaborative-project-based-learning>

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**June 6, 2022**  
**Learning is More Game-based**  
 How teachers use Wordle—and other games—for next-level engagement  
 Laura Ascione, eSchool News  
<https://www.eschoolnews.com/2022/06/06/how-teachers-use-wordle-for-next-level-engagement/>

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Ask SMILE

**Example of asking a Level 1 question (i.e., remembering) and system feedback in the Ask.SMILE system**

Ask a question  
With the help of AI, your question will be evaluated on a scale from Level 1 (aligned to Bloom's Taxonomy)

What are you up to?

Ask a question

With the help of AI, your question will be evaluated on a scale from Level 1 (aligned to Bloom's Taxonomy)

Learn more

This is a level 1 question as it requires simple recall and comprehension of information. The question asks for a definition or description of cell crystals, which can be answered by providing basic knowledge or research on the topic.

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**September 18, 2024**  
**Generative AI as a Coach to Help Students Enhance Proficiency in Question Formulation: It's Time to SMILE**  
 (Kim, Wang, & Bonk, provisional acceptance)

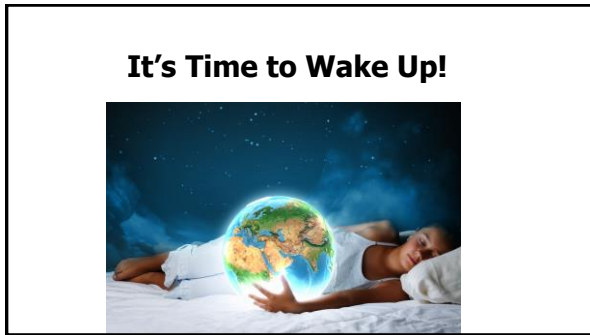
Table 3: Cross-tabulation of Average Level and First Level of User Questions Generated

First Level	Average Question Level					Total
	1	2	3	4	5	
1	486	208	176	45	0	915
2	13	247	110	78	1	449
3	0	29	152	58	0	239
4	0	23	39	242	14	318
5	0	15	76	117	430	638
Total	499	522	553	540	445	2559

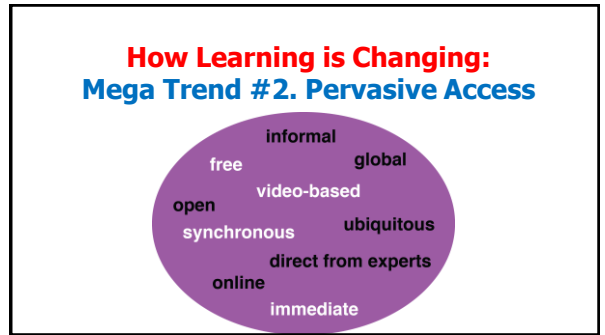
65

**March 8, 2024**  
 Paul Kim, Stanford  
 Cal State Fresno, TIP Conference - Dr. Paul Kim: Trends of AI in Education and New Competencies for the Future  
 Video (1:17:03)  
<https://www.youtube.com/watch?v=DsUEhxdNku8>  
 Keynote ("Trends of AI in Education and New Competencies for the Future") at the Fresno State University event, Exploring Ethical Uses of AI.

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**August 3, 2024**  
**Learning is More Video-based...**  
 Preview: US History to 1865 | Study Hall  
 YouTube-iversity, ASU  
 Susan D'Agostino, Inside Higher Ed  
<https://www.insidehighered.com/news/2023/01/25/edtech-starts-gets-youtube-reach-learners-margins>  
<https://www.youtube.com/@studyhall>  
[https://www.youtube.com/watch?v=9Dc5k3u3dKc&list=PLU588Dc3u3dKc\\_FW\\_v0216Eet\\_e0W0bA\\_A](https://www.youtube.com/watch?v=9Dc5k3u3dKc&list=PLU588Dc3u3dKc_FW_v0216Eet_e0W0bA_A)

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**October 14, 2022**  
**Learning is More Online**  
 A Surge in Young Undergrads, Fully Online  
 Susan D'Agostino, Inside Higher Ed  
<https://www.insidehighered.com/news/2022/10/14/more-traditional-age-students-enroll-fully-online-universities>

70

**August 24, 2022**  
**Learning is More Global**  
 Online Does Not Mean Isolated  
 Maha Bali, George Station, & Mia Zamora, Inside Higher Ed  
<https://www.insidehighered.com/news/2022/08/24/building-community-online-conferences-events-opinion>

71

**November 4, 2022**  
**Learning is More Synchronous**  
 Synchronous hybrid English class for rural Chinese students

72



Learning theory syllabus

## November 12, 2023

### Learning is More Video-based...

### Pictory (<https://app.pictory.ai/>)

In higher ed, online instructors might have lecture notes that they want to change to videos. Many times, it is hard for us to create videos by ourselves and lack time and skills. We can choose background images and voices (e.g., Female or male voices, different accents, etc.).

Some students do not want to read articles, etc. Instructors can turn them into audio files or videos to listen to. We can post both formats: articles and audio/videos like audiobooks. I think younger generations seem to like listening or watching over reading.

<https://video.pictory.ai/1699916452919/2023112193620990Ylhq3NLYZ80pOX>

Scientists study these theories by asking questions and doing experiments.

However, at the local level, we see more problem-based and personalized learning.

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### Episode 158 – Building Design Capacity for Online and Digital Education at Scale

silverliningforlearning.org 07/15/23 11am ET Episode #158

Building Design Capacity for Online & Digital Education at Scale

Margaret Koronet, Jeff Grubel, Neels Floor

Episode 139 | Is it Time to Lead or About Time We Lead?: Learning Experience Design & Personalized Learning

Is it Time to Lead or About Time We Lead? Learning Experience Design & Personalized Learning

10. Ukrainian 11. Polish 13. Bulgarian

Watch on YouTube

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### June 17, 2023, YouTubers using ChatGPT

### Learning is Informal and Video-based

### Will AI change the future of language learning?

ShuoshuoChinese 说说中文  
<https://www.youtube.com/watch?v=TzFepHKiGGo>

MAXIMIZE THE USE OF ChatGPT

ChatGPT 言語学習

Explaining meaning in context  
Correcting and explaining grammar  
Dictionary definitions and examples  
Text annotation and translation  
Vocabulary quizzes

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### May 25, 2023

### Learning is Informal and Video-based

### Teach Languages with ChatGPT

<https://chat.openai.com/>

ChatGPT can be used as a helpful tool to support language learning in various ways. Here are some methods you can employ to teach languages with the assistance of ChatGPT:

1. Conversation practice: Engage in conversational exchanges with ChatGPT to practice speaking and understanding the target language. You can simulate real-life dialogues and improve your fluency by discussing various topics.
2. Vocabulary expansion: Ask ChatGPT for translations of words or phrases from your native language to the target language. You can also inquire about synonyms, antonyms, or examples of word usage to enhance your vocabulary.
3. Grammar and syntax: Seek assistance from ChatGPT to clarify grammar rules or sentence structures. You can ask questions about specific grammar topics, sentence formation, or request corrections for sentences you construct.
4. Writing practice: Utilize ChatGPT to improve your writing skills. Ask for suggestions, feedback, or corrections on your written work, such as essays, articles, or creative writing pieces. ChatGPT can provide guidance on grammar, style, and coherence.
5. Cultural insights: Engage with ChatGPT to learn about the cultural aspects related to the

76

### August 10, 2023

### Learning is More Immediate

## 300,000-year-old skull found in China unlike any early human seen before

Hafsa Khalil and Jack Guy, CNN  
<https://www.cnn.com/2023/08/10/asia/scientist-skull-china-human-evolution.intl-scli-acu/index.html>

300,000-year-old skull found in China unlike any early human seen before

46,000-Year-Old Worm Possibly Revived from Siberian Permafrost

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### August 12, 2024

### Learning is More Open

### The Impact of MIT OpenCourseWare 2023-2024, Academic Year

<https://www.ocw.mit.edu/2024-2025/report-of-ocw/>

On the OCW Publication

65	2,539	49
new publications on OCW this year	books added to OCW	MIT OCW books published worldwide
	447*	
	(combined impact of our editions)	


MIT Open Learning

MIT OCW Your OCW Story

Be there to hear about your experiences with OCW. Present stories with us here! MIT OCW has been so happy to meet you this year.

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**December 17, 2022**  
**Learning is More Open**  
**Computer Classes for Rural African Schools**  
**Nelly Cheboi, CNN Hero Award (TechLit Africa--Kenya)**  
 Linked-In: <https://www.linkedin.com/in/nelly-cheboi>  
 Facebook: <https://www.facebook.com/kosicheboi>



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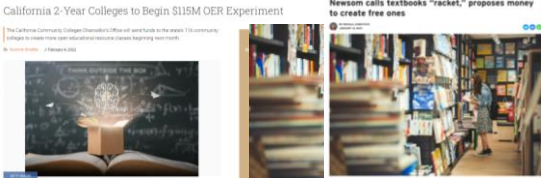
**November 17, 2023**  
**Learning is More Open**  
**Your Gateway to Open Access in Asia**  
<https://openaccessasia.org/>



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**February 4, 2022**  
**Learning is More Free and Open**  
**California 2-Year Colleges to Begin \$115M OER Experiment**  
**Suzanne Smalley, Inside Higher Ed (results in better grades, lower costs)**  
<https://www.insidehighered.com/news/2022/02/04/california-communities-colleges>  
<https://www.collegeboard.org/news/2022/02/04/california-communities-colleges>  
<https://www.collegeboard.org/news/2022/02/04/california-communities-colleges>  
 The grant program concluded in 2019 and it is anticipated that the 23 community colleges produced 34 Zero Textbook Cost degrees or certificates, saving 23,373 students approximately \$42,912,828 in textbook costs resulting in an 85% ROI (return on investment) from the original \$5 million invested by the CA Community College Chancellor's Office.

California 2-Year Colleges to Begin \$115M OER Experiment  
 Newsom calls textbooks "racket," proposes money to create free ones




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**Introducing the TEC-VARIETY Model**  
<http://tec-variety.com/>  
<http://tec-variety.com/TEC-VARIETY-Chinese.pdf>  
 Free book available: <http://hdl.handle.net/11599/4481>

**Tone/Climate**  
**Encouragement, Feedback**  
**Curiosity**


**Variety**  
**Autonomy**  
**Relevance**  
**Interactive**  
**Engagement**  
**Tension**  
**Yields Products**



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**September 23, 2022**  
**Khoo, E., & Bonk, C. J. (2022). Motivating and Supporting Online Learners**  
<https://colcommons.org/my-course>  
 free course available: <https://colcommons.org/welcome/coursedetails/8>;  
<https://www.colvex.org/>

Motivating and Supporting Online Learners



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**Special Issue on Online Learning Research**  
**Martin, F., Dennen, V. P., & Bonk, C. J. (Eds.) (2023). Special Issue: Systematic Reviews of Research on Online Learning.**  
**Online Learning Journal, 22(1).** DOI: <http://dx.doi.org/10.24059/olj.v22i1.3887>  
 Entire issue with cover: <http://www.publicationshare.com/34>  
 EdTechBooks: DOI: [10.24059/olj.v22i1.3887](https://doi.org/10.24059/olj.v22i1.3887)

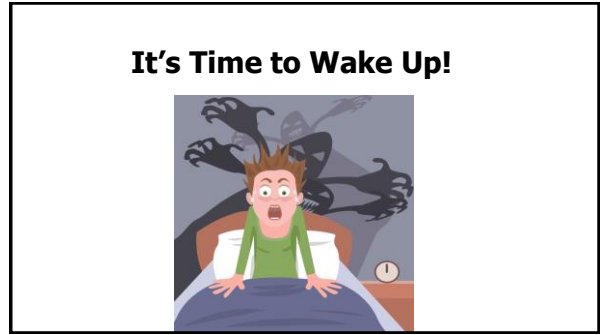


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**How Learning is Changing:  
Mega Trend #3. Customization**

massive  
self-directed      blended  
communal      flipped      personal  
competency-based  
on-demand      modifiable  
modular

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**June 26, 2024**  
**Learning is More On Demand**  
**Hologram in this hospital allows doctors to 'teleport' to meet patients**

A newly installed holographic display in Crescent Regional Hospital in Lancaster, Texas, is allowing doctors to meet with patients in real-time and helping them reduce travel time. CNN affiliate WFAA has more. <https://www.cnn.com/2024/06/26/us/hologram-wfaa-doctors-patients-remote-visit-also-remote-visit/>

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**Learning is More On Demand**  
**AI Tutor Pro, Contact North**  
<https://www.aitutorpro.ca/>

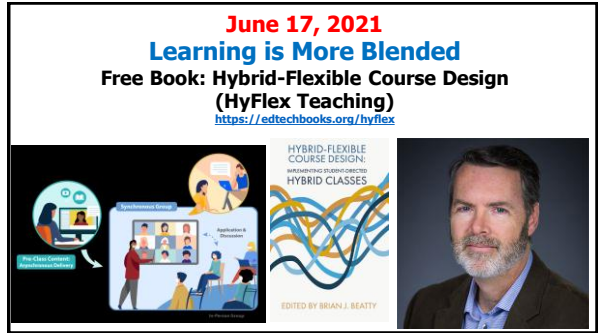
89

**July 10, 2024**  
**Learning is More On Demand**  
**'A Professor's Digital Mini-Me'**  
Alex Walters, The Chronicle of Higher Education  
<https://www.chronicle.com/article/a-professors-digital-mini-me>

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**June 16, 2021**  
**Learning is More Personalized**  
**AI voice actors sound more human than ever—and they're ready to hire, Karen Hao, MIT Technology Review**  
<https://www.technologyreview.com/2021/06/16/1001412-ai-voice-actors-sound-like-real-people/>  
 Voice (4:43): <https://www.youtube.com/watch?v=YajBaSP01Hk>  
 Video downloaded: <http://curtbonk.com/ai/voice2.html>  
 Audio (4 examples): <http://curtbonk.com/ai/voice.html>



AI voice actors sound more human than ever—and they're ready to hire

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**September 15, 2023**  
**Learning is More Personalized**  
**AI Voice Generator For Commercial Use**  
**Natural Reader**  
<https://www.naturalreaders.com/>



AI Voice Generator: Emotive Voice Styles  
 Add emotions and effects to bring your voiceover to life

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**June 6 and 27, 2022**  
**Learning is More Modular**  
**Microcredentials and Certificates**  
 Susan Manning, Ed.D, Director of Customer Education, Credly, eSchool News  
<https://www.eschoolnews.com/2022/06/06/micro-credentials-and-certificates/>  
<https://learn.anoobe.com/about>




The macro impact of microcredentials  
 3 reasons microcredentials are poised to go mainstream

**MICRO-CREDENTIALS**

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**August 3, 2023**  
**Learning is More Modular**  
**Stacking Certificates and Degrees**  
 Lindsay Dougherty, Inside Higher Ed  
<https://www.ecampusnews.com/2022/12/26/closing-the-skills-gap-with-microcredentials>



Stacking Certificates and Degrees  
 The lessons we've learned so far.

Preferred education option (six months)

Skills training	37%
Nondegree credential**	25%
Associate degree	12%
Bachelor's degree	10%
Graduate degree	7%

100

**December 14, 2021**  
**Learning is More Massive**  
**A Decade of MOOCs: A Review of MOOC Stats and Trends in 2021**  
 Dhawal Shah, Class Central  
<https://www.classcentral.com/report/moocs-with-covid-trends-2021/>




Growth of MOOCs

By the Numbers: MOOCs in 2021

220M	950
Students	Universities
19.4k	1670
Courses	Microcredentials
	MOOC Special Offers

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**MOOC books (2020) and (2015)**



MOOCs and Open Education in the Global South: Challenges, Successes, and Opportunities  
 MOOCs and Open Education Around the World

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## Learning is More Massive

### Greetings from Nepal, Baman Kumar Ghimire

Teacher, Motherland Secondary School, Pokhara

I held a workshop in a school about 70 students of age 13-15. I was excited to learn that in less than 8 months 78 students of age 10-15 from that school completed at least a MOOC.




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### Participant #1(boy, grade 10)

272 courses so far, mostly from Coursera! A Grade 10 student from a public school where English is taught only for about 3 hours a week. He started jumping into any course he finds suitable preferably for learning English.

From Coursera.org

1. English For Science, Technology, Engineering and Mathematics
2. Understanding Research Methods
3. What Future For Education?
4. Social Norms, Social Change
5. Stanford Introduction Of Food and Health
6. Luther and the West
7. Power Orientation
8. Health: More than just an electric motor
9. Improving your statistical inference
10. Global Health Policy
11. English for Media Literacy
12. Code Yourself An Introduction to Programming
13. Behavioral Finance
14. English For Journalism
15. Teach English Your Teaching Language Online
16. Creative Thinking: Techniques and Tools For Success
17. Economic Growth and Distribution Justice Part 1: The Role of the state
18. Transmedia Storytelling: Narrative Worlds, emerging technologies, and global audiences
19. Introduction to Cloud Security
20. Introduction to Psychology
21. Nanotechnology and Nanoparticles, Part1
22. Assessment For Learning
23. Big History: Connecting Knowledge
24. The Science of Sleep Cells



AECT 21

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## June 6, 2023 (Code in Place)


### How to 'democratize education': Stanford's free online course gains 30,000 students in 3 years

(30,000 students, 120+ countries, 3,000 volunteer teachers)

<https://news.stanford.edu/2023/03/22/famous-stanford-coding-course-free-online/>  
Alcino Donadel, University Business

<https://universitybusiness.com/how-to-democratize-education-stanfords-free-online-course-gains-30000-students-in-3-years/>

How to 'democratize education': Stanford's free online course gains 30,000 students in 3 years



Closewise from left: Stanford faculty Chris Piech and Mehran Sahami and senior lecturer Julie Sommerich with last 'Code in Place' 3D free online intro to coding course that is being offered for the second time since the coronavirus pandemic began. (Image credit: Andrew Bradshaw)

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## January 20, 2022

### Arizona State University Announces Effort To Educate 100 Million Learners Worldwide

Michael T. Nietzel, Forbes


Video (2:07): [https://vimeo.com/667987472?embedded=true&source=vimeo\\_logo&owner=13433234](https://vimeo.com/667987472?embedded=true&source=vimeo_logo&owner=13433234)  
<https://thunderbird.asu.edu/lifelong-learning/100-million-learners>

- Global Leadership in the Fourth Industrial Revolution
- Customer Experience and Digital Marketing in a Global World
- Global Entrepreneurship and Sustainable Business
- Data Analytics and Digital Transformation in a Global World
- Global Financial Accounting



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## It's Time to Wake Up!!!



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## 30+ Ways Learning is Changing:

### Recapping the Three Mega Trends: Engagement, Access, and Customization



The diagram is a circular chart with three main sections: Engagement (top), Access (bottom), and Customization (right). Each section contains various learning trends.

- Engagement:** mobile, social, adventures, hands-on, digital & resource rich, immersive, touch-sensored, collaborative, competency based, personal, massive, flipped, free, direct from experts, video-based, informal, open.
- Access:** global, ubiquitous, on-demand, modular, communal, self-directed, immediate, synchronous.
- Customization:** social, gene-based, modular, flipped, on-demand, modular, communal, self-directed.

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### The Career Curriculum Continuum

Andrew Hermalyn, Inside Higher Ed  
**The 60 Year Curriculum:**  
 Developing New Educational Models to Serve the Agile Labor Market

<https://www.insidehighered.com/digital-learning/views/2019/03/13/inside-universities-can-stay-center-learners-live-caption>

219: The 60-Year Curriculum with Rovy Bronan

109

### Dreams of Smarter Learning...

How will questions of **learner engagement shift** as learning becomes filled with gen AI tools and pedagogy for even more immersive, massive, open, blended, visually-based, online, and filled with gen AI?

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### We are entering a jumping off point...

(Audience: South China Normal University)

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### Things are heating up!

113

### The Learning Revolution is coming within reach!

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**Remember...**  
**"I cannot do this alone."**  
 "I cannot do this alone."  
 "I cannot do this alone."  
 "I cannot do this alone."



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**Any Questions or Comments?**  
**Slides at: [TrainingShare.com](https://www.trainingshare.com)** (go to "Archived Talks")  
 Papers: [PublicationShare.com](https://www.publicationshare.com)  
 Free book: <http://tec-variety.com/>  
 Free Course: <https://colcommons.org/welcome/course/details/8>  
 Curtis J. Bonk, IST Professor, Indiana University  
 Email: [cjbonk@indiana.edu](mailto:cjbonk@indiana.edu); <http://curtbonk.com/>

Free!      Free!      Free!      Not Free!



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