

## Time to Wake Up from Our Innovative Learning Dreams and Make Smarter Learning a Reality

Curtis J. Bonk, Professor, Indiana University

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<http://curtbonk.com/>



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## Dreams of Smarter Learning... Center for the Advancement of Teaching Temple University, Paul Blaschko



2

## As technology got smarter...

Remote learning isn't new: Radio instruction in the 1937 polio epidemic

<https://theconversation.com/remote-learning-isnt-new-radio-instruction-in-the-1937-polio-epidemic-543792>



Remote learning isn't new: Radio  
instruction in the 1937 polio epidemic

3

August 31, 2023

How the pocket calculator paved the way for  
the digital age, The Economist

<https://www.economist.com/culture/2023/08/31/how-the-pocket-calculator-paved-the-way-for-the-digital-age>



4

## And even smarter...

April 20, 2023

Learning to code isn't enough

Joy Lisi Rankin, MIT Technology Review

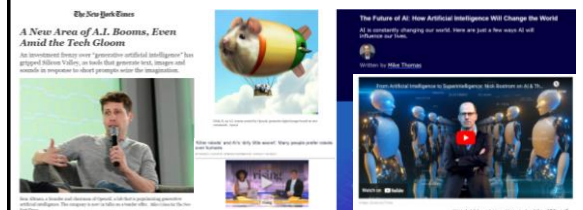
<https://www.technologyreview.com/2023/04/20/1073291/learn-to-code-legacy-new-projects-education/>



5

## January 7, 2023 AI in Business and Society News

<https://www.theguardian.com/education/2023/jan/13/cost-benefit-students-global-south>



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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**  
 Share of work that can be automated, by education level of employees

Education Level	With generative AI	Without generative AI
Master's PhD, or higher (10% of jobs)	12%	10%
Bachelor's degree (22%)	18%	15%
Associate's degree (13%)	25%	20%
Some college (22%)	30%	25%
High school diploma or equivalent (23%)	35%	30%
No high school degree (10%)	40%	35%


**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 Tassl  
 June 14, 2023 at 12:18 AM EDT

AI could replace equivalent of 300 million jobs – report

The worldwide boom in generative artificial intelligence is accelerating productivity and growth, but it also poses a profound disruption for others, primarily knowledge workers, according to a new report by consultants McKinsey.

Generative AI will give humans a new "super economy" a much-needed productivity boost, says a new report by consultants McKinsey.



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




**Can GPT-4 and TikTok usher in a new learning frontier?**  
 By Alex C. Michalos  
 May 19, 2023

**What is ChatGPT? Everything to know about OpenAI's free AI essay writer and how it works**  
 By Alex C. Michalos  
 May 19, 2023

**OpenAI**  
 The importance of teaching generative AI

**How schools can respond to ChatGPT with inquiry-based learning**  
 By Alex C. Michalos  
 May 19, 2023

**The importance of teaching generative AI**  
 By Alex C. Michalos  
 May 19, 2023






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**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).

**Teachers are surprise AI champions**  
 August 10, 2023



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





**Will advances in AI force a push to oral exams?**  
 By Alex C. Michalos  
 May 19, 2023

**ChatGPT: Don't Get Scared, What Does ChatGPT Do for Your Writing Assignments?**  
 By Alex C. Michalos  
 May 19, 2023

**Colleges Race to Hire and Build Amid AI 'Gold Rush'**  
 By Alex C. Michalos  
 May 19, 2023

**Can the Gold Rush in AI be a Gold Mine for Higher Education?**  
 By Alex C. Michalos  
 May 19, 2023

**Caught Off Guard by AI**  
 By Alex C. Michalos  
 May 19, 2023


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**June 13, 2023**  
**U.S. Department of Educational Technology Artificial Intelligence**  
<https://tech.ed.gov/ai-futures-of-teaching-and-learning/>  
[https://zoom.us/webinar/register/WN\\_AYg5kDaQ558ckXZVgwt?registration](https://zoom.us/webinar/register/WN_AYg5kDaQ558ckXZVgwt?registration)

**What is AI?**  
 Artificial Intelligence (AI) is a branch of computer science that aims to create machines that can think, learn, and solve problems like humans. AI is used in many ways, from self-driving cars to recommendation systems. AI is also used in education to personalize learning and improve student outcomes.




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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>

**Guidance for generative AI in education and research**



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

**TEACHONLINE.CA**  
CONTACT NORTH  
NORTH

## Five Steps to Leverage ChatGPT in Your Teaching

March 06, 2023



**TEN FACTS ABOUT CHATGPT**


1. ChatGPT is a conversational AI model trained on a massive dataset of text from the internet, books, and other sources. It can generate human-like text in response to prompts.
2. ChatGPT can be used for a variety of educational purposes, including generating lesson plans, creating quizzes, and providing personalized feedback to students.
3. ChatGPT can be used to create realistic simulations of real-world scenarios, allowing students to practice problem-solving and critical thinking skills.
4. ChatGPT can be used to generate personalized learning paths for individual students, based on their strengths and weaknesses.
5. ChatGPT can be used to create interactive and engaging content, such as quizzes, games, and simulations, which can help to increase student motivation and participation.

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**May 25, 2023**

## Generative AI: Impact on Higher Education

Ray Schroeder, UPCEA Senior Fellow  
<https://sites.google.com/view/unhprentai>



**Generative AI**  
Impact on Higher Education  
Ray Schroeder  
UPCEA Senior Fellow

**Let's ask ChatGPT: What are some creative uses of AI chatbots in education?**

ChatGPT has proven to be a valuable tool in education, offering various creative uses that enhance the learning experience. Here are some examples:


- 1. **Personalized Learning:** ChatGPT can be used to create personalized learning paths for individual students, based on their strengths and weaknesses.
- 2. **Interactive Content:** ChatGPT can be used to create interactive and engaging content, such as quizzes, games, and simulations, which can help to increase student motivation and participation.
- 3. **Real-time Feedback:** ChatGPT can be used to provide real-time feedback to students, helping them to understand their mistakes and improve their performance.
- 4. **Language Learning:** ChatGPT can be used to provide language practice for students, helping them to improve their fluency and understanding of a new language.
- 5. **Research Assistance:** ChatGPT can be used to assist with research, helping students to find relevant information and generate ideas for their projects.

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**July 26, 2023**

## GPT-4 Can Already Pass Freshman Year at Harvard

Maya Bodnick, The Chronicle of Higher Education  
<https://www.chronicle.com/article/gpt-4-can-already-pass-freshman-year-at-harvard>



**GPT-4 Can Already Pass Freshman Year at Harvard**  
Professors need to adapt to their students' new reality — fast.

OpenAI's GPT-4 has passed the first round of the Harvard freshman year admissions exam, according to a report from the company. The exam, which is a challenging test of critical thinking and problem-solving skills, is one of the most rigorous in the world. GPT-4, which is a more powerful version of the company's GPT-3 model, was able to score in the top 10% of the exam, a result that has caused a stir in the academic community.

Harvard University's admissions process is known for being one of the most competitive in the world. Each year, the university receives over 40,000 applications from students around the world. Only a small fraction of these applicants are accepted, and the process is highly selective. The freshman year admissions exam is a key part of this process, and it is designed to test students' ability to think critically and solve complex problems.

GPT-4's success on the exam has raised questions about the future of education and the role of AI in the classroom. Some people are concerned that AI will replace teachers, while others believe that AI can be used to enhance the learning experience. The Harvard admissions exam is a complex task that requires a deep understanding of the subject matter and the ability to think creatively. GPT-4's success on the exam suggests that AI is becoming a more powerful tool in education, and it may have significant implications for the way we teach and learn in the future.

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**September 8, 2023**

## ChatGPT: Your new academic mentor

Niamh Ancell, Cyber News  
<https://cybernews.com/academy/news/chatgpt-your-new-academic-mentor/>

**ChatGPT: Your new academic mentor**

Published on 08 September 2023



ChatGPT, the AI-powered chatbot developed by OpenAI, has become a popular tool for students and researchers alike. It can help with a wide range of tasks, from writing essays to generating code. In this article, we explore how ChatGPT can be used as a new academic mentor, providing personalized guidance and support to students.

ChatGPT is a powerful tool that can be used in many ways. It can help students with their homework, provide explanations for difficult concepts, and even generate code for programming projects. It can also be used to generate ideas for research papers and to help with the writing process. ChatGPT is a versatile tool that can be used by students at all levels of education.

One of the most useful features of ChatGPT is its ability to provide personalized guidance and support. It can adapt to the needs of individual students and provide tailored advice and feedback. This makes ChatGPT a valuable tool for students who are struggling with their studies or who need extra help with a particular subject.


ChatGPT can also be used to generate ideas for research papers and to help with the writing process. It can provide suggestions for topics to explore and help students to organize their thoughts and ideas. ChatGPT is a powerful tool that can be used in many ways, and it has the potential to revolutionize the way we learn and teach.

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**February 4, 2023**

## ChatGPT for language learning – All the prompts you need

Theodosis Karageorgakis, Educraft  
<https://educraft.tech/chatgpt-in-the-language-learning/>



**ChatGPT for language learning – All the Prompts you need**

ChatGPT is a powerful tool for language learning, providing a wide range of prompts and exercises to help students improve their skills. In this article, we explore the various prompts and exercises that can be used with ChatGPT for language learning, and how they can be used to enhance the learning experience.

ChatGPT is a versatile tool that can be used in many ways. It can help students with their homework, provide explanations for difficult concepts, and even generate code for programming projects. It can also be used to generate ideas for research papers and to help with the writing process. ChatGPT is a powerful tool that can be used in many ways, and it has the potential to revolutionize the way we learn and teach.

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**May 25, 2023**

## Teach Languages with ChatGPT

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



**Teaching languages with ChatGPT**

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 language you are studying. ChatGPT can provide information on customs, traditions, and social norms.

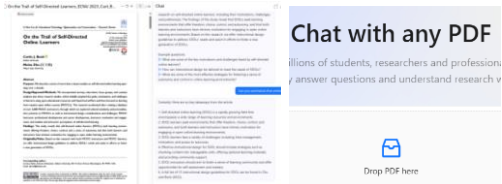
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## August 21, 2023

### ChatPDF: Summarize assigned articles

[https://courtsbook.com/R522\\_online\\_syllabus\\_Fall\\_2023.htm](https://courtsbook.com/R522_online_syllabus_Fall_2023.htm)

Input one or more of the assigned articles and have ChatPDF generate questions on it or key points or both.



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## July 11, 2023

### Anthropic releases Claude 2, its second-gen AI chatbot

(Claude 2's emphasis on better reasoning and logic skills fit, higher test scores, etc.)

<https://bard.google.com/>  
<https://voicobot.ai/2023/07/12/anthropic-introduces-upgraded-generative-ai-chatbot-claude-2/>  
<https://www.youtube.com/watch?v=XYE2JA-CLgw>

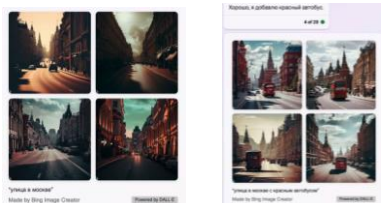


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## June 7, 2023

### Learn new words through images by making suggestions for things to add or change

<https://ftmag.com/discovering-the-potential-of-bing-chat-for-language-learning/>



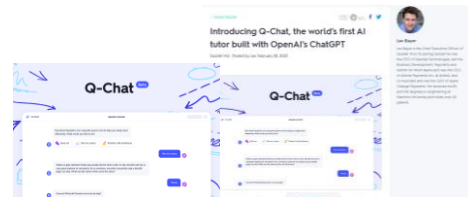
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## February 28, 2023

### Intelligent Assessment and Tutoring

Introducing Q-Chat, the world's first AI tutor built with OpenAI's ChatGPT, Lex Bayer, Quizlet

<https://guidet.com/blog/meet-q-chat>



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## May 25, 2023

### Chat with heyapi; especially good for social/emotional/burnout support

<https://heyapi.com/talk>

Talk to Pi,  
your personal AI

heyapi.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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## May 24, 2023...AI AI AI

### See why AI like ChatGPT has gotten so good, so fast (bigger and better datasets, GPU Speed)

Franshu Verma & Kevin Schaul, Washington Post



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**April 22, 2023**  
**In UNESCO "Quick Start Guide to ChatGPT and AI in Higher Education"**

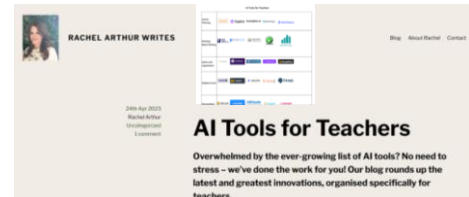
[https://www.unesco.org/en/content/cyberhub/2023/04/ChatGPT-and-Artificial-Intelligence-in-Higher-Education-Quick-Start-guide\\_26\\_2304-en](https://www.unesco.org/en/content/cyberhub/2023/04/ChatGPT-and-Artificial-Intelligence-in-Higher-Education-Quick-Start-guide_26_2304-en)

Role*	Description	Example of implementation
<b>Possibility engine</b>	AI generates alternative ways of expressing an idea	Students write queries in ChatGPT and use the Regenerate response function to examine alternative responses.
<b>Socratic opponent</b>	AI acts as an opponent to develop and argument	Students enter prompts into ChatGPT following the structure of a conversation or debate. Teachers can ask students to use ChatGPT to prepare for discussions.
<b>Collaboration coach</b>	AI helps groups to research and solve problems together	Working in groups, students use ChatGPT to find out information to complete tasks and assignments.
<b>Guide on the side</b>	AI acts as a guide to navigate physical and conceptual spaces	Teachers use ChatGPT to generate content for classes/courses (e.g., discussion questions) and advice on how to support students in learning specific concepts.
<b>Personal tutor</b>	AI tutors each student and gives immediate feedback on progress	ChatGPT provides personalized feedback to students based on information provided by students or teachers (e.g., test scores).

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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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**The Career Curriculum Continuum**  
**Andrew Hermalyn, Inside Higher Ed**

<https://www.insidehighered.com/digital-learning/article/2020/03/12/new-universities-can-stay-center-learning-focus-continuum>

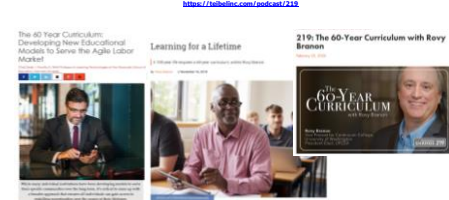


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**February 25, 2020**  
**The 60 Year Curriculum:**  
**Developing New Educational Models to Serve the Agile Labor Market**  
**Chris Dede, Harvard University, The Evollution**

<https://evollution.com/newsroom/evolution-of-the-60-year-curriculum-developing-new-educational-models-to-serve-the-agile-labor-market/>

**219: The 60-Year Curriculum with Rovy Branon**



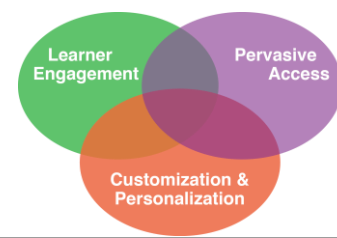
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**Wake Up to Your Dreams**

Transform Your Relationships, Career, and Health While You Sleep

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**30+ Ways Learning is Changing:**  
**The Mega Trends**



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## How Learning is Changing: Mega Trend #1. Learner Engagement

social  
mobile hands-on  
visual touch-sensored  
game-based adventurous  
digital & resource rich  
immersive  
collaborative

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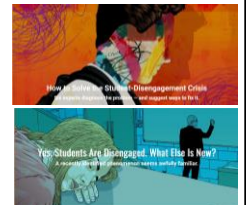
## November 3, 2022 Still Struggling With Engagement? You're Not Alone

Beth McMurtrie, The Chronicle of Higher Education

<https://www.chronicle.com/newsletter/teaching/2022-11-03>

### Still Struggling With Engagement? You're Not Alone.

By Beth McMurtrie



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July 15, 2023

## A Time for Learning Experience Designers, Niels Floor, The Netherlands

[https://evolution.com/programming/program\\_planning/a-time-for-learning-experience-designers-2/](https://evolution.com/programming/program_planning/a-time-for-learning-experience-designers-2/)

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



Episode 159 - Is it Time to Lead or About Time We Lead? Learning Experience Design & Personalized Learning



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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/mhucinarai/R511-Fall-2023-getting-to-know-one-another-whyhgtscqkfmun>

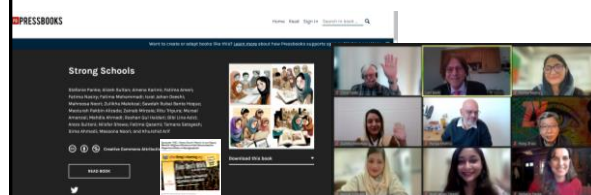


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February 15, 2023

## Learning is More Collaborative Strong Schools, Afghani Women Asian University of Women

<https://download.strongschools.org/Strong-Schools-1674597042.pdf>



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June 15, 2022

## Learning is More Mobile Leaders & Legends of Online Learning, Dr. Mark Nichols' Podcast

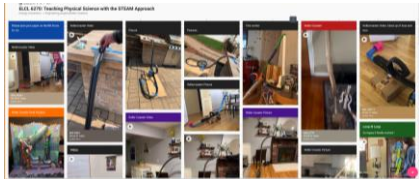
<https://onlinelearninglegends.com/podcast/062-dr-george-voletislavos/>  
In this episode, Open Polytechnic of New Zealand Executive Director Dr. Mark Nichols chats with Dr. George Voletislavos, Royal Roads University in Victoria, British Columbia. George talks about his history and research in online education, and his ongoing challenges to the false dichotomy of online and in-person learning.



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**March 21, 2021****Learning is More Digitally Rich**

ELCL 6270: Teaching Physical Science with the STEAM Approach  
 Heejung An, William Paterson University  
 Hands-on, Minds-on, Social-on: A Collaborative Maker Project Integrating Arts in a  
 Synchronous Online Environment for Teachers  
<https://link.springer.com/article/10.1007/s11528-022-00740-x>  
 Based on the Thinking, Making, Sharing, and Reflecting (TMSR) model



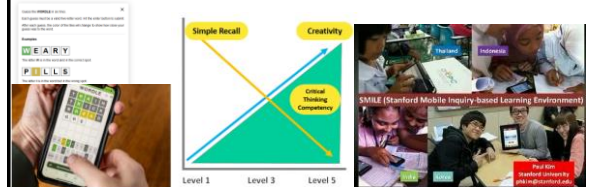
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**June 6, 2022****Learning is More Game-based**

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/21>



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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/tech-innovation/teaching-learning/2023/07/11/metaversities-face-virtual-learning-financial>

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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**August 31, 2023****Learning is More Immersive**

How immersive technology can empower students (and teachers) to learn

McGraw-Hill Education, eSchool News

Video (3:03): [https://www.youtube.com/watch?v=m\\_Cop8xt1-g](https://www.youtube.com/watch?v=m_Cop8xt1-g)

<https://curtbonk.com/tect2023.html>

<https://www.eschoolnews.com/features/2023/08/31/immersive-technology-empower-students-teachers/>



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**April 18, 2023****Learning is More Immersive**

Holograms in Higher Education are Boosting Student Engagement

Susan Fortane, Fierce Education

<https://www.fierceeducation.com/technology/holograms-higher-education-are-boosting-student-engagement>

Holograms in Higher Education are Boosting Student Engagement



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**Time to Wake Up!**

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## How Learning is Changing: Mega Trend #2. Pervasive Access



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**October 20, 2022**

## Stanford Report Says Emergency Remote Instruction Led to 'Shift' in University's Identity

Jeffrey Young, EdSurge

<https://www.edsurge.com/news/2022-10-20/stanford-report-says-emergency-remote-instruction-led-to-shift-in-university-identity>



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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>

These online classes can help you earn money from home: Digital marketing, video production, coding

A Surge in Young Undergrads, Fully Online



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**November 4, 2022**

## Learning is More Synchronous

Synchronous hybrid English class for rural Chinese students



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**January 25, 2023**  
**Learning is More Video-based...**

## YouTube-iversity, ASU

Susan D'Agostino, Inside Higher Ed

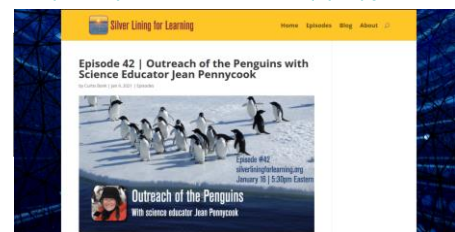
<https://www.insidehighered.com/news/2023/01/25/arizona-state-turns-youtube-reach-learners-margins>



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**Learning is More Video-based...**  
**Silver Lining for Learning**

[https://www.youtube.com/channel/UC9Xesh89qr1lpMvPQt\\_aA/live](https://www.youtube.com/channel/UC9Xesh89qr1lpMvPQt_aA/live)



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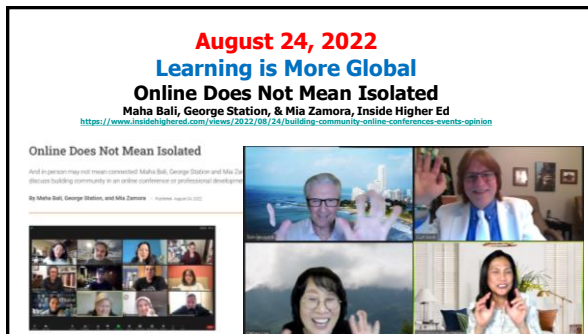




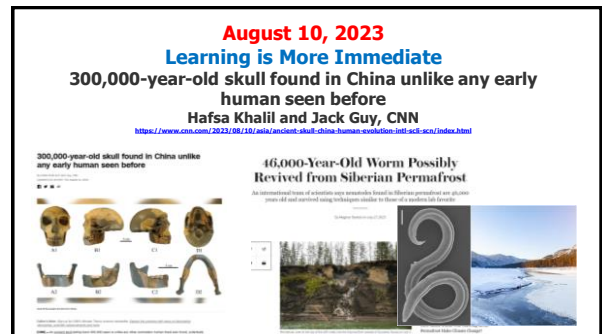
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**February 4, 2022**  
**Learning is More Free and Open**  
 California 2-Year Colleges to Begin \$115M OER Experiment  
 Suzanne Smalley, Inside Higher Ed (results in better grades, lower costs)  
<https://www.insidehighered.com/news/tech-innovation/teaching-learning/2022/02/04/california-two-year-colleges-begin-115-million-open-educational-resources-experiment>  
<https://www.insidehighered.com/news/tech-innovation/teaching-learning/2022/02/04/california-two-year-colleges-begin-115-million-open-educational-resources-experiment>  
 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 \$42,912.82 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  
 The California Community College Chancellor's Office will award funds to the state's 10 community colleges to create new open educational resources, thereby lowering costs.

Newsom calls textbooks "racket," proposes money to create free ones



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**September 7, 2023**  
**More Professors Aware of, and Using, Open Educational Resources**  
 Lauren Coffey, Inside Higher Ed  
<https://www.insidehighered.com/news/tech-innovation/teaching-learning/2023/09/07/more-faculty-are-aware-and-using-open-educational-resources>

More Professors Aware of, and Using, Open Educational Resources

Students learn better from print materials than they do from digital



Group	Strongly Agree	Agree	Neither Agree nor Disagree	Disagree	Strongly Disagree
Administrators	8%	24%	60%	17%	2%
Faculty	15%	20%	44%	17%	4%


56

**Introducing the TEC-VARIETY Model**  
<http://tec-variety.com/>  
<http://tec-variety.com/TEC-VARIETY-Chinese.pdf>  
 Free book available: <http://hdl.handle.net/11599/1481>

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


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

**Motivating and Supporting Online**



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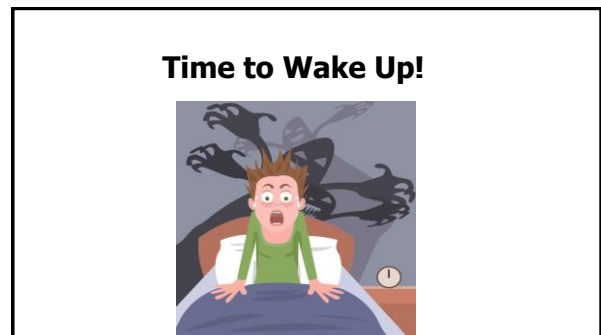
**Special Issue on Online Learning Research**  
 Martin, F., Dannen, V. P., & Bonk, C. J. (Eds.). (2023). **Special Issue: Systematic Reviews of Research on Online Learning.**  
 Online Learning Journal, 27(1). DOI: <http://dx.doi.org/10.24059/olj.v27i1.3887>  
 Entire issue with cover: <http://www.publicationshare.com/24>  
 EdTechBooks: DOI: [10.24059/olj.v27i1.3887](https://doi.org/10.24059/olj.v27i1.3887)



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



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**June 6, 2022**

## Learning is More Blended

**Why Notre Dame is boldly pushing ahead on blend of live and remote learning**

Chris Burt, University Business

<https://universitybusiness.com/why-notre-dame-is-boldly-pushing-ahead-on-blend-of-live-and-remote-learning/>



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**June 17, 2021**

## Learning is More Blended

**Free Book: Hybrid-Flexible Course Design (HyFlex Teaching)**

<https://edtechbooks.org/hyflex>



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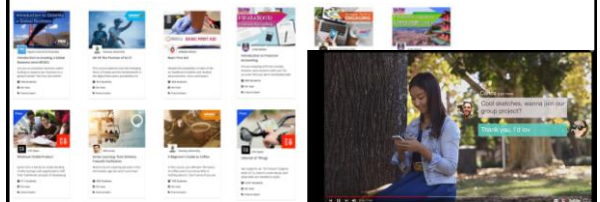
## Learning is More Self-Directed

**The LMS Market is Quickly Losing Ground**

Carol Leaman, CLO

<https://www.openlearning.com/>

<https://www.openlearning.com/>



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## Learning is More Self-Directed

**Language Lessons Online**

e.g., BBC Learning English, Duolingo, Babbel, SpanishPod, etc.  
(Zixi Li & Curt Bonk, 2023 published, Duolingo Research)

<http://www.bbc.co.uk/learningenglish>



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**May 21, 2023 & June 13, 2022 (Khan World School)**

## Learning is More Personalized

**Behind Khan Academy And Arizona State University's Khan World School Launch, Michael B. Horn, Forbes**

<https://www.forbes.com/sites/michaelhorn/2022/06/13/behind-khan-academy-and-arizona-state-universitys-khan-world-school-launch/>

At present, the Khan World School is drawing interest from students around the world. The school will be free for students in Arizona by taking advantage of ASU's charter school. But for those locations where it isn't a public option, Khan said, that they will be able to offer the school for less than \$10,000.

The Khan World School is aiming to tackle that stereotype with a daily, synchronous online where students debate topics that often aren't discussed in schools—things like "Will the Fed be able to control inflation?"



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**June 6 and 27, 2022**  
**Microcredentials and Certificates**  
 Susan Manning, Ed.D, Director of Customer Education, Credly, eSchool News  
<https://learn.gomwbe.com/about>

The infographic features two main sections. The top section, 'The macro impact of microcredentials', includes a quote from Susan Manning, Ed.D, Director of Customer Education, Credly, dated June 5, 2022: 'By pairing microcredentials with digital credentials, we are preparing for a changing workforce and creating a big impact in three key ways.' The bottom section, '3 reasons microcredentials are poised to go mainstream', includes a quote from Emily Clark, Chief Strategy and Growth Officer, AEC, dated June 27, 2022: 'Our understanding of learning and work has started to change—our understanding of credentials must now evolve, too.' The infographic also includes a 'MICRO-CREDENTIALS' logo and a book cover for 'THE GREAT UPHEAVAL' by Arthur Levine and Scott Van Pelt.

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

August 03, 2023

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

By Lindsay Dougherty

The pie chart shows the following distribution of preferred education options over a six-month period:

- Skills training\*: 37%
- Nondegree credential\*\*: 25%
- Associate degree: 12%
- Bachelor's degree: 16%
- Graduate degree: 10%

The infographic also includes a 'MICRO-CREDENTIALS' logo and a quote from Lindsay Dougherty: 'Closing the skills gap with nondegree credentials'.

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**August 27, 2020**  
**Alternative Credentials on the Rise**  
 Paul Fain, Inside Higher Ed  
<https://www.insidehighered.com/news/2020/08/27/alternative-credentials-will-be-sustained>

edX Expands MicroMasters Programs With Data Science, Digital Leadership and More

The line graph shows the growth of alternative credentials from 2012 to 2019. The Y-axis represents the index (2012 = 100) and the X-axis represents the year. The graph shows four lines: Total enrollment (blue), Non-Degree Certificate (green), Degree Certificate (red), and Graduate (purple). The Total enrollment line shows a steady increase, while the other three lines show a more rapid increase starting around 2015.

Sources: Moody's, U.S. Department of Education

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**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/mooc-stats-and-trends-2021/>

**Growth of MOOCs**

The line graph shows the growth of MOOCs from 2012 to 2021. The Y-axis represents the number of courses and the X-axis represents the year. The graph shows a steady increase in the number of MOOCs over the decade.

By the Numbers: MOOCs in 2021  
 Statistics do not include China

- 220M Students
- 19.4k Courses
- 1670 Microdegrees
- 70 MOOC-based Degrees

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**Learning is More Massive**  
 Marianne Krasny at Cornell et al., 2020  
**Courses for a Cause:**  
 MOOC Contributions to a "Better Place for All"

The first photograph shows a group of students sitting on the ground in a field, engaged in a learning activity. The second photograph shows a group of students standing in a body of water, possibly a pond or lake, engaged in a learning activity.

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**Baman Kumar Ghimire and Bishwa Raj Gautam, 2020**  
**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.

The photograph shows a group of students and teachers standing in front of a school building. The students are holding certificates, and the teachers are standing behind them.

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

(72 content so far, mostly from Coursera). A Grade 10 student from a public school where English is taught only for about 5 hours a week, he already jumps into any course he finds suitable probably 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 I
5. Stanford Introduction to Food and Health
6. Luther and the West
7. Power: Understanding
8. AI in Health: More than just an electric report
9. Improving your statistical relevance
10. Global Health Policy
11. English for Health Learning
12. Code Yourself An Introduction to Programming
13. Behavioral Finance
14. English For Journalism
15. Teach English Now! 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. Neuroscience and Epigenetics, Part I
22. Assessment For Learning
23. Big History: Connecting Knowledge
24. The Science of Stem Cells



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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/tempos-stanford-online-course-free-online/>  
Alcino Donadel, University Business  
<https://universitybusiness.com/how-to-democratize-education-stanford-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**

Stanford University's free online course, 'How to 'democratize education'', has gained 30,000 students in 3 years, according to a new report from the university's Center for Innovation and Entrepreneurship.

When it comes to high-earning potential, degrees in data and computer science are among the hottest assets a bachelor's student can own. Specifically, a computer science degree from Stanford is the sixth best for high pay, according to the MIT College and Career Survey.

As prestigious and exclusive as degrees from Stanford may be, that hasn't stopped two professors from creating 'Code in Place', a free online intro to coding course that is being offered for the second time since the coronavirus pandemic began. (Image credit: Andrew Beaudin)



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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/567987472?embedded=true&source=vimeo\\_logo&owner=13453234](https://vimeo.com/567987472?embedded=true&source=vimeo_logo&owner=13453234)  
<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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**MOOC books (2020) and (2015)**

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**30+ Ways Learning is Changing:**  
**Recapping the Three Mega Trends:**  
**Engagement, Access, and Customization**




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**Poll:**  
**Is this an Evolution or Revolution?**



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## Time to Wake Up!



85

## A Dozen Questions for Smart Learning Environment Educators and Researchers...



86

### Dreams of Smarter Learning...

1. What professional development opportunities are available for teachers to effectively utilize the smart learning environment?



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### Dreams of Smarter Learning...

2. What types of data are collected and analyzed within the smart learning environment to inform instructional decisions?



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### Dreams of Smarter Learning...

3. How will questions of learner engagement shift as learning becomes more immersive, massive, open, blended, visually-based, and online?



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### Dreams of Smarter Learning...

4. What means of automatic translation will exist in a decade? How much will you rely on it each day to function with international collaborators and documents in other languages?



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### Dreams of Smarter Learning...

5. How can educational agents and chatbots, OER, robots, immersive worlds, etc., effectively be embedded in society to continue to foster learning as people increasingly live to age 80 or 90 or 100 or beyond?



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### Dreams of Smarter Learning...

6. What will the definition of "smart" be in 5 or 10 years? How about 20 years? 50 years? 100 years? Beyond?



92

### Dreams of Smarter Learning...

7. How much data is too much data? Will instructors have information filtering and restriction devices embedded in their learner information dashboards? And, if so, will they be allowed to use them?



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### Dreams of Smarter Learning...

8. How will we know or recognize when we have arrived at a smarter stage in the evolution of learning environments? What will each signal tell us and what will be the signals at each stage?



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### Dreams of Smarter Learning...

9. Is machine centered pedagogy now being cloaked under the guise of personalizing learning?



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### Dreams of Smarter Learning...

10. Will teacher training programs need to be revamped to teach teachers how to adjust their strategies and approaches based on vast as well as minute individual differences?



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### Dreams of Smarter Learning...

11. How smart must a learner be to take advantage of SLEs? Is there a threshold level of metacognitive skill required? Who will research and fashion SLEs for learners at different developmental levels or stages?



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### Dreams of Smarter Learning...

12. What will this conference look like and emphasize in 5, 10, 20, or 50 years? i.e., Where will this field of SLEs make the greatest contributions to society?



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## Are we getting smarter...?



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

(Audience: South China Normal University)



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## Things are heating up!



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## The Learning Revolution is coming within reach!



103

## 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](http://TrainingShare.com) (go to "Archived Talks")

Papers: [PublicationShare.com](http://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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