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AI in EdTech Weekly

2026-06-29

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By AI in EdTech Weekly • June 29, 2026

AI in education is moving away from generic chat toward grounded study tools, district-tuned systems, and more explicit guardrails. This week's coverage also sharpened the evidence on productive struggle, surfaced new scaling claims from Alpha School, and widened the debate from AI literacy to human skills.

Grounded AI is becoming the product default

The biggest shift this week was structural, not model-related: new education tools are increasingly being tied to course materials, district resources, and specific workflows instead of handed over as open chatbots. Gemini's new study notebooks are grounded in class materials, start with a diagnostic quiz, build bite-sized interactive lessons, update based on follow-up quiz results, and roll out globally on the web at no cost. They also sync sources and chats with NotebookLM. [1, 2, 3, 4]

NotebookLM, meanwhile, added fully customizable flashcards so learners can edit questions and answers, add new cards, and share sets with classmates. [5]

At the institution level, the pattern is even clearer. MagicSchool says a Georgia state audit found 58% of teachers have used its product, and the company has now added district-level controls to ground AI in local resources. Brisk presented a similar idea through "Curriculum Intelligence" built from district guidance and curriculum libraries, while TrekAI positions itself as a supervised "learner's permit" and Lightspeed gives districts visibility into what AI tools students are already using. [6, 7, 8, 9]

Higher ed is testing the same move with different infrastructure. Denison built a token-priced multi-model environment with 17 models for students, faculty,

and staff, and requires incoming students to complete a foundational AI course focused on ethics and use. [10]

These launches are promising, but they are still mostly product rollouts and operational examples rather than independent proof of better learning. Access is also uneven: Gemini says mobile and school-issued accounts are coming later this summer, and district or campus systems depend on local setup, policy, and budget. [4, 7, 10]

The learning design principle is getting clearer: don't remove the struggle

This week's strongest research signal was practical: AI helps most when it guides thinking instead of collapsing it. In Ghana, the Rori tutor produced an effect size of 0.36 at about $5 per student by giving hints and guidance before solutions. A Carnegie Mellon study found answer-giving chatbot use tracked with worse exam performance, while answer-withholding proof review tracked with better outcomes. In a GPT-4 field experiment with nearly 1,000 high-school math students, the answer-giving version led to 17% worse later exam scores without AI than the control group, while a safeguarded version avoided that drop. A UK RCT from Google, LearnLM, and Eedi found AI support increased novel problem-solving by 5.5 percentage points over human tutors alone. [11]

> "Ask me one question at a time, waiting for my answer in between, to help me think through this problem, to help me discover angles I haven't thought of." [12]
>
> *#332: Most People Are Using AI Wrong, Are you? (19:26)*

That advice from Mindstone's Joshua mirrors the research trend: use AI as a

thinking coach, not a search replacement or answer machine. [12, 13]

The limitation matters just as much. One physics-feedback system was wrong in about one case in five, and even very strong students often failed to spot those errors. The broader evidence still supports a narrower claim than the market sometimes implies: AI reliably improves performance while learners have access to it, but durable unassisted retention and transfer remain unsettled. Rich scaffolding also helps weaker learners more than stronger ones, which means the same design will not fit every student. [11]

Alpha is trying to turn AI-native schooling into a scalable schedule

New Alpha School interviews pushed the conversation beyond tutoring and toward full schedule redesign. The model uses AI to assess knowledge gaps, keep students working at roughly 80-85% difficulty, and compress core academics into a two-hour daily sprint with no homework. Alpha says that model has produced 2.6x faster learning, top 1-2% performance, and an average SAT of 1535 for 11th graders. [14]

The more distinctive claim is about motivation. Alpha's founders argue that motivation is "90% of the solution," and say "Time Back" lets students spend afternoons on workshops, sports, entrepreneurship, and life skills. They report that 96% of students say they love school, while guides focus on one-to-one motivation and support rather than lectures and grading. [14, 15, 16]

This Founder Says AI Can Educate a Billion Kids | Alpha School (1:13)

The new scaling detail is access. Alpha says AI costs are falling from about $10,000 per student toward the hundreds, and it is using Texas vouchers to expand through sports academies and gifted programs while planning inner-city public-school pilots in Texas. Its longer-term goal is a tablet-based product priced below $1,000 that can teach a full curriculum in under two hours a day. Those public-school pilots are still upcoming, with the founder saying the data will be published when they open. [14, 15]

Trust, bias, and policy are moving to the center

The policy story this week was not faster adoption but slower, more contested adoption. New York City delayed final AI guidance until later this summer after its March draft drew nearly 6,500 comments and broader backlash. The draft used a traffic-light framework that banned AI for assessments and grading while allowing lower-risk uses such as brainstorming lesson plans, but it said little about student use. Officials are now considering age-based expectations as they try to prepare older students for an AI-present world without letting AI replace their thinking. [17]

Bias concerns are getting harder to dismiss as abstract. Victoria Hedlund reported that AI explained a simple science concept with more scaffolding but less technical rigor to girls than boys, awarded lower marks to "Victoria Hedlund" than "Victor Hedlund" on the same GCSE history paper, and gave girls more discouraging physics career advice than boys with the same qualifications. She also argued that names, locations, and inferred socioeconomic context can lower the level of challenge an AI tutor offers, and that the frequency of AI interaction can expose students to bias far more often than a human teacher would. [18]

The operational response is becoming clearer: minimize identifying inputs, avoid using AI for marking or detectors without strong evaluation, and treat outputs as results to inspect rather than conclusions to trust. That lines up with broader guidance from Tech & Learning, where Microsoft's Matt Jubelirer argued that AI literacy now goes beyond prompting to judging capabilities, context, and ethical use, and that grading still requires human judgment. [18, 19]

> "We don't want humans in the loop. We want humans in the lead." [20]

That same principle is showing up in product architecture. e-Literate argues that multi-agent AI can fit academic work because it mirrors teams of specialists, but each extra agent adds token costs and lossy context handoffs, making large-scale deployment harder to budget and audit. [20]

The AI literacy debate is widening into a human-skills debate

A second strategic shift this week was philosophical. Justin Reich argued that education still lacks evidence on what effective AI literacy practice actually is, and that many early frameworks repeat the same mistake schools made with web literacy: packaging a lofty new skill bundle before expert practices are clear. In his view, domain expertise may matter more than generic knowledge about how large language models work, so schools should run local experiments and compare evidence of learning rather than assume a ready-made AI literacy playbook exists. [21]

At the same time, industry voices are shifting from "teach AI" to "teach the human capabilities AI makes more valuable." Executives speaking to educators emphasized collaboration, resilience, communication, negotiation, leadership, critical inquiry, and ethical reasoning as future-proof skills, even as employers and coalitions like RAISE US push AI-enabled training and workforce transition support. [22, 23, 24]

For lifelong learners, Andrew Ng's advice was notably old-fashioned in the best way: start with efficient coursework, then build small projects, take handwritten notes to improve retention, and make learning a regular habit rather than a burst activity. [25]

What This Means

- **For K-12 systems:** the near-term winners are likely to be grounded tools with clear guardrails, visibility, and age-appropriate rules—not open-ended chat alone. District leaders have more reason to prefer tools tied to curriculum, local resources, and data-minimization standards. [7, 26, 17]
- **For higher ed:** AI literacy is looking less like a single standards document and more like a sequence of local experiments, explicit policies, and assessment redesign. The bar for using AI in grading or high-stakes judgment should stay high. [21, 18]
- **For teachers and learning designers:** this week's evidence again favored AI as a critic, coach, or draft partner over AI as an answer source. Study notebooks, guided tutoring, and structured planning are moving faster than fully automated teaching. [2, 12, 11, 27]
- **For learners and workforce teams:** structured AI tools can make practice easier to start, but they do not remove the need for error-checking, domain knowledge, and regular study habits. [5, 11, 25]
- **For investors and product builders:** demand is moving toward grounded, workflow-specific AI, but bias evaluation, cost control, and proof of learning impact are becoming as important as model quality. [9, 20]

Watch This Space

- **Grounded consumer study stacks:** Gemini's study notebooks, NotebookLM's editable flashcards, and free AI tools from Khan Academy, CK-12, and Pear Start all point to a more structured self-study layer emerging on top of general-purpose models. [1, 2, 5, 28]
- **Public-school and lower-cost AI-native models:** Alpha's planned Texas public-school pilots and its tablet-based mass-market ambitions are worth tracking if they move from founder claims to published data. [14]
- **Bias audits and age-based governance:** NYC's delayed rewrite and Hedlund's experiments suggest next-wave policy will focus less on blanket approval or bans and more on age, data minimization, and bias exposure. [17, 18]
- **Agentic systems with humans in the lead:** multi-agent course design and support tools are advancing, but whether institutions can afford them at scale remains open. [20]
- **Human-skill-first workforce learning:** the tension between AI fluency and durable human skills is likely to shape both curriculum design and employer training over the next cycle. [22, 23]

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