



Imprinting a Cooperative Footprint in our Communities

Does Technology Make Us Dumb?

The Role of Technology in
Learning

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Beyond the Fear:

Leveraging Tech & AI for Supercharged Learning

You might have seen the title that grabbed your attention – something about whether tech is making us... well, less sharp. It's a provocative question, certainly designed to spark thought. And it touches on a genuine anxiety many feel as technology, particularly AI, becomes more integrated into our lives and our learning environments.

Today, however, we're not here just to debate the potential downsides. We're here to flip the script. We're going to explore how, with intention and smart design, these very tools – calculators, computers, the internet, and especially AI – can become powerful allies, not adversaries, in making our students and employees *more* capable, *more* creative, and *more* critically minded than ever before.

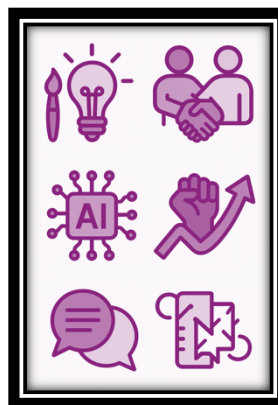
Think back. People worried calculators would kill math skills, the internet would kill research skills. What actually happened? The tools changed *how* we apply those skills, freeing us up for higher-level thinking if we adapted our methods. We are at a similar inflection point with AI.

Now let's explore some actionable strategies and approaches. Specifically, our goals are captured in three key outcomes for you:

- **Outcome 1:** Identify actionable strategies for designing tech-enhanced learning experiences.
- **Outcome 2:** Explore methods for leveraging AI to cultivate essential future-ready skills (creative problem-solving, collaboration, communication, resilience).
- **Outcome 3:** Discover how to implement AI-powered Socratic approaches to foster deep critical thinking.

PRACTICE

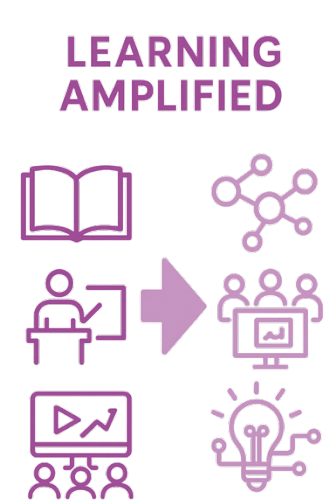
- **P** - Problem-solving
- **R** - Resilience
- **A** - Adaptability / Agility
- **C** - Creativity
- **T** - Teamwork
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We'll move through these outcomes and look at some practical ideas. Let's dive in!

Outcome 1:

Strategically Design Learning Experiences Amplified by Technology



Tech as an Amplifier, Not a Replacement

Our first outcome is about using technology strategically to *amplify* learning design. The key word here is "strategically." It's not about using tech for tech's sake, but to achieve learning outcomes that are difficult or impossible with traditional methods alone.

Think about the evolution: from chalkboards to projectors, to computers in labs, to laptops, smartphones, and immersive realities. Each step offered new possibilities.

Instead of asking "How can I put this lecture online?" ask "How can technology enable learners to *experience* this concept? How can it provide personalized practice? How can it connect learners?"

Strategies for Tech-Enhanced Design

- **Design for Engagement:** Use interactive simulations, gamification elements, virtual labs, multimedia content to capture attention and promote active participation.
- **Design for Personalization:** Leverage Learning Management Systems (LMS) data, adaptive learning paths, and recommendation engines to tailor content and pace to individual learner needs and progress.

LM Notebook case study

- **Design for Collaboration:** Utilize online forums, shared documents, video conferencing tools, and collaborative platforms for group projects and peer-to-peer learning.
- **Design for Accessibility:** Ensure content is accessible via screen readers, captions, alternative text, and adaptable interfaces, reaching a wider range of learners.
- **Design for Practice & Feedback:** Implement online quizzes with immediate feedback, automated coding exercises, language learning apps with voice analysis, or virtual environments for skill rehearsal.
- **Design for Authentic Application:** Use simulations, case study platforms, or virtual reality to allow learners to practice skills in realistic contexts before

applying them in the real world (either in the workplace or real-life academic scenarios).

The core principle is putting pedagogy first. What learning outcome do you want? *Then*, identify the technology that can best help you achieve it in a powerful, engaging, or efficient way. This moves us beyond basic information delivery to creating rich, interactive learning *experiences*.

Think about how you can use data from these platforms. Analytics can show you where learners are struggling collectively or individually, allowing you to intervene effectively. This is data-driven instructional design in action.

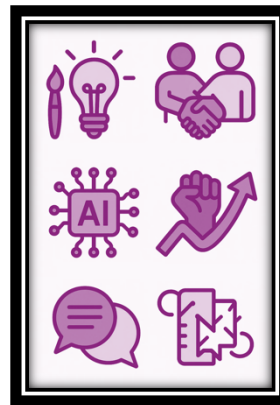
Outcome 2:

Leveraging AI to Cultivate Essential Future-Ready Skills

What are the critical skills, current missing, but will ALWAYS be needed?

PRACTICE

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Let's explore a personal story.



It feels like just yesterday, but it was probably closer to ten years ago now, that I started noticing a troubling pattern in my consulting business. I was working with a variety of organizations, and simultaneously, I had young college students interning with me. Across the board, a similar concern kept surfacing: these bright, young people weren't arriving in the workplace equipped with the fundamental skills and attitudes needed to really thrive.

I started to wonder why this was happening. It jogged my memory back to an informal survey I'd done years before. I'd spoken to about a hundred highly successful high school students and posed a simple question: If you point to just one thing that was the single biggest contributor to your success, what would it be? I expected answers about hard work, going the extra mile, or maybe just good old punctuality with assignments.

But that wasn't what I heard. Instead, over 75% of them gave me variations of the same response: "I gave the teacher what they wanted." It was a jolt. They weren't focused on the intrinsic value of learning; their success, in their own words, was about deciphering expectations and delivering what they believed would earn them the grade. It was about pleasing the teacher, not necessarily mastering the material or developing genuine understanding.

This realization was more than a little distressing. It highlighted a potential gap in how we were preparing young people. So, I began to identify what I saw as the five critical attributes that seemed to be lacking in this rising generation: creativity, problem-solving, teamwork, communication, and resilience. These felt like the bedrock of success in any dynamic environment, skills that went beyond rote learning or simply following instructions.

What struck me, and honestly, validated my concerns in a significant way, was what happened a year or two later, around 2012. A prominent learning and development membership organization released a comprehensive study. I remember reading it and feeling a sense of eerie familiarity. Their well-conducted research had arrived at the exact same conclusion I had, identifying the very same missing attributes in the emerging workforce.

And the years since have only solidified these findings. More and more studies have echoed that initial discovery, underscoring the growing deficit in these core skills. Now, with advanced technology becoming increasingly embedded in both education and the workplace, these attributes – creativity to innovate with new tools, problem-solving to navigate complex digital landscapes, teamwork to collaborate remotely, communication across diverse digital platforms, and resilience to adapt to constant technological change – are more crucial than ever.

This brings me to the ever-present concern: that while technology offers incredible potential, it also has the power to further erode these essential human capabilities if we're not mindful. The big question that continues to occupy my thoughts is this: how do we intentionally leverage technology to cultivate and enhance these vital attributes in the rising generation, rather than allowing it to diminish them?

AI: Your Partner in Building Essential Skills



The first tremors of the quake were small, almost quaint. They called them "calculators." Whispers turned into shouts in school staff rooms: "Children won't learn! They'll forget how to add! Basic math skills, gone!" Fear, a cold knot of anxiety for the future generation's fundamental competence, drove educators not to ban the machines entirely (though some tried), but to rethink *how* math was taught. The focus shifted, grudgingly at first, from rote computation to conceptual understanding, problem-solving, and using the tool effectively. The fear of intellectual atrophy pushed a pedagogical evolution.

Then came the hum of the computers. The whispers grew into a roar across industries: "They're taking our jobs! Automation will leave millions idle! What is human work anymore?" This was a tidal wave of existential dread, a fear for livelihoods and societal structure. This fear fueled retraining initiatives, sparked new educational pathways, and ironically, birthed entirely new fields – programming, network administration, digital design – jobs that hadn't existed before the fear demanded adaptation. The panic didn't stop the machines, but it spurred a massive, if often painful, workforce transformation.

Before that wave fully receded, another crest appeared: the Internet. "It's making us dumb!" cried voices from studies and op-eds. "Short attention spans! Superficial knowledge! We're drowning in data but starved for wisdom! Critical thinking is dead!" This fear was more insidious, targeting the very nature of thought. It didn't lead to turning off the routers for long, but it forced a new kind of literacy – digital literacy, information evaluation, the ability to navigate chaos. The fear of cognitive shallowness pushed efforts to teach discernment and critical engagement with an overwhelming flood of information.

Now, the earth doesn't just tremble; it groans under the weight of the next fear: AI. The cacophony of alarms is deafening: "It will take *all* the jobs! It will surpass human intelligence! It will control us! It's the end of humanity as we know it!" This is the apex fear, encompassing economic collapse, loss of control, and existential dread.

Each time, the pattern is the same. A new power arrives, sparking fear of loss – loss of skill, loss of livelihood, loss of intellect, loss of control. And each time, that fear, uncomfortable and unwelcome, becomes the very engine of necessary change. It's the jolt that forces us to adapt, to learn new skills, to redefine value, to build new structures.

Resilience isn't built in comfort. It's forged in the heat of anxiety; in the face of the very thing we fear will break us. We wanted to run from the fear of the calculator, but facing it taught us to problem-solve. With computers, we wanted to run from the fear of joblessness, but facing it taught us to innovate and retrain. We wanted to run from the fear of the distraction inherent in the internet, but facing it taught us digital discernment.

Now, facing the profound fear of AI, we have a choice. Cower and let the fear paralyze us, or lean in. Embrace the fear not as a sign to retreat, but as a powerful signal: Change is here, and this discomfort is the energy needed to fuel our most significant adaptation yet. True resilience comes from acknowledging the fear, understanding its source, and using its potent energy to build, not run. Our capacity to navigate this next transformation depends entirely on our willingness to embrace the fear and guided by it, evolve.

Now let's focus on AI, which brings unprecedented capabilities. The fear sometimes is that AI will *do* the skills *for* learners, making them passive. Our goal is the opposite: use AI to create situations where learners actively *develop* these skills.

Let's break down how AI can help cultivate those crucial future-ready skills:

- **Creative Problem-Solving:**
 - AI can act as a relentless brainstorming partner, offering diverse perspectives or challenging assumptions you might not have considered.
 - Use AI to quickly generate complex scenarios or data sets for learners to analyze and find novel solutions.
 - AI simulations can allow learners to test out creative solutions in a safe environment and see potential outcomes.
 - *Example:* Provide an AI with a complex business challenge or a scientific problem and ask learners to query the AI for different angles, potential roadblocks, or unusual approaches, then synthesize this into a proposed solution.
- **Teamwork & Collaboration:**
 - AI can facilitate large-scale collaboration platforms, helping organize ideas or identify potential conflicts early (though use with caution regarding privacy and interpretation).
 - Use AI to create simulated team members with different personalities or expertise for learners to practice collaborating with diverse perspectives.
 - AI tools can analyze communication patterns in group text discussions (anonymously, with consent!) and provide feedback to the *group* on balance of participation or clarity, helping them improve their collaborative process.
 - *Example:* Learners work in groups on a project, using an AI tool that helps organize shared research notes and provides prompts to ensure all team members are contributing equally or addressing different facets of the problem.
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- **Communication:**
 - AI chatbots or virtual agents can provide infinite practice partners for practicing presentations, sales pitches, difficult conversations (e.g., performance reviews in corporate, or debates in academic).
 - Learners can write emails, reports, or essays and use AI tools for feedback on clarity, tone, structure, or conciseness *before* submitting or sending.
 - AI can simulate conversations with diverse audiences, helping learners adapt their communication style.
 - *Example:* A corporate learner practices delivering feedback to a difficult "virtual employee" AI, receiving feedback on their language and approach. An academic student practices explaining a complex scientific concept to an AI programmed to act like a layperson.
- **Resilience:**
 - AI can power simulations where learners face setbacks, failures, or unexpected challenges in a low-stakes environment. The AI provides consistent feedback, prompting reflection on why something didn't work and encouraging iteration.
 - AI can help learners identify patterns in their own work habits or emotional responses based on data they choose to share (e.g., calendar data + self-reported stress levels), providing personalized insights and suggesting coping strategies or resources.
 - AI tools can offer access to mindfulness exercises or motivational prompts based on user preference. (Important: Frame AI as a *tool* for practice and access to resources, not a therapist).
 - *Example:* In a project simulation, a learner's proposed solution fails. The AI guides them through analyzing the failure points ("Tell me why you think that didn't work." "What variable did you not account for?") and encourages them to try a modified approach.

The key is that AI provides personalized, scalable, and often immediate opportunities for practice and feedback in complex skill areas that were previously hard to train effectively. It allows learners to *do, fail safely, reflect, and try again.*

Let me share another personal experience:



It wasn't exactly in my job description as an Instructional Designer at the University of California a couple of years back, but I've always been someone who jumps at interesting learning opportunities, even if they fall outside my usual lane. So, when I was assigned to work with a group of about five interns on a UX/UI project, I'll admit I was a little hesitant. UX/UI was definitely not my area of expertise. Still, I accepted the challenge and, looking back, I'm so glad I did. The project turned out to be incredibly enjoyable and insightful.

One of the biggest takeaways for me was realizing just how creative, capable of problem-solving, collaborative, communicative, and resilient these students could be – *when given the chance*. It became clear that many of them simply hadn't been put in situations where those skills were truly required and allowed to flourish.

Since I was also navigating this new UX/UI territory, I figured we'd be learning together. I sat the interns down, outlined the project as best I could, and essentially turned them loose. Their first attempt, bless their hearts, was... well, let's just say it was significantly lacking. Part of that was surely their inexperience with the subject matter, but I also knew my own newness meant I probably hadn't communicated the desired end result as clearly as I should have.

So, we took a deep breath and went through the next steps together. We showed their next level work to the people above us. The interns, conditioned by years of schooling, seemed to expect feedback, perhaps a metaphorical grade, and for that to be the conclusion of the project. That's just not how it works in the "real world" of iterative development. They were visibly a bit deflated when we were tasked with creating another iteration based on the feedback.

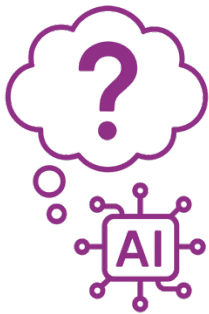
That version also fell short, and that was perfectly okay. The whole point of this exercise wasn't about completing a task perfectly for a grade; it was about the learning process itself. For the next iteration, the project was in good enough shape that it was worth presenting directly to the stakeholders – the actual "powers that be" – to get their feedback. This was a fantastic opportunity for the interns to practice effective communication, explaining their design choices and rationale to their superiors.

Taking the feedback from that session and incorporating it into the subsequent versions became a powerful exercise in all those critical attributes: creativity, problem-solving, teamwork, and resilience. They weren't just completing a project; they were learning to collaborate effectively with each other and with stakeholders. They had to get genuinely creative, coming up with new and evolving solutions when their initial ideas didn't hit the mark. They learned to communicate not just their designs, but also to leverage their collective knowledge as a team to brainstorm solutions and support each other when facing criticism. This resilience, the ability to bounce back and iterate after setbacks, was invaluable.

Ultimately, this experience, born out of stepping outside my comfort zone, taught me so much about how to genuinely help the rising generation hone these incredibly important and evergreen attributes. They are skills that will never *not* be critical for success, no matter how much the technological landscape changes.

Outcome 3:

Implementing AI-Powered Socratic Approaches for Deep Critical Thinking



AI as Your Socratic Partner

Our final outcome focuses on using AI to facilitate deep critical thinking, specifically through Socratic techniques. The Socratic method, at its heart, is about asking probing questions to stimulate thought, expose assumptions, and guide someone towards their own understanding.

Traditionally, this requires a skilled human facilitator and is difficult to scale. AI changes this.

How can we implement AI-powered Socratic approaches?

AI Socratic Implementation

- **AI as a Persistent Questioner:** Design AI prompts or chatbots that are programmed to *always* respond with a question that pushes the learner's thinking. "Okay, you said X. What evidence supports X?" "What are the potential counterarguments to that?" "How would that apply in a different context?"
- **AI for Exploring Multiple Perspectives:** Present a case study or problem to an AI and ask it to articulate the viewpoints of different stakeholders. Learners then have to analyze and critique these AI-generated perspectives.

- **AI for Challenging Assumptions:** Design AI interactions that identify implicit assumptions in a learner's statement and directly challenge them, forcing the learner to articulate their underlying beliefs.
- **AI for Justifying Reasoning:** Ask learners to explain their step-by-step reasoning to an AI, which is programmed to ask "Why?" at each step, demanding explicit justification.
- **Simulating Debates:** AI can be programmed to argue a specific side of an issue, requiring learners to engage in a simulated debate, constructing arguments and refuting points.
- **Focus on the Meta Level:** After an AI-Socratic interaction, the *human* facilitator brings the learners together to discuss *how* the AI questioning worked, *what* they found challenging, and *how* they could apply similar questioning to their own thinking in the future. The AI facilitates the practice; the human facilitates the learning *about* critical thinking.

This isn't about the AI *having* critical thinking; it's about the AI being a tool that *prompts and requires* critical thinking from the learner. The AI provides the stimulus – the challenging question, the alternative perspective, the demand for justification. The learner provides the cognitive effort.

This approach helps learners move beyond surface-level understanding to analyzing, evaluating, synthesizing, and applying knowledge – the hallmarks of deep critical thinking.

From Anxiety to Empowerment

So, looping back to our opening question: Does technology make people dumb? Our exploration today suggests that the answer isn't a simple yes or no based on the technology itself. It depends on *how we choose to use it*.

If we use it passively, merely consuming information or letting tools do our thinking *for* us, there's a risk of cognitive atrophy. But if we use it *actively, strategically, and pedagogically* – as an amplifier for experience, a partner in skill-building, and a tireless Socratic questioner – then technology, including AI, becomes a powerful engine for enhanced learning, future-ready skills, and deep critical thinking.

We've covered strategies for tech-enhanced design, explored AI's potential in cultivating crucial skills like creativity, collaboration, communication, and resilience, and looked at implementing AI to power Socratic approaches for critical thinking.

Your role, as learning professionals, is more critical than ever. You are the architects who design these interactions, the guides who facilitate the learning journey alongside the technology. Embrace these tools, experiment ethically, and focus on designing for the *human* skills that technology can help us elevate.

The era of AI isn't going to make people dumb; it's an unprecedented opportunity to make learning smarter, deeper, and more human-centric than ever before.

[If you would like to learn more about using technology effectively in your learning, please reach out to us to learn more.](#)

“Technology will never replace great teachers, but technology in the hands of great teachers is transformational.”

George Couros