



Teaching in a Digital World When the Answer Is Always a Click Away

When the World Wide Web first entered schools, educators quickly recognized its enormous potential. Suddenly the classroom walls opened onto libraries, museums, universities, scientific databases and educational resources around the world. A teacher no longer had to depend entirely on a textbook, a chalkboard and whatever happened to be available in the school library.

That digital world has expanded beyond anything we imagined. Today's teachers have online lesson plans, instructional videos, interactive demonstrations, learning-management systems, electronic gradebooks and seemingly endless sources of information. Students carry smartphones capable of accessing more information in seconds than most school libraries could hold when I first began teaching. And now artificial intelligence can explain algebra, translate Spanish, summarize Shakespeare—or write the student's essay about him.

The problem is no longer finding information. **The problem is deciding what to do with all of it.**

The World's Biggest Classroom

Technology has given teachers an extraordinary collection of instructional tools. A history teacher can take students virtually inside a museum. A science teacher can demonstrate a process that would be impossible or dangerous to reproduce in the classroom. Language students can hear native speakers, practice pronunciation and communicate with people thousands of miles

away. Students who need additional explanation can find tutorials and practice material whenever they need them.

Technology has also relieved teachers of some administrative drudgery. Attendance, assignments, grades, communication with parents and distribution of classroom materials can all be handled electronically. Online learning platforms allow students to retrieve an assignment at home, submit it electronically and receive feedback without a single sheet of paper changing hands. Used well, technology doesn't replace teaching. **It gives a good teacher more ways to teach.**

The Smartphone: Library and Distraction Machine

Then there's the smartphone. For a student, that little device can be a dictionary, encyclopedia, calculator, camera, translator, research library and communications center. It can also deliver social media, games, text messages and an apparently irresistible urge to find out what everyone else is doing while the teacher is explaining quadratic equations.

Simply banning phones may solve some classroom-management problems, but it doesn't teach students how to use powerful technology responsibly. Allowing unrestricted use creates the opposite problem. Schools and individual teachers therefore have to establish reasonable boundaries based on age, subject and circumstances. The important distinction isn't whether a smartphone is good or bad. **It's whether the student is controlling the tool or the tool is controlling the student.**

Enter Artificial Intelligence

Artificial intelligence has raised the stakes considerably. Used appropriately, AI can be a remarkable educational assistant. A student can ask for another explanation of a difficult concept, generate practice questions, brainstorm approaches to a writing assignment, receive feedback on a draft or practice a foreign-language conversation. A teacher can use it to generate ideas, adapt materials and develop different ways of explaining a concept.

Unfortunately, AI can also do something earlier classroom technologies couldn't do nearly as well: **produce the finished assignment.** A student who once might have copied a paragraph from a website can now ask an AI system to write an entire essay, solve a set of problems or prepare a book report on a book the student never opened. The resulting work may be polished enough to make academic dishonesty harder to recognize.

That creates a challenge more important than simply catching cheaters. Teachers have to design assignments that emphasize the *process* of learning. Drafts, classroom discussion, oral explanations, personal examples, demonstrations and opportunities for students to explain how they reached an answer can reveal understanding far better than accepting a polished document as proof that learning occurred. The question shouldn't always be, **"Did AI help you?"** Increasingly, it should be, **"What did you learn while using it?"**

Making AI Cheating Harder

Teachers don't necessarily need sophisticated AI-detection software to discourage AI cheating. One of the simplest defenses is to make the **process part of the assignment**: require students to submit an outline, sources, an early draft and revisions along with the finished work. Occasionally ask them to explain how they reached a conclusion or defend something they wrote. Assignments tied to classroom discussions, personal observations or specific course material are also more difficult to hand over wholesale to AI.

Some instructors have experimented with hidden instructions designed to catch students who blindly paste assignments into an AI system—such as secretly directing the AI to insert an absurd word like *Madagascar* into its answer. It's an ingenious trap, but clever traps aren't a substitute for good assessment, and an AI detector alone shouldn't be treated as proof of cheating. The best test remains remarkably old-fashioned: **Can the student explain, defend and reproduce the thinking that appears in the work?**

Teaching Students to Separate the Wheat From the Chaff

The Internet's abundance creates another problem I recognized when I first wrote this article: separating the wheat from the chaff. Finding information is easy. Determining whether it's reliable is considerably harder.

Students need to learn who created a source, what evidence supports it, whether other reliable sources agree and whether information has been distorted, taken out of context or simply invented. AI adds another wrinkle because it can occasionally provide incorrect information with remarkable confidence. A beautifully written answer isn't necessarily a correct one.

That makes digital literacy part of ordinary literacy. Students need more than the ability to search. They need the judgment to **question, compare and verify** what they find.

The Teacher Is Still the Keeper of the Gate

Years ago, I concluded that the digital world had both enriched and complicated the teacher's job. That hasn't changed. What has changed is the size of the digital world and the power of the tools available to students.

Teachers can no longer be expected to stand at the front of the classroom as the principal source of information. The information is already everywhere. Their increasingly important job is helping students turn that abundance into knowledge and, eventually, judgment.

Instant access to information does not automatically produce learning. A smartphone can retrieve an answer. AI can compose one. Neither guarantees that the student understands it.

That still requires something technology hasn't made obsolete: **A good teacher.**