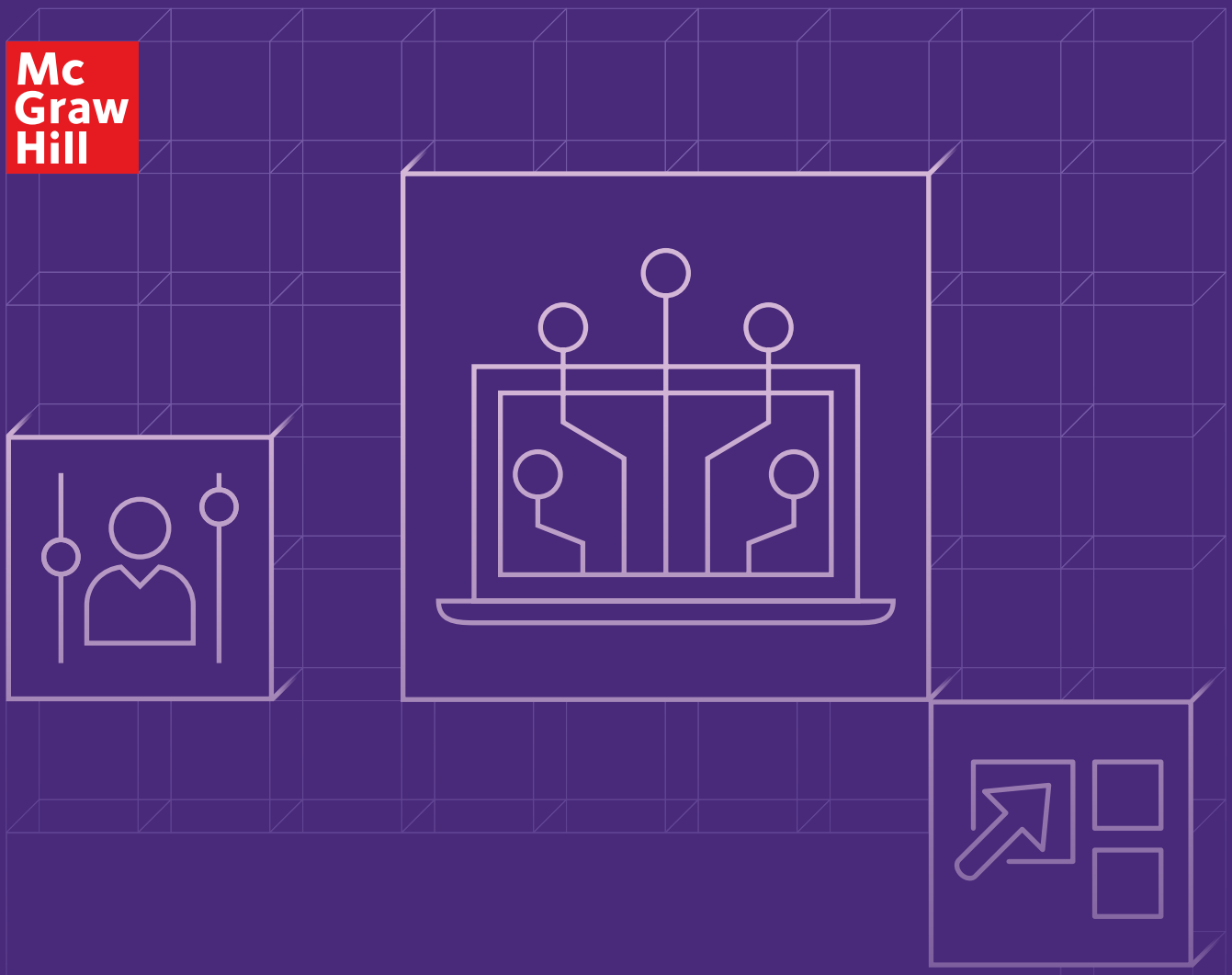


McGraw Hill PreK–12

# Commitment to Ethical Artificial Intelligence

# Our Commitment to Ethical AI in PreK–12 Education

Our vision for Artificial Intelligence (AI) in PreK–12 education involves transformative technologies that revolutionize teacher workflows, enable differentiation, boost student engagement, and foster deep student-teacher partnerships. As we leverage AI in our digital learning solutions, we commit to the following principles to ensure that our AI is designed ethically with the needs of students, educators, and families at its core.

**Above all, our AI exists to automate otherwise manual workflows, assist educators, engage learners, make personalized instruction scalable, and elevate human relationships.**

# We Practice Unwavering Adherence to Responsible Use of Data

- Our AI work follows overarching, global McGraw Hill privacy practices.
- We leverage data within AI systems only to improve our AI's ability to serve users and drive better learning outcomes.
- Our data scientists focus on identifying how best to collect and use data to inform instruction in a way that protects each individual's right to privacy.
  - **In action:** When building a proficient model in our innovative new tool, *McGraw Hill Plus*™ for PreK-12, we...
    - look not only at response correctness but also question type, assessment type, and skipping/guessing behavior.
    - check our models on students from a variety of schools, districts, and performance levels to ensure generalizability.
    - validate the resulting proficiency estimates against other proficiency measures like standardized tests to ensure agreement.
  - **In action:** Our adaptive online supplemental math and science program for grades 3–12, *ALEKS*®, uses "big data" (billions of data points gleaned from over 25 million students) and sophisticated applied math theory to drive improved student learning outcomes by identifying precisely what content the individual student has mastered and what the individual is now ready to learn.

# We Build Technology That is Accurate and Effective

- We define effectiveness via improved student learning outcomes, increased personalization, and decreased educator workload.
  - **In action:** *Actively Learn™*, our digital supplemental curriculum platform for grades 3–12 ELA, science, and social studies uses automatic short-answer response grading, allowing educators to devote additional time to other highly impactful activities, such as lesson planning and direct student interaction.
  - **In action:** *Actively Learn* uses students' past performance on assignments to determine whether they would benefit from scaffolding and additional contextual instruction, carefully written and embedded into the texts by *Actively Learn* content writers. With this feature enabled, students receive targeted help that will adapt based on their performance throughout the school year. Educators can choose whether to manually adjust scaffolding for individual students or enable this automated feature, removing the mental load of having to update their class settings as they monitor student progress over time.
- We strive to make data-based reporting illuminating, formative, and actionable for educators.
  - **In action:** *Reveal Math®*, our core K–12 math program, incorporates MAP Growth® reports from NWEA at the classroom level alongside recommended instructional content to prepare all students for the upcoming unit.
- We continually evaluate the accuracy of our technology's outputs.
  - **In action:** In *ALEKS®* and *McGraw Hill Plus* for PreK–12, we evaluate the effectiveness of the instructional recommendations the tool makes by checking whether students using those resources show greater increases in proficiency.
  - **In action:** All *ALEKS* courses are continually evaluated to ensure real-time accuracy of a) precise student assessment and b) identification of specific content the student is ready to learn.

# Our Teams Ensure Oversight, Accountability, and Partnership

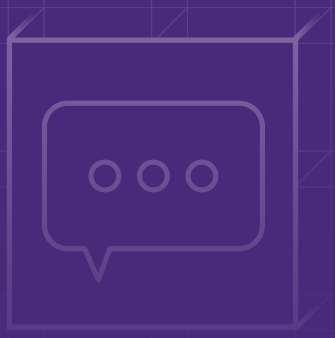
- Every phase of our AI design process is informed by our expertise in learning science and cognitive science. Our team of data scientists, learning scientists, privacy professionals, and technologists have thorough oversight of our AI, and our leadership teams play an active role in ensuring accountability.
  - **In action:** *ALEKS®* draws from exceptional, non-multiple-choice digital math content that we have developed and curated for K–12 schools for over 20 years. Our scientists harness their deep understanding of AI in relation to the content to ensure that each student is always working in their zone of proximal development.
- Educators and students make valued, ongoing contributions to the creation and iteration of the instructional programs in which we use AI, including user design, content, and application.
  - **In action:** *McGraw Hill Plus* for PreK–12 and *ALEKS* have been informed by user-research sessions with teachers to evaluate the clarity and usefulness of the language and visualizations we use to show student proficiency.
- We collaborate with schools to ensure teachers have the data literacy and agency to make instructional decisions throughout implementation.

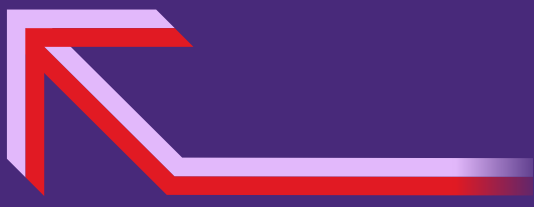
# Our AI Empowers, Protects, and Elevates Educators and Learners

- We empower educators to leverage AI without relying on them to be computer science experts.
  - **In action:** In *Actively Learn*™, all automatic features that affect the teacher's instructional experience, the student's reading experience, or student feedback and scoring can be easily turned on or off by the teacher on a granular level, allowing for highly customizable instruction that keeps the teacher in control.
- We designed the AI in our products to enable educators to make informed learning decisions that best benefit their students.
  - **In action:** *McGraw Hill Plus* for PreK–12 and *ALEKS*® use student data insights to present recommended individualized learning content to teachers, who can then assign or adjust it to meet their differentiation and personalization goals.
  - **In action:** Our digital supplemental math acceleration solution for grades 3–12, *Achieve3000 Math*®, monitors performance on questions that pertain to specific skills and provides teachers with recommendations for which content may best reinforce individual students' prerequisite knowledge for current assignments.
- We train our AI systems using student data that matches the demographics of the students we serve. All student data is protected with robust privacy measures.
  - **In action:** When *Actively Learn* automatically scores student responses, we take care to prioritize data from the environment of the individual student—their classroom, teacher, school, district, etc.—to make the most accurate decision that is contextually appropriate for that student.
- We strive to use AI to make outcomes more equitable and to reduce achievement gaps related to wealth, gender, race, ethnicity, geography, and other factors.

We understand that AI in education is a rapidly evolving space. As innovations continue to change the education technology landscape, AI's role in the lives of students, educators, and families will also change. We are committed to evolving our approach to AI development and use by listening to the voices of all stakeholders, and we look forward to collaborating with research organizations and governing bodies as new guidelines and regulations are created.

To get in touch with us with any feedback, questions, or thoughts about our approach to ethical AI in education, reach out using this form.





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