

Teaching AI Literacy and Self-Determination for Students with Intellectual and Developmental Disabilities

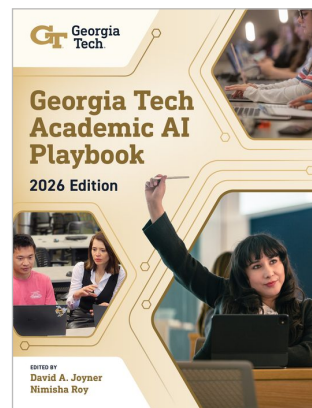
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Pages 158–160 of the Georgia Tech Academic AI Playbook, 2026 Edition

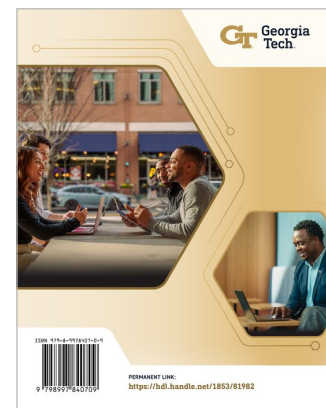
About the Playbook

The Georgia Tech Academic AI Playbook collects stories of how artificial intelligence is being used, taught, and responded to in Georgia Tech classrooms. The 2026 Edition gathers 67 articles from faculty, staff, and researchers across every college at Georgia Tech, along with the Library, the Center for Teaching and Learning, the Georgia Tech Research Institute, the Office of Information Technology, and the Provost's Office.

Each article is a “play”: a specific initiative carried out in a real course, documenting the prior context, the actions the instructor took, the results, and the lessons learned. The volume closes with 20 lessons synthesized across the full collection.



Front cover



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ISBN 979-8-9978407-0-9. Edited by David A. Joyner and Nimisha Roy. <https://hdl.handle.net/1853/81982>

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Suggested Citation

Nathaniel Heald, Rachel Lowy (2026). Teaching AI Literacy and Self-Determination for Students with Intellectual and Developmental Disabilities. In D. A. Joyner & N. Roy (Eds.), *Georgia Tech Academic AI Playbook* (2026 ed., pp. 158–160). Georgia Institute of Technology. <https://hdl.handle.net/1853/81982>

Title: Teaching AI Literacy and Self-Determination for Students with Intellectual and Developmental Disabilities

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Categorization: Teaching AI

Sub-Categorization: AI Literacy for Non-Technical Audiences

Formation

The rapid adoption of generative artificial intelligence has fundamentally changed how students learn, communicate, and complete academic and workplace tasks. While many higher education initiatives have focused on helping traditionally enrolled students adapt to AI, comparatively little attention has been given to learners with intellectual and developmental disabilities (IDD), who attend Inclusive Post-Secondary Education Programs (IPSE), like the EXCEL program at Georgia Tech. This represents an important equity challenge. Students with disabilities have historically been among the last groups to benefit from emerging technologies, despite often standing to gain the most from tools that can improve communication, organization, creativity, and independent living. AI literacy is becoming an essential future workforce competency, creating an opportunity to ensure these students are not left behind.

Technology II: AI Skills for Life was created within Georgia Tech's EXCEL Program, a four-year certificate program housed in the College of Lifetime Learning, for students with intellectual and developmental disabilities. Rather than teaching computer science or machine learning, the course focuses on AI literacy: helping students understand what generative AI is, what it can and cannot do, how to use it safely and ethically, and when human judgment should remain central. The overarching goal is not simply technological proficiency, but increased self-efficacy and self-determination for a specific population of students. Students learn to make informed choices about whether AI is appropriate for a particular task rather than assuming it should always—or never—be used.

Because many EXCEL students demonstrate diverse learning profiles, the course was intentionally designed using multimodal instruction. Reading levels for students in IPSE programs are generally in the elementary or middle school ranges, therefore traditional text-heavy approaches to AI education were supplemented with demonstrations, visual examples, guided conversations, live prompting, videos, role-playing activities, and repeated hands-on practice. The instructional philosophy emphasized accessibility, reducing cognitive load, and building confidence through authentic experiences rather than abstract technical concepts.

Action

The course was designed as a new elective introducing commercially available generative AI tools through practical, real-world applications. Students explored conversational AI, image generation, multimodal prompting, accessibility features, productivity assistants, and AI tools commonly available on smartphones and consumer devices. Tools explored included free or educational licenses of ChatGPT, Gemini, Goblin.tools, and Copilot. Rather than focusing on programming, instruction centered on developing practical AI literacy skills that students could immediately apply in academic settings, employment, and everyday life.

A central design principle was teaching students to become thoughtful AI users rather than passive consumers. Classroom activities emphasized asking effective questions, evaluating AI-generated responses, recognizing hallucinations, identifying bias, protecting personal information, and understanding copyright and academic integrity. Students learned how to customize each AI tool given their own values, preferences, and comfort with AI tool use. Students practiced revising AI outputs instead of accepting first responses, reinforcing that AI should function as a collaborator rather than a replacement for human thinking.

Instruction relied heavily on experiential learning. Each class incorporated instructor demonstrations followed by guided practice and independent exploration. Students completed increasingly open-ended activities and culminated in creating their own AI generated application, game, PowerPoint, or other media based on a personal interest area. Iteration and peer-feedback were incorporated to ensure students used perspective taking techniques and improved their products and approaches, learning how consumer AI tools worked, where they broke down, and what potential use cases were possible that students had not yet considered.

To evaluate the effectiveness of the course and support continuous improvement, the instructional team developed an Institutional Review Board (IRB)-approved research protocol. This allows future analysis of student confidence, AI literacy, patterns of technology adoption, and perceptions of responsible AI use while informing subsequent iterations of the curriculum. The course also utilized two teaching assistants and two co-instructors, which provided a robust ratio of instructional support to students.

Result

Although only taught for one semester, student feedback from the course has been highly encouraging. A total of 11 students participated in this pilot course. Students demonstrated increased confidence interacting with AI systems and greater willingness to experiment with new technologies independently. Perhaps more importantly, they developed a stronger understanding that AI is a tool requiring human oversight rather than an authority that always produces correct answers.

Students began using AI more intentionally across academic and personal contexts, including brainstorming ideas, improving communication, summarizing information, organizing schedules, generating creative content, and exploring career interests. Instructors observed increased student engagement during class activities and richer classroom discussions about ethics, privacy, fairness, and appropriate technology use. Rather than simply asking whether AI could complete a task, students increasingly asked whether AI should be used for that task and how much assistance was appropriate. Perhaps the most impactful result observed was how students dictated their desired AI involvement, and assessed whether they were comfortable and accepting of the level of involvement and output provided by various commercially available AI tools. Students were more empowered to assess their own use and the appropriateness of AI tools and outputs.

The course also highlighted the importance of designing AI instruction specifically for learners with disabilities rather than adapting materials originally intended for traditional undergraduate populations. The ongoing IRB study will provide additional evidence regarding changes in AI literacy, confidence, self-efficacy, and responsible technology use across future course offerings.

Lessons

- **Lesson 1: AI literacy is fundamentally about decision-making, not technology.**
Students benefited most when instruction focused on when, why, and how to use AI across multiple platforms. Because AI tools evolve rapidly, durable decision-making skills are likely to remain valuable longer than platform-specific knowledge.
- **Lesson 2: Accessibility should be built into AI education from the beginning.**
Multimodal instruction—including visual demonstrations, verbal interaction, live practice, and simplified examples—allowed students with diverse learning profiles to participate meaningfully. Designing for accessibility improved engagement for the entire class rather than only students requiring accommodations.
- **Lesson 3: Confidence develops through guided experimentation.** Many students initially viewed AI as intimidating or believed there was a single "correct" way to interact with it. Providing structured opportunities to experiment, make mistakes, compare results, and discuss limitations helped students become more independent and critical users of AI. Future iterations of the course will continue expanding authentic, real-world scenarios that allow students to practice evaluating AI as one tool among many rather than treating it as either a shortcut or a substitute for human judgment.