CHEPP

The Center for Higher Education Policy and Practice

AI IN HIGHER EDUCATION: TEACHING AND LEARNING

Applying a Learner-Centered Lens to AI Integration

JULY 2026

Introduction

An important start to the discussion of AI in higher education is its application to teaching and learning. This report provides an overview of how AI is being thoughtfully integrated into teaching and learning in higher education and how universities and colleges must play a critical role in that process. Central to this process is the role of learner agency and awareness in the learning process and the extent to which AI can be used in ways that can augment rather than replace learning. In terms of academic relevance and engagement, faculty and instructors are grappling with how to effectively and authentically assess learning, the importance of preparing students for an AI-era workplace, and what guardrails or guidance is needed to ensure academic integrity. Finally, the learner experience in higher education has the potential to be transformed through AI agents, chatbots, and other tools that reduce repetitive and administrative workloads. Institutional leaders have important decisions to make in each of these areas. Each of these topics is covered in this report, which is comprised of three main sections: learner agency and awareness, academic relevance and engagement, and learner experience. To support policymakers and leaders as they navigate AI, there are call-out boxes throughout the report that highlight institutional challenge and decision points.

This report is part of CHEPP's AI in higher education research series *How AI is Reshaping Higher Education: Learner-Centered Insights for Policymakers and Practitioners*. The series also includes *AI in Higher Education: A Primer for Policymakers and Leaders*, and *AI in Higher Education: Infrastructure and Operations – Key Enablers of AI Strategies*. The primer provides a detailed overview of AI, how it operates, and what its capabilities are as of the writing of this series. The report on infrastructure and operations details how technical infrastructure, leadership, and processes across institutions of higher education are critical to advancing intentional applications of AI.

Learner Agency and Awareness: Epistemic Agency and Augmented Learning with AI

Learners have wide-ranging views on the benefits, risks, and opportunities associated with generative AI tools and their impact on learning. In a recent *Inside Higher Ed* survey of just over 1,000 college student respondents from 166 schools in the United States, half of those who used generative AI in their courses said the effects of AI on their critical thinking skills were mixed (i.e., "sometimes it helps, but other times it makes them think less deeply") – with 7% indicating it's harming them and a quarter saying it's actually helping their learning (Flaherty, 2025). In a 2025 internal institutional study, SNHU conducted a pilot of learners who used the generative AI tool Latimer (an AI platform purportedly designed to mitigate algorithmic biases by drawing on more inclusive sources) in their coursework as a supportive tool. The pilot study compared the rate by which Latimer users earned course credit to the rate non-users earned credit. SNHU found Latimer users had a 6.7 percentage point higher course success rate than a like group of non-users, with no difference in subsequent term persistence. Importantly, 96% of Latimer users in the study had no academic integrity cases compared to 97% of non-users, indicating the majority of learners have a desire to learn and make good decisions when using AI in their studies. In another survey comprising a sample of 4,500 learners by WGU Labs, 59% were enthusiastic about AI tools when it came to personalizing their learning (Reeves, 2025). Another non-peer-reviewed study measured brain activity and student output by comparing LLM (large language model), search engine, and brain-only (i.e., no tools) user groups during essay writing. Findings indicated brain activity was significantly weaker among LLM and search engine users and their output tended to follow a more homogeneous pattern; those using only their brains showed more neural connectivity and their output was much more varied in its approach to the topic (Kosmyna et al., 2025).

While there is still much to be learned about the impact of AI on learning, there is broad agreement that generative AI is here to stay – not just for our personal and work usage, but also in our learning environments. The *Inside Higher Ed* survey data also showed that approximately 85% of learners had used generative AI in their coursework in the previous year (Flaherty, 2025). Thus, learners must also understand the importance of documenting when, how, and why AI was used in their coursework and be fully transparent by appropriately citing its use. Additionally, the technical capabilities of AI tools can open the opportunity for learners to receive personalized tutoring so they can learn faster, reduce menial tasks such as organizing lecture notes, analyze larger amounts of data, and conduct more complex and comprehensive analyses than was previously possible. Understanding how AI can augment but not replace learning, and how learners can maintain their agency, appears key to careful and intentional use of AI in the learner's higher education journey.

Epistemic Agency: Using AI in Ways That Preserve Learning and Cognitive Development

A learner's epistemic agency is their capacity to take responsibility for their own learning and intellectual advancement (Muukkonen et al., 2009); it is fundamental to the development of their critical and analytical thinking skills. Developing epistemic agency entails activities that strengthen intellect – such as rigorous inquiry, deep reading and thinking, and writing that is clear, logical, and authentic. Without it, the development of a learner's ability to learn, analyze data, think critically and logically, make well-informed decisions, and communicate clearly is at risk. In short, learners require epistemic agency in order to build their learning capabilities and capacities.

The challenge with AI is that it presents the opportunity for learners to do too much of what is called *cognitive offloading*, which means having AI do the activities inherent to epistemic agency. Interviewees noted that sometimes cognitive offloading can be good because AI performs lower-level tasks that then allow the learner to focus on higher-skilled tasks. For example, for students learning how to code, AI can assist with data entry or data cleaning tasks, so they can more quickly move to coding and data interpretation. For business majors, on the other hand, AI can assist with simple coding, so that the learner can move to using data analysis results in order to develop strategic business responses. The key is to ensure learners are augmenting (not replacing) their own independent thinking, decision-making, analysis, and research when engaging with AI tools in their courses. As the examples demonstrate, the distinction between augmenting and replacing will often differ based on the specific area of study and the individual student. The key for institutions is to provide clear guidance on when AI is permitted for cognitive offloading versus when AI could be jeopardizing their epistemic agency and ability to learn.

Sidebox 1. Resistance to Adoption and Concerns About AI

Across the learner focus groups and 20+ subject matter expert interviews, there was evidence that some learners and faculty are actively resisting the use of AI due to its negative impacts in a few areas: the environment, data privacy, intellectual property, human connection, the perpetuation of harmful biases, and potential harm to the learning process.

Specifically, regarding AI's environmental impacts, some learners and faculty expressed concerns about the high energy use and cost of data centers, as well as their impact on water supplies. Concerns about data privacy, intellectual property, and bias stem from the fact that AI requires the use of data to train AI models — which may inherently contain bias and pose privacy and intellectual property violations. Regarding the learning process, some concerns were expressed that while more time for human connection may be facilitated by AI, it does not necessitate it, and the same applies to epistemic agency. While both human connection and epistemic agency can be balanced and augmented, AI also opens the possibility for losses in these important aspects of the learning process.

See Table 1 below for examples of AI tool uses that are generally considered to be augmenting and not replacing epistemic agency. Interviewees noted that specific uses and tasks performed by AI may not be replacing their epistemic agency, but if too many discrete tasks were completed together by AI for a single project, it could harm their learning and agency. Thus, it is often at the discretion of individual instructors and their academic policies for individual courses to specifically and clearly help learners understand what is, and is not, allowed within the academic course.

Table 1. Examples of How AI Can Augment vs. Replace Learning

Augmented Learning Practices & Uses	Learning Replacement Practices & Uses
These uses require engaged interaction and agency from the learner, with transparency.	These uses generate content with little to no learner engagement or agency, without transparency.
· Summarizing lecture notes · Analyzing large datasets · Brainstorming research ideas · Generation of an outline · Real-time captioning or text-to-speech services for learners with disabilities · Organizing information · Advanced search engine · Personalized tutoring · Creating study guides · Improving clarity or tone of writing · Editing, spellcheck, and grammar correction	· Generating answers to discussion questions · Developing a research thesis · Completing math assignments by solving problems · Writing an essay or research paper in response to a prompt · Creating an image, video, or other visual art to complete an assignment

Source: Interviews with 20+ subject matter experts across multiple institutions in the United States and focus groups with learners from five different colleges and universities.

Learning: Examples of AI in Practice to Augment Learning

- **Use case: Personalized, just-in-time tutoring and guidance.** In interviews, some learners and faculty noted that generative AI can be a highly effective personalized tutor that can increase the speed of learning and improve the quality (including tone) of feedback. They also noted AI has made private tutoring more equitable, since learners who wouldn't otherwise be able to afford a one-on-one tutor can now access generative AI tools. Learners also note that they may have a preference for an AI tutor for some learning tasks, since AI doesn't have human judgment and is a low stakes environment. In one survey by WGU Labs, learners indicated they appreciate and trust this kind of feedback and use of AI (Farmer, 2025).
    - **Learner examples:** In one interview, a learner discussed using ChatGPT as a personalized tutor to accelerate his studies for the SAT and ACT. Another interviewee, a faculty member, shared that she uses generative AI to provide guidance on improving the tone of her feedback on learners' writing.
- **Use case: Practicing authentic tasks in a low-stakes environment.** The ability to simulate environments and practice in preparation for an important event offers great benefits to learners who are looking for feedback while they prepare for presentations, interviews, assessments, and oral exams, as a few examples.
    - **Learner examples:** In interviews, learners cited the use of AI to practice interviewing for jobs on video. This allowed them to watch their performance and find ways to improve aspects like interview etiquette, public speaking, social skills, and domain knowledge.
- **Use case: Building AI skills through course assignments and AI fluency programs.** AI skills can be built and improved upon when faculty provide guidance and intentional design of their courses to include applications of AI in student work. These skills can help learners better understand how to leverage AI, what its limitations and inaccuracies may be, and how to supervise (and assess the veracity of) its output. Since AI fluency will be critical in the workforce, some institutions have also created AI certifications and microcredentials.
    - **Examples of building AI skills through course assignments:** Comparative analysis of AI and human-generated content helps learners develop evaluation skills and identify inconsistencies, weaknesses, and limitations with AI output (Posorski, 2025). Instructors in business administration courses have created assignments whereby learners can use AI to generate content or analyze data to inform business decisions, using AI tools that learners are likely to be expected to use in the workplace.
    - **Institutional examples of AI fluency training:** SNHU and Dallas College have developed AI microcredentials and training for faculty and staff with the intent of offering similar training to students. The University of Louisiana has also established an AI literacy microcredential. Institutions like San Francisco State University, University of Florida, and Baylor University are building AI ethics courses into their AI degrees and certificates (Rix, 2026).

- **Use case: Enhanced accessibility for learners with disabilities.** Generative AI tools provide institutions with more options to design and deliver fully accessible courses to improve the learner experience for students with disabilities. AI tools provide real-time captioning and text-to-speech services for learners who need them.
    - **Tool example:** Microsoft Immersive Reader can conduct text-to-speech and font adjustments (Neha, 2025).
- **Use case: Enhanced support for multilingual learners and culturally responsive content.** Generative AI can be used by multilingual learners who need real-time translation of course materials, lectures, presentations, and course discussions.
    - **Tool example:** Microsoft Immersive Reader can produce live translation for non-native speakers (Neha, 2025).

Sidebox 2. On the Horizon: A New Future for Higher Education Under Development

Institutions that are exploring ways to use AI to enhance learning are often examining somewhat narrow use cases — for example, using AI as an integrated part of an assignment, as a tutor, for feedback on a syllabus, or to provide more effective feedback to learners. Institutions and vendors alike are also using AI to create more personalized curricular pathways for learners; these pathways assess the learners on what they may already know and then tailor the instruction to the skills or competencies the learner still needs to learn. With AI, however, there are also bigger visions for how AI could be enlisted to completely transform learning as we currently know it into precision learning, which would not only take into account what the learner knows or doesn't know, but also how they learn, what their academic strengths and weaknesses are, where they might need accessibility supports or alternative modalities, and other aspects of their learner profile. An LLM could then draw on the learner profile along with the course content to create learning experiences that are tailored for that individual learner (Gamby et al., 2025).

Precision learning created for a particular learner could employ case studies or math problems that draw on elements from their unique hobbies or interests. It could adjust how data is presented if the learner's calendar indicates that they had an early start to their day and may be tired. Or it could build additional tutoring on statistical terms if the learner didn't exactly ace their lower-level statistics course.

The technology to create this kind of precision learning exists today. But getting there will require overcoming a number of challenges, including the need for updated data architecture, better systems for learning assessments, a high level of trust in the tools, transparency with the learner, student willingness to allow such use of their personal information, and a general willingness of institutions, faculty, and learners to be a part of the vision. SNHU has a team of AI researchers and leaders working towards developing elements of this future vision.

Sidebox 3. Data Privacy for Learners in the Age of AI

In the various interviews conducted for this report, concerns about data security and data privacy were commonly raised by interviewees. Prior to the widespread adoption of AI, most data privacy concerns with respect to student information were subject to federal laws and regulations such as the Family Educational Rights and Privacy Act (FERPA). Furthermore, institutions had appropriate processes in place to manage data security issues such as those originating from hackers and malicious spam.

The use of AI tools introduces new data security and data privacy risks that may not always be transparent for the user. Users may not realize that when they provide certain personal details to AI (e.g., as background for help in making career or educational decisions), that personal information is accessible to the AI tool and its developers. Therefore, even the most rudimentary experimentation with AI needs to be carefully managed by higher education institutions. The security of personal data is of paramount concern. For example, AI users may not realize that the efforts they take to mask the identities of research subjects in a dataset can be deanonymized by AI. Current U.S. laws and regulations have not kept up with the capabilities and methods of AI, making data security and data privacy key issues that leaders need to give top priority. This issue is discussed further in the operations and infrastructure paper in this research series.

Institutional Challenge and Decision Points: Intentional Incorporation of AI Is Key

Institutional leaders should inherently understand epistemic agency, cognitive offloading, and the different ways AI can be employed to augment or replace learning and thinking for learners. Creating a future vision for how learners should engage with AI in the learning process is also important for building practices and resources towards that goal. Here are a few key takeaways for consideration:

- AI must be intentionally built into particular aspects of the learning process in order to augment (and not replace) learning.
- AI can be part of an institution's efforts to create Universal Design for Learning (UDL) by providing enhanced accessibility to course materials for learners with disabilities, as well as multilingual learners.
- The future of AI in learning could include some form of precision learning. Institutions that invest early can build unique infrastructures and tools to serve learner needs.
- Education, awareness, and transparency about data privacy, environmental impacts, intellectual property, and bias are all important for learners. Latter sections of this report discuss how leaders can support learning about these important issues by building AI fluency.

Academic Relevance and Engagement: Augmented Teaching and Assessment, AI Fluency for the Workforce, and Academic Integrity

The overarching sentiment about AI is that it is likely to become ubiquitous, and its impacts will likely continue to be mixed amid emerging academic practices and policies. The challenge for faculty and institutions is that AI tools can diminish epistemic agency from the learning process, if they are not intentionally managed. Without clear guidance, academic integrity cases, risks to data privacy and intellectual property, and potential harm to the learning process become more prevalent. While these challenges and risks are real, some faculty and practitioners also see AI as providing an opportunity for more time to be spent on developing durable and human skills, building better relationships, creating new and more authentic forms of assessment, and helping learners build fluency with AI tools which is important to the future workforce. Additionally, there is the potential for AI to improve teaching efficacy by proliferating proven teaching practices and applying them more consistently in specific areas. To this end, learning scientists are grappling with understanding how, and under what circumstances, teaching can be enhanced or harmed by AI.

Augmenting Teaching with AI

The impact of generative AI on teaching is complex, nuanced, ongoing, and increasingly challenging to navigate. Usage of AI tools among higher education professionals, like staff, faculty, and leaders, is increasing rapidly – 84% said they were using it personally or professionally in a 2024 survey (Ellucian, 2024). Careful implementation of AI into the curriculum will be critical, however, since research has shown that intentional uses of technology improve outcomes and learners worry about the trustworthiness of AI and its efficacy in learning (Hardman, 2025; Farmer, 2025).

Incorporating AI into teaching comes with benefits and risks, both of which are worth noting. On one hand, the faculty and staff interviewed for this paper were optimistic about AI's ability to create efficiencies in their work (e.g., grading, communication, seamless integration of multiple technologies and tools to reduce workloads) and how they might use the added time for relationship-building. Additionally, they noted the use of AI in teaching may also provide more equitable access to personalized tutoring and the creation of dynamic content that is more relevant to learners and more accessible to those with disabilities or multilingual needs. On the other hand, faculty reported lingering concerns about AI and the need for ethical and transparent systems that protect data privacy, the need for cohesive processes to identify and correct biases inherent to the technology, and the possibility that it could introduce other risks to learners such as to their mental health. They also noted there is a need for clear policies that protect academic integrity and transparency, educate users on environmental impacts, and protect human relationships and connections. While learnings about AI tools are ongoing, the following are selected examples that emerged from interviews and a literature review. They were selected because they illustrate some of the practical applications of generative AI and its impacts thus far.

Teaching: Examples of AI in Practice to Augment Teaching

- **Use case: Assessment based on demonstrated learning.** Measurements of learning can now include the dynamic and personalized assessment of demonstrated learning. Learners can record oral exams using AI tools, record their performances in meetings or in presentations on video using AI simulation, and demonstrate their knowledge by critiquing outputs from AI. Time-bound measures of learning through static quizzes and tests have long been questioned as the best measures of learning. AI offers an opportunity for learners to demonstrate their learning in new and more measurable ways.
    - **Institutional example:** One example shared in a recent article includes teaching Newtonian physics using an AI tool that engages learners in natural language processing to have conversations (Kovanović et al., 2025). Measurement of learning is conducted through the AI tool by analyzing the time taken for a response, accuracy of information, and choice of words. The drawbacks of such tools are that they are limited in relying mostly on text analyses and detecting specific words (Kovanović et al., 2025).
- **Use case: Generating dynamic, highly interactive content based on learner feedback.** Generative AI tools offer instructors the possibility of creating content that incorporates the feedback and input of learners through highly interactive outputs and formats (e.g., video, audio, text, and images) (Farmer, 2025). The impacts of AI-generated dynamic and interactive content on learning need further study, but the hypothesis is that they may be more engaging for learners.
    - **Instructor example:** One professor shared that he uses AI to create podcasts that discuss tenets of ancient Greek philosophy.
- **Use case: Course authoring platforms that use AI to develop course content.** WGU Labs has tested the ability of a course authoring platform, called Lazuli, to use AI to develop course content, provide instant learner feedback, and offer opportunities for both open-ended formative assessment and low-stakes direct application of learning (Farmer, 2025). The tool is also trained on learning science principles and offers the advantage of more consistently implementing them across courses (Farmer, 2025).
    - **Institutional example:** Western Governors University (WGU) is using course authoring platforms to help democratize learning science principles among faculty to increase consistency in proven teaching practices.

Authentic Assessment with AI: Artifacts of Learning vs. Demonstrated Learning

Several individuals interviewed for this report noted that when generative AI tools were released in 2023, a common response from higher education was a heightened concern about cheating. While measurement of learning has always been an integral part of education, it takes on a new sense of importance within the context of AI, thereby giving the topic of effective assessment some long overdue attention.

Measurements of learning outcomes in the form of traditional time-bound assessments such as quizzes, multiple choice tests, and seat time spent in a classroom have long been questioned for their effectiveness since they are artifacts and outputs of the learning process. Truly authentic forms of assessment, critics argue, would measure learning in the form of skills and competencies by demonstration in the learning process itself. For more than a decade, competency-based education (CBE) has done this by creating project-based measures of demonstrated learning that prove learners have attained mastery of a competency (CHEPP, 2023). Now, with the proliferation of generative AI, many widely available AI tools can outperform human beings in their ability to conduct research, create summaries, analyze large datasets, and produce a variety of artifacts that were previously used to assess learning in the traditional model of higher education. This shift is pushing many faculty, staff, and leaders to seek new and more authentic ways to assess learning, both with and without the assistance of AI. In the short term, some instructors are turning to the use of blue books to conduct written exams in class, or are utilizing oral exams conducted with an instructor, an AI tool, or a combination of both.

More authentic and creative ways of assessing demonstrated learning are also emerging due to the advent of generative AI. For example, the assessment team at SNHU are currently focusing on how they might design metacognitive assessments that leverage AI tools. These assessments will be designed to build specific competencies so that learners become the assessors of AI-generated content. Through this kind of reflective and critical review of AI-generated content, learners can demonstrate their content knowledge, literacy, critical thinking, and analytical skills. This type of interaction with an AI tool achieves several objectives: it allows the faculty member and institution to have control over the underlying LLM that is used in a particular AI tool during the assessment; it helps learners enhance their AI literacy skills; and it enables the learning process and the demonstration of learning to become visible, documented, and part of the feedback and assessment process.

AI Fluency and the Shifting Labor Market

Incorporating AI intentionally into coursework will be necessary, since AI skills will be needed in the future workforce. Globally, 1 in 10 new job postings require new advanced skills, and half of those new skills are in technology areas, a growing share of which are in AI (Jaumotte et al., 2026). Further, while demand for AI-related skills is increasing among employers, AI appears to be tightening the labor market (Jaumotte et al., 2026). Learners say it is both harder for new graduates to obtain employment due to the automation of tasks, and extremely important that they have cutting edge AI skills to be competitive in their job search. This tightening in the job market could be a short-term response to the changing skill needs across occupations and a lack of clarity about how AI is changing job requirements, along with other economic factors. Some economists say that current hiring freezes are correcting for the post-pandemic hiring boom (Jones, 2025), while others observe that AI may be reducing opportunities for entry-level jobs that have historically enabled workers to build skills for higher-wage roles (Heck et al., 2026). It will take several years or more to bring clarity to how AI will reshape jobs and workforce demand.

In addition to AI skills, AI fluency (i.e., the ability to ethically and skillfully use and make decisions about AI tools) is increasingly important to graduates' future job prospects and success in the workforce. AI fluency requires knowledge and experience across a variety of AI tools and the ability to make informed decisions about them. This includes knowing which AI tools to use for which purposes and why, considering varying operating costs, levels of reliability, and details about underlying LLMs or SLMs. In the era of "deep fakes" in images, audio, and video, learners need to be able to recognize when AI might be misrepresenting reality. AI fluency also includes an understanding of the various data privacy and intellectual property risks associated with different tools, and their different environmental impacts. And, of course, the ability to answer the question of whether AI is an appropriate choice in the first place.

Institutional Policy, Transparency, and Academic Integrity

Institutional policies and guidance for the use of AI tools in teaching and learning are being rapidly developed to help faculty, leaders, staff, and learners navigate the increasingly complex AI landscape. Policies and guidance also often include AI literacy and training for faculty, staff, and learners to empower informed decision-making, open discussion, and a nuanced understanding of key issues. These policies usually include sections on academic integrity, AI governance, processes for vetting AI vendors, AI use in instruction and faculty autonomy, accessibility, data privacy, and intellectual property. While institutional AI policies often include all of these areas, this section of the report focuses on academic integrity policies and the transparent uses of AI in the classroom. These guidelines are also important to learners, with 97% of those surveyed saying institutions should adopt clearer policies (Flaherty, 2025). In response, colleges and universities across the country are rapidly developing guidance and policies to provide clarity on the ethical, transparent, and appropriate uses of AI tools.

Institutional Policies for AI in the Classroom

For teaching, in particular, some institutions allow faculty to choose the AI policy that best suits their particular academic field and approach. At Dallas College and the University of South Carolina, faculty have the option of adopting one of three AI policies for each course that they teach, effectively creating a "red light, yellow light, green light" set of options. The red light option is a policy prohibiting any use of AI, the yellow light option allows AI for specified purposes with clear and transparent citations, and the green light option allows AI for any purpose that augments (but not replaces) learning in the course with citations. In focus groups, learners cite the following as examples of the intentional adoption of such policies:

- **"Green light" example:** Faculty in business courses might encourage the use of AI for any tasks that create efficiencies or enhancements that might be valued in a corporate environment.
- **"Yellow light" example:** Faculty in statistics could allow the use of AI tools to analyze large datasets, and computer science faculty could allow AI to be used as a 24/7 tutor for difficult coding projects.
- **"Red light" example:** Faculty in humanities courses might prohibit the use of any AI tool to ensure the learner performs the required critical thinking and analysis that accompanies many reading and writing assignments.

The variance of these policies recognizes that different approaches to AI make sense depending on the course and the learning objectives in each domain and subject. Without clear guidelines, issues related to academic integrity and ethics become more problematic, and different rules for different courses may create a confusing environment for learners.

Transparency in AI Use

Many institutions are discovering that transparency is an important component of their guidelines on the use of AI in academics and is becoming central to questions about academic integrity and the ethical use of AI tools. Transparent uses of AI include citation and documentation of when, how, and why a tool was used, as well as the process by which the tool was used. A learner may be in violation of academic integrity policies at an institution if there is a lack of transparency about the AI tools that were used. Notably, AI tools themselves can be enlisted in documenting the process by which they were used and the ways in which learners engaged with them.

Efforts to Safeguard Academic Integrity

There are various risks to academic integrity that also vary by modality. For in-person courses, most of the risk lies in activities happening outside the physical classroom. For online courses, there is the risk that an AI agent can be tasked with completing work on a learner's behalf in the learning management system. Online course providers should be working to address and mitigate this risk in the current environment. SNHU, for example, is working with its information technology and legal teams as well as its LMS partner to put identity verification processes in place to help prevent this from happening. SNHU is also doing work to create authentic assessment processes in the LMS, both with and without the use of AI tools.

Sidebox 4. AI and the Future of Academic Research

Across the interviews conducted for this research paper, multiple practitioners noted the extent to which academic research is likely to be transformed by AI. AI's ability to analyze vast amounts of quantitative and qualitative data in short periods of time, along with its ability to integrate data in new ways, could significantly speed up and advance academic research and innovation. Practitioners believe that significant advances in academic research could be made in the social sciences and in STEM-related fields, including biomedicine, robotics, and computer science. Innovations could lead to new cures for diseases, such as cancer, and other ailments. One initiative at The Ohio State University seeks to leverage AI to enable cross-departmental collaboration. The AI(X) hub is a research center that connects employer partners and academic researchers across 15 colleges, including medicine, humanities, social sciences, agriculture, business, and engineering (The Ohio State University, 2026). The broader impacts of the ability to advance academic research more quickly could include new experiences and opportunities for learners, faculty, and workforce partnerships – all of which could transform the future of learning in important and meaningful ways.

Institutional Challenge and Decision Points: Appropriate Guidance to Empower Augmented Teaching

AI has several benefits: an ability to create efficiencies in teaching tasks, create more time for relationship-building with learners, improve equitable access to personalized tutoring, and create dynamic content that is potentially more relevant to learners and more accessible to those with disabilities or multilingual needs.

To support academic relevance and engagement with AI, institutions should:

- Promote clear policies for teaching and learning that provide guidance on academic integrity and transparency (e.g., red light, yellow light, green light options for instructors to customize in their courses) and that safeguard students' agency in the learning process.
- Educate users on the environmental impacts of AI and the decision points on how AI tools differ in their impacts and can be intentionally selected for different purposes.
- Recognize the institution's responsibility to prepare learners for AI-era workplaces.
- Establish broader AI strategies for the institution that address real concerns about AI tools: algorithms with built-in bias, data security/privacy, accuracy of output, etc. (These issues are explored in greater detail in the operations and infrastructure paper in this research series).

Student Experience: Maximizing Human Connections and Using AI to Improve Efficiencies

A higher education institution's teaching and learning activities extend beyond student instruction and learning experiences. Students engage with institutions on financial aid issues, transfer credit, credit for prior learning, career services, academic advising, tutoring, mentoring, social activities, student housing, and support services that can include emergency grants, food, housing, and mental and physical health. There are many examples of institutions using AI to enhance these services and supports, provide sophisticated just-in-time analysis that identifies students who may be at risk academically, or replace some of the need for a human staff member to answer questions or provide information. As some institutions experiment with how and when to engage AI tools for administrative or support purposes that shape the student's experience, one important question they wrestle with is: How much is too much? This is particularly the case when it comes to substituting chatbots for human interactions.

Below are several examples of AI use in the student experience in higher education, followed by a discussion about the tension around employing AI tools as a substitute for interactions with human staff.

Student Experience: Examples of AI in Practice to Augment the Learner Experience

- **Use case: Predictive analytics to identify learners struggling academically.** Institutions of higher education can utilize AI to identify at-risk learners based on factors such as missed assignments, not attending class, or receiving low grades, and then proactively intervene to improve outcomes (Brady, 2024). This use can allow advisors with large caseloads to identify the learners that may need their immediate attention.
    - **Institutional example:** Ivy Tech College developed an AI algorithm that identified students at risk of not passing their courses, resulting in the largest drop in D and F grades in 50 years (Brady, 2024).
- **Use case: AI-driven career advising for learners.** Generative AI tools can help learners with a wide variety of tasks on their career navigation journey. AI has the potential to provide career advice that is tailored to learners' majors and interests, provide engaging ways to explore career options, assist with employer research, conduct skill assessments, generate questions for interview preparation, develop or improve job application materials, and provide translation support for bilingual learners, among many other supports (Brady, 2024).
    - **Institutional example:** University of Colorado at Boulder's Career Services office uses an AI-powered résumé review tool to provide personalized feedback, while using LLMs to assist with career searches (Brady, 2024).
- **Use case: AI-driven academic advising maximizes personal relationships and mentoring.** In interviews, faculty and practitioners noted that AI tools are being leveraged by some institutions to offload some of the simpler information advising functions in order to maximize the time academic advisors spend mentoring learners and building relationships. For example, AI tools can be leveraged to provide guidance that informs course selection that takes into account a student's schedule, requirements for graduation, course sequencing due to prerequisites, and the learner's academic performance and career goals (Brady, 2024).
    - **Institutional example:** SNHU and WGU (see more details in the next section entitled "Student Support Challenge: AI Chatbots, AI Agents, and the Preference for Human Connection").
- **Use case: Streamlined recognition of prior learning and transfer credit.** AI tools can be applied to tasks related to evaluating a student's skills and knowledge for the purposes of awarding transfer credit or awarding of credit for prior learning (CPL). In the case of transfer credit, AI can perform the analysis of the student's transcript alongside their degree plan and the institution's transfer policies. This can partially automate a process, with final review by an institutional administrator before awarding transfer credit. Similarly, CPL processes for awarding credit for military learning or industry-recognized credentials could utilize AI for mapping skills to course learning outcomes that are required for making credit recommendations. And other forms of CPL that rely on individualized assessments could assist learners in documenting and providing evidence of learning outcomes. Automating these processes can reduce workloads and streamline the processes for learners, allowing them to register for courses without potentially wasting time and money on a course they may not need to take.

- **Institutional example:** The Los Angeles Community College District and the University of California San Diego are engaging in a grant funded pilot of a prototype AI-driven assessment tool to support the equitable award of CPL credits as part of the credentialing of firefighters (California Education Learning Lab, n.d.).

- **Use case: Providing assistance to students during the admissions and registration processes.** AI can support students at various stages of the admissions and registration processes. For example, chatbots can answer prospective student questions about the admissions process, and AI agents can alert learners to missing documents, help them schedule appointments or onboarding events, and connect them to scholarship opportunities (Brady, 2024; Stone, 2025).

    - **Institutional example:** Southeast Missouri State University offers AI assistance for many of the basic tasks during the admissions process described above (Slagg, 2025).

Student Support Challenge: AI Chatbots, AI Agents, and the Preference for Human Connections

As documented above, there are numerous ways institutions utilize chatbots and other AI-powered processes to augment staff interactions that provide basic information. This empowers staff to expand their advising and mentoring capacities. These uses of AI can ease the workload of administrative staff while making information and guidance available to students on a 24/7 basis (Brady, 2024).

Institutions have also started to test ways to use chatbots to provide other kinds of learner support, but these applications of AI can raise questions internally about whether AI should be used in certain learner-facing supports. Learner advising is a good case in point, as illustrated by examples from SNHU and WGU:

- **SNHU.** Over the last several years, SNHU has piloted and implemented chatbots for a variety of advising and student support use cases. Early uses of "Penny the chatbot" experimented with conversational AI tools that engaged students to identify success barriers, connect students to resources, and flag more complex issues for advisors. Evaluations of the Penny pilot indicated that students were actively engaged and that the tool helps boost student persistence rates by 1.4% and course success rates by 1.3% (EdSights, 2024). SNHU AI experts nevertheless recognize that human advisors are supported rather than replaced by AI tools. For example, if a learner is trying to decide whether they will take classes online or in a physical classroom, an advisor would walk the learner through questions about what they value in a learning experience, whether they are juggling paid work or family responsibilities, and what kind of transportation access they have. With AI, the learner might have worked through some of those initial questions in advance of the advising session, freeing up the advisor to help the learner jump into more meaningful questions, such as how college can fit into their life and what supports they might be interested in.

- **WGU.** has experimented with learner advising that goes beyond chatbots to include an AI tool that can respond to questions while drawing on institutional guidance documents on mental health, academic support, financial aid, career pathway exploration, compassionate coaching techniques, and general information. WGU is also testing out the use of a single AI agent versus multi-agent systems that can accomplish tasks for learners, such as setting up appointments with advisors on the calendars of both the learner and the advisor, sending more complicated questions to the registrar's office, or securing proof of enrollment from another institution. Using this system of agentic actors could potentially free up the learner to focus on their coursework instead of these administrative tasks. In testing these AI-powered systems with learners, WGU found that some learners found it very helpful and valued having "judgment-free" support available 24/7, particularly if they had questions that they worried might be considered too "silly" by their advisors (Hodgson, 2025). Relying on AI agents for all learners, however, may be further down the road, as the occasional errors made by AI (e.g., hallucinations or "workslop") were seen as potentially damaging to the trust learners would need (Hodgson, 2025).

Some of the learners attending other institutions who were interviewed for this report were somewhat dismissive of the use of chatbots for learner support, with one saying that whenever he saw a chatbot on his university's website, his response was, "There's no point… I'm not going to waste my time or my energy on this chatbot."

WGU's learner surveys suggest that institutions need to exercise some caution on where and how to substitute chatbots for human support staff. In one survey, 81% of learner respondents were open to using AI for answering general questions, but only 54% were open to using a chatbot for tracking academic progress, and only 36% were comfortable receiving academic or administrative support from AI. Learner respondents further noted that they vastly preferred human advisors for emotional support (84%), complex academic planning (75%), and motivation/encouragement (71%) (WGU Labs, 2025). The lessons WGU has learned from testing and learner surveys is that AI is most effective when aligned with learners' stated needs for speed and convenience, that the institution needs to be transparent about when and how AI is being used, and that learners need to continue to have access to human guidance for more complex needs (WGU Labs, 2025).

Institutional Challenge and Decision Points: Balancing AI Efficiencies with the Need for Human Interactions in the Student Experience

Institutional leaders can achieve impressive efficiencies in a number of AI use cases in student experience. But leaders need to weigh these benefits against students needing or preferring interactions with human staff members. Some considerations for these decisions include the following:

- AI is most effective when aligned with a learner's stated needs for speed and convenience.
- The institution needs to be transparent about when and how AI is being used.
- Learners need to continue to have access to human guidance for more complex needs (WGU Labs, 2025).
- Institutions need to exercise caution and engage in significant testing before implementing AI for high stakes decision-making, student-facing support, or student guidance, particularly on issues of admissions, college credit, basic needs, or financial aid.

References

Brady, C. (2024, December). The transformative potential of artificial intelligence: Recommendations for student affairs leaders. *NASPA–Student Affairs Administrators in Higher Education & Glass Half Full Consulting.* https://www.naspa.org/files/dmfile/NASPA-Report---The-Transformative-Potential-of-AI--December-2024.pdf

California Education Learning Lab. (n.d.). AI-assisted assessment to award credit for prior learning (A4CPL). https://calearninglab.org/project/a4cpl/

Center for Higher Education Policy and Practice. (2023, July 27). Postsecondary CBE: A primer for policymakers. https://www.chepp.org/wp-content/uploads/2023/07/Postsecondary-CBE-A-Primer-for-Policymakers_7.25.23.pdf

EdSights. (2024). Southern New Hampshire University's use of artificial intelligence to improve student outcomes. https://cdn.featuredcustomers.com/CustomerCaseStudy.document/SNHU_Case_Study.pdf

Ellucian. (2024, October 22). Ellucian's AI survey of higher education professionals reveals surge in AI adoption despite concerns around privacy and bias. https://www.ellucian.com/newsroom/ellucians-ai-survey-higher-education-professionals-reveals-surge-ai-adoption-despite

Farmer, T. (2025, November 12). Navigating the AI landscape: How students experience innovative learning tools. *WGU Labs.* https://www.wgulabs.org/posts/navigating-the-ai-landscape-how-students-experience-innovative-learning-tools

Flaherty, C. (2025, August 29). How AI is changing – not 'killing' – college. *Inside Higher Ed.* https://www.insidehighered.com/news/students/academics/2025/08/29/survey-college-students-views-ai

Gamby, T., Kil, D., Koblic, R., LeBlanc, P., Moldoveanu, M., & Siemens, G. (2025, November 24). From personalized to precision learning: Unlocking the next transformation in higher education. *EDUCAUSE Review.* https://er.educause.edu/articles/2025/11/from-personalized-to-precision-learning-unlocking-the-next-transformation-in-higher-education

Hardman, P. (2025, January 31). The AI illusion in L&D. *Dr Phil's Newsletter.* Substack. https://drphilippahardman.substack.com/p/the-ai-illusion-in-l-and-d

Heck, J., Muro, M., Methkupally, S., & Siegmund, J. (2026, April 2). How AI may reshape career pathways to better jobs. *Brookings.* https://www.brookings.edu/articles/how-ai-may-reshape-career-pathways-to-better-jobs/

Hodgson, J. (2025, November 19). Exploring multi-agent and single-agent systems: How Labs is building an AI-powered student support assistant. *WGU Labs.* https://www.wgulabs.org/posts/exploring-multi-agent-and-single-agent-systems-how-labs-is-building-an-ai-powered-student-support-assistant

Jaumotte, F., Kim, J., Koll, D., Li, E. Z., Li, L., Melina, G., Song, A., & Tavares, M. (2026, January). Bridging skills gaps for the future: New jobs creation in the age of AI. *International Monetary Fund.* https://www.imf.org/-/media/files/publications/sdn/2026/english/sdnea2026001.pdf

Jones, H. (2025, November 27). AI is not killing entry level jobs. *Forbes.* https://www.forbes.com/sites/hessiejones/2025/11/24/ai-is-not-killing-entry-level-jobs/

References

Kosmyna, N., Hauptmann, E., Yuan, Y. T., Situ, J., Liao, X., Beresnitzky, A. V., Braunstein, I., & Maes, P. (2025, June). "Your brain on ChatGPT: Accumulation of cognitive debt when using an AI assistant for essay writing task." https://arxiv.org/pdf/2506.08872

Kovanović, V., Barthakhur, A., Joksimović, S., & Siemens, G. (2025, December 4). Why universities need to radically rethink exams in the age of AI. *Nature, 648,* 35–37. https://www.nature.com/articles/d41586-025-03915-7

Muukkonen, H., Lakkala, M., & Hakkarainen, K. (2009). Technology-enhanced progressive inquiry in higher education. *Encyclopedia of information science and technology* (2nd ed., Chapter 592). IGI Global. https://www.igi-global.com/chapter/technology-enhanced-progressive-inquiry-higher/14130

Neha, S. (2025, March 4). How does AI personalize learning experiences for students? *Ellucian Blog.* https://www.ellucian.com/blog/how-does-ai-personalize-learning-experiences-students

Posorski, E. (2025, August 1). The collaborative AI classroom: Teaching students to work with, not against, AI tools. *Faculty Focus.* https://www.facultyfocus.com/articles/teaching-with-technology-articles/the-collaborative-ai-classroom-teaching-students-to-work-with-not-against-ai-tools/

Reeves, S. (2025, July 31). 5 strategies for designing student-centered AI experiences. *WGU Labs.* https://www.wgulabs.org/posts/5-strategies-for-designing-student-centered-ai-experiences

Rix, K. (2026, April 7). Colleges ramp up offerings to teach students to be AI ethicist. *Higher Ed Dive.* https://www.highereddive.com/news/colleges-programs-ai-ethicists

Slagg, J. (2025, October 23). AI-powered campus infrastructure helps budget-strapped universities scale. *EdTech Magazine.* https://edtechmagazine.com/higher/article/2025/10/ai-powered-campus-infrastructure-helps-budget-strapped-universities-scale-perfcon

Stone, B. (2025, October). AI playbook: A comprehensive strategy for higher education. *EdTech Magazine.* https://edtechmagazine.com/higher/article/2025/10/ai-playbook-comprehensive-strategy-higher-education-perfcon

The Ohio State University. (n.d.). AI(X) hub: AI innovation for the public good. https://ai.osu.edu/research-and-innovation/aix-hub-ai-innovation-public-good

WGU Labs. (2025, October 21). Students are open to AI-powered support — in some contexts. https://www.wgulabs.org/posts/students-are-open-to-ai-powered-support---in-some-contexts

Contributors

CHEPP is grateful to the authors of this research series, Meaghan Rajkumar, CHEPP's director of research, and our partner, Rebecca Klein-Collins. We are also grateful for the invaluable contributions of the CHEPP staff for their vision, support, and ongoing improvement of this report: Jamie Fasteau and Brittany Matthews.

We are also grateful for the many individuals who informed the series through individual or group interviews. These subject matter experts included university technologists and learning specialists involved with AI development and deployment, administrators setting institutional policy and guidance, faculty incorporating AI tools and skill-building into their courses, and independent non-profit organizations supporting and monitoring these efforts.

The SNHU experts interviewed include:

- **Jennifer Batchelor**, Executive Vice President and University Provost, Southern New Hampshire University
- **Kristen Fitzgerald**, Associate General Counsel, Southern New Hampshire University
- **David Humphreys**, Senior Director, AI Integration, Southern New Hampshire University
- **Jon Kamyck**, Senior Associate Dean, STEM, Southern New Hampshire University
- **Paul LeBlanc**, President Emeritus, Southern New Hampshire University
- **Lundy Lewis**, Professor, Computer Information Systems, Southern New Hampshire University
- **Evan Lowry**, Senior Vice President and General Counsel, Southern New Hampshire University
- **Robert MacAuslan**, Vice President, AI, Southern New Hampshire University
- **Shawn Powers**, Senior Director, AI Policy, Southern New Hampshire University
- **George Siemens**, Chief AI Officer, Southern New Hampshire University
- **Sahil Singhal**, Vice President, Machine Learning and Data Science, Southern New Hampshire University
- **Jaymes Walker-Myers**, Vice President, Learning Science and Assessment, Southern New Hampshire University

Contributors

Additional subject matter experts interviewed include:

- **Sarah Egan Warren**, Assistant Teaching Professor, Institute for Advanced Analytics, North Carolina State University
- **Betheny Gross**, Research Director, WGU Labs
- **Alex Kalinowski**, Assistant Professor, Computer Science and Technology, Empire State University
- **Roger Kohler**, Director for AI Solutions and Architecture, Arizona State University
- **Rachel Levy**, Executive Director, Data Science Academy, and Professor of Mathematics, North Carolina State University
- **Caitlin Mills**, Associate Professor, Educational Psychology, University of Minnesota
- **Greg Morris**, Senior Vice Provost of Academic Services, Dallas College
- **Norman Palmer**, Director of Technology Innovation, Complete College America
- **Shankar Prasad**, Chief Strategy Officer, Carnegie Higher Education
- **Andreas Schleicher**, Director for Education and Skills, OECD
- **Diane Shichtman**, Associate Professor, Computer Science and Technology, Empire State University
- **Mitchell Stevens**, Professor, Graduate School of Education, Stanford University
- **Nan Travers**, Director, Center for Leadership in Credentialing, Empire State University (Retired)

Finally, we extend our thanks to the learners who shared their own experiences with AI and their views on how AI is affecting their educational journeys and career plans. Thank you to Today's Students Coalition and SNHU for connecting the authors with these learners. They include:

- **Lenyx Coviak**, Student, University of South Carolina
- **Nicholas Lujan**, Student, Mendocino College
- **Mina Rizk,** Student, Middlebury College
- **Zahra Jafri,** Student, Southern New Hampshire University