Twelve Months of the AI Design Assistant

Insights and success stories from Anthology Blackboard's pioneering journey with generative AI

Global Edition

AI

> " Higher education leaders know that, like any technology, artificial intelligence creates opportunities to enhance the learning experience as well as risks. As the leader and the first LMS provider to bring practical and powerful AI tools to the virtual classroom, we recognize our responsibility to help our customers navigate this changing landscape. "
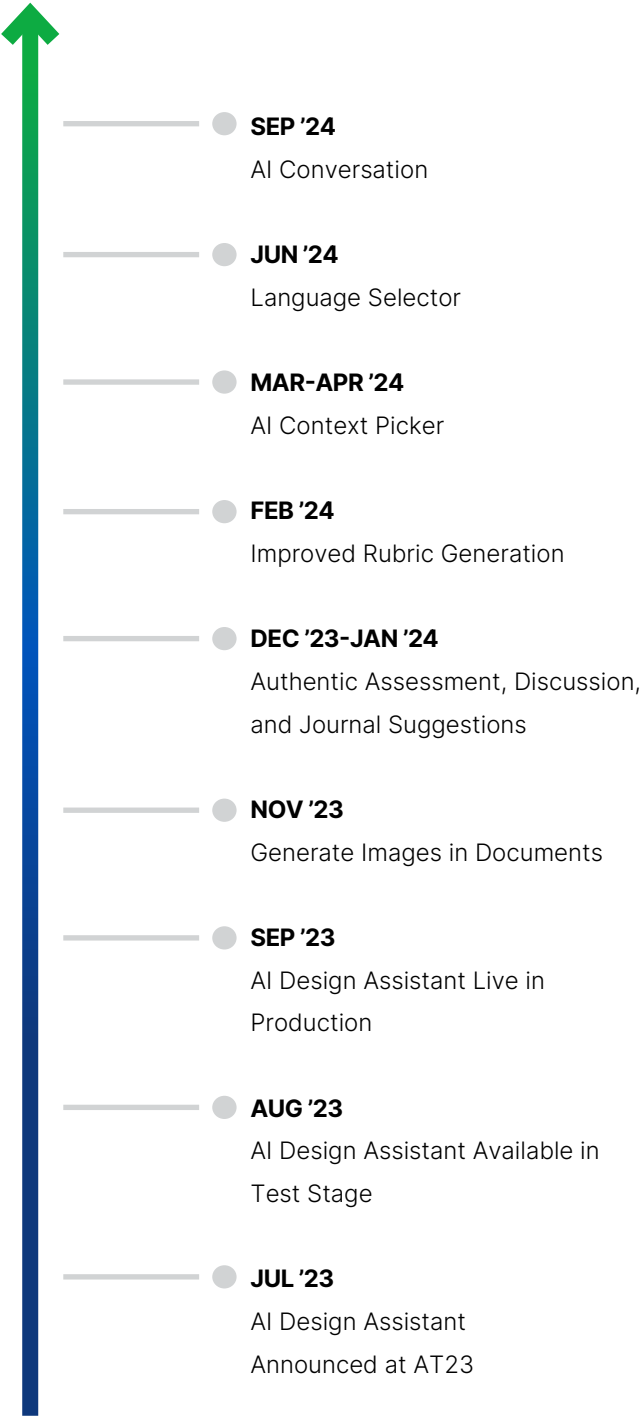>
> —Bruce Dahlgren, CEO, Anthology

In July 2023, as part of the Anthology Together '23 user conference in Nashville, Tennessee, Anthology announced the launch of the AI Design Assistant in Anthology® Blackboard. Powered by Microsoft® Azure OpenAI Service, the AI Design Assistant leverages generative AI to inspire instructors' course and assessment creation, with the initial release providing suggestions for course titles and modules, images, formative test questions, and grading rubrics. These features went live in September 2023, making Blackboard the first major learning management system (LMS) to embrace generative AI capabilities.

The Blackboard team collaborated extensively with institutional leaders before the release of the AI Design Assistant to ensure the responsible application of AI in education. An AI Advisory Council was established, comprising leaders from across the globe, and the input from members led directly to the publication of Anthology's Trustworthy AI Framework. Council members also had a hands-on role in developing the AI Design Assistant functionality, with rigorous testing conducted before release.

The result has been functionality that is fit for purpose in education, which has made a significant difference in instructors' lives at more than **600 institutions** around the world.

This paper takes you through the full process that Blackboard has undertaken to bring AI innovations to market, the insights we've gleaned on institutional adoption and user behavior, and the outcomes it has driven for our institutional partners.

The AI Design Assistant and Generative AI Journey

SEP '24
AI Conversation

JUN '24
Language Selector

MAR-APR '24
AI Context Picker

FEB '24
Improved Rubric Generation

DEC '23-JAN '24
Authentic Assessment, Discussion,
and Journal Suggestions

NOV '23
Generate Images in Documents

SEP '23
AI Design Assistant Live in
Production

AUG '23
AI Design Assistant Available in
Test Stage

JUL '23
AI Design Assistant
Announced at AT23

A Collaborative Approach to Establish Guardrails for Trustworthy AI

Anthology began discussing the subject of AI with partner institutions as early as the 2018 Blackboard AI in Higher Ed Conference. These conversations accelerated in November 2022, when the release of ChatGPT sent shockwaves through the education sector and sparked concerns from many stakeholders.

While Anthology was always optimistic about AI's potential, we were similarly aware that stringent guardrails were required to mitigate risks and implement AI technologies in an ethical way. In early 2023, Anthology created a cross-functional working group to establish a framework and principles, aligned with the NIST AI Risk Management Framework, and implemented internal policies to ensure that our product features use generative AI in a responsible way. To ensure the product development was in line with the needs of the sector, we assembled an AI Advisory Council comprised of education leaders from all parts of the globe.

More than just the company tagline, Anthology's belief in the Power of Together™ extends beyond our partnership with institutions to also capture the way we work with technology partners. Anthology and Microsoft have a long history of working together to deliver innovation in education technology, and both are dedicated to delivering AI in an ethical fashion. Anthology chose to explore possibilities with Microsoft Azure OpenAI service based on their vision and leadership in cloud AI developer services, our long-standing relationship, and a shared commitment to responsible AI by design.

The input from our institutional and technology partners helped shape the publication of the Anthology Trustworthy AI Approach. This outlines seven key principles that shape everything Anthology does related to AI, spanning internal and external practices, with application across legal, governance, product development, and more. The Trustworthy AI Approach has been shared extensively with partners and the industry to ensure complete transparency on our direction in this space.

> "
> A further takeaway was the need for clarity over what constitutes acceptable use of AI. Frameworks and guidance play a pivotal role not only in safeguarding against harm, but in giving organisations the confidence to innovate responsibly. Given this, Anthology's Trustworthy Approach to AI deserves particular merit.
> "
>
> —Tom Moule, Senior AI Specialist at The National Centre for AI in Tertiary Education, Jisc
> Read the Case Study

Starting in April 2023, Anthology engaged the AI Advisory Council and Microsoft to investigate opportunities for generative AI to be applied within the Blackboard LMS. Discussions with council members clearly outlined a key need for institutions: their instructors were spending a lot of time on administrative and production tasks, reducing the time they had available to spend with their students.

This insight led to the creation of the AI Design Assistant in Blackboard. Announced at the Anthology Together '23 conference in July and then made available to all Blackboard institutions in the September release, this

provided generative AI suggestions to inspire course modules and titles, images, formative test questions, and grading rubrics, all based on the existing course content. The AI Advisory Council was involved in rigorous testing of these features prior to them being made publicly available, complementing the Trustworthy AI Approach to deliver responsible innovation.

A Relentless Commitment to Institutional and User Choice

A fundamental principle of Anthology's approach to AI, as outlined in the Trustworthy AI Framework, is *Humans in Control*. We are committed to providing institutions with choice as they look to navigate their own path into AI and establish workable policies, and to ensuring that the user maintains control over any AI-generated workflows in Blackboard.

Our conversations with institutions, both as part of the AI Advisory Council and elsewhere, have revealed that there remains a large gap in terms of AI policy. Many institutions don't have any policies or guardrails in place or have only established them recently and are facing challenges as they are implemented on campus. To assist institutions in this pursuit, Anthology has released an AI Policy Framework which walks through the steps to establish AI policies and sponsored a detailed Strategy Guide with MIT SMR Connections which shares experiences from a range of institutional leaders on best practices in this area.

All AI Design Assistant features within Blackboard must be enabled by the institution, allowing them to assess each capability in line with their broader AI policies. Institutions can, for example, enable rubric creation but not suggestions for test questions, if they believe that to be the best application for their users. Institutions are empowered to use the tools in the way they see beneficial, which has been positively received by our global community.

> "We had received guidance from the Texas State University System to start getting our students ready for using AI tools in the future, so it made sense that our faculty should be using them as well. The fact that the initial set of AI Design Assistant capabilities were faculty-facing made adoption less anxiety-inducing for instructors, as did the transparency on how the tools were developed and the open dialog with Anthology - it gave me great confidence that Anthology approached this with the right mindset."
>
> —Jacob Spradlin, MEd, Executive Director of Online Instructional Development and Support, Sam Houston State University

Once enabled, the instructor maintains full control over the AI Design Assistant's output. Wherever AI is involved in the workflow, the teacher can review, edit, and ultimately accept what has been suggested before it is included in their course, ensuring that innovation doesn't come at the expense of instructor autonomy.

Delivering Incredible Benefits for Institutions

The response to the AI Design Assistant has been remarkable. Within the first 12 months, **618** institutions have enabled one or more of the capabilities, powering a staggering **738,414** education tasks. You read that right—the AI Design Assistant has been leveraged almost three-quarters of a million times by instructors, delivering benefits not only for them but also for the learners in their classes.

We polled more than 500 instructors on their experience with the AI Design Assistant, with **90%** agreeing that it offers inspiration, **92%** saying that it has proved useful, and **96%** confirming that it is saving them time.

> "Blackboard's AI Design Assistant has taken a task which might have taken me a full day down to a few minutes. This has given me more time in the classroom with my students and allows me to give them the experience that I would like them to have."

—Dr. Steven Montagu-Cairns, Associate Professor in Law, University of Leeds
Read the Case Study

When these time savings for each individual instructor are applied across the full faculty cohort, the advantages for institutions are immense. Bellevue University, for example, employed the AI Design Assistant to assist with the labor-intensive task of keeping their professional education course content up to date and reported that it **cut what was previously a sixteen-week instructional design process down to just eight weeks.**

> "[With the help of generative AI tools] we're able to get course content drafted for review sooner and at a higher fidelity than ever before, so it's been helpful to give subject matter experts the opportunity to not only see content sooner, but in a format that's very close to the student experience. Now they're not just reviewing for accuracy and building upon existing content, but we have the bandwidth to partner with them to create more sophisticated and engaging course content for our students and take advantage of the newest content types and features of Blackboard."

—Biz Rapp, Senior Instructional Designer, Bellevue University
Read the Case Study

The most popular AI Design Assistant feature to date has been **test question generation**, which has been used more than **119,000** times by the **493** institutions that have enabled this capability. This offers two clear insights. First, creating test questions is a key pain point for instructors, and both education technology

providers and institutions need to invest resources in addressing this issue, particularly for faculty managing many courses. Secondly, it reflects a willingness for instructors to leverage AI in important tasks, provided that the output is strong and they can approve prior to it being accessed by students.

> "Using the AI Design Assistant, I created nearly a hundred quiz questions and multiple learning modules with pictures and descriptions, finishing the task in a fraction of the time I had budgeted. This efficiency is invaluable, especially for faculty engaged in extensive research responsibilities."
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> —Simona Narubin Durbin, Associate Director of Assessment and Education, University of Illinois Chicago
> Read the Interview

The overall acceptance rate for AI suggestions has been **47%**, which is very encouraging. It shows that many instructors see value in the AI Design Assistant; however, they are exercising the control they have over the workflows to review and only accept quality material, thus striking a balance between efficiency and effectiveness. The acceptance rate for test questions is the highest at **69%**, further demonstrating the value that teachers are deriving from this feature.

Finally, all the insight we've gleaned from the AI Design Assistant is directly informing the ongoing development of the tool. Having observed almost immediately the popularity of test question generation, we then developed capabilities for authentic assessments—such as journals, assignments, and discussions—and included them in the second release. Further improvements include the Context Picker, which allows the instructor to select specifically which pieces of course content are used to inform the AI Design Assistant's suggestions and offers greater control over language outputs for institutions or courses that involve multiple languages.

A Platform for Further Innovation

The success of the AI Design Assistant—and the ongoing direction from the AI Advisory Council, Microsoft partnership, and Trustworthy AI Approach that combined to bring it to market—places Anthology in an unrivaled position to continue to innovate with AI.

> "It's not just marketing – Anthology are the market leaders for AI companies in the higher ed LMS space."
>
> —Phil Hill, EdTech Consultant and Industry Analyst, Phil Hill & Associates
> Listen to the Podcast

Anthology has just released the AI Conversation tool in Blackboard, taking what we've learned by providing generative AI to instructors to create engaging tasks for students. Based on the Socratic conversation model, the AI Conversation tool allows the instructor to set a topic and a relevant AI persona to lead the discussion, and then add it as an assessment item within the course. The student will then engage in a conversation with the AI persona, which responds to their comments with further questions, pushing the learner to think laterally and expand their knowledge of the subject area, before being asked to provide a reflection on the task. Once complete, the instructor has full visibility of the exchange and the student's reflection, which can be reviewed and graded.

> "Faculty has been really interested in the new AI Conversation tool and appreciate that the Socratic Questioning exercise focuses on getting the student to think about the subject matter themselves. Some faculty members are already itching for the expanded capabilities to launch so they can have role-play conversations and more."
>
> —Jacob Spradlin, MEd, Executive Director of Online Instructional Development and Support, Sam Houston State University

Further innovation has already been announced. The new Blackboard Content Designer, which makes creating engaging course documents easier than ever, will soon feature AI suggestions to inspire instructors and save them time. An exclusive partnership with Obrizum®, announced at Anthology Together '24 in July, will see AI employed to deliver genuine adaptive learning activities within Blackboard, including virtual and augmented reality activities. As always, our community of global institutions will be involved in the development and launch of these features, and the Adaptive Learning Advisory Council, formed to support this effort, has hundreds of participants representing a wide range of global institutions, including community colleges, private universities, HBCUs, business schools, military colleges, large public universities, and more.

> "There's so much potential for new technology to help support students and faculty, and that's why I collaborate with Anthology as much as possible when it comes to product development. Adaptive Learning is just one of many areas where I'm excited to be involved and help shape what's next - and I'm comfortable knowing Anthology has the right mindset on how to develop AI tools in ways that are useful and ethical. It's an exciting time to be in higher education."
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> —Craig Pember, MEd, Assistant Director Instructional Technologies, Lamar University

What's Next?

Our experience in bringing AI technologies to market indicates that close partnerships between institutions and technology providers lead to the best results. We encourage Blackboard customers to join the Anthology Community, participate in the Anthology Idea Exchange, and keep up to date with the latest innovations in AI by registering for our quarterly roadmap webinars.

To learn more about the AI capabilities in Blackboard, contact Anthology for a demonstration or sign up for a free trial.

About Anthology

Anthology delivers education and technology solutions so that students can reach their full potential and learning institutions thrive. Millions of students around the world are supported throughout their education journey via Anthology's ecosystem of flagship SaaS solutions and supporting services, including the award-winning Blackboard® (LMS), Anthology® Student (SIS/ERP), and Anthology® Reach (CRM). Through the Power of Together™, we are uniquely inspiring educators and institutions with innovation that is meaningful, simple, and intelligent to help customers redefine what's possible and create life-changing opportunities for people everywhere. anthology.com