



Scaling Open Education: Institutional Strategies and the Emerging Role of GenAI

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The potential of **open education** is compelling to higher education reformers.¹ It can reduce barriers to knowledge, empower students, and engage instructors and students in solving real-world problems together.

Open educational resources (OER) are one part of this vision. They eliminate textbook costs and allow instructors to revise and remix materials to make content relevant to students' lives and worlds beyond the classroom.² OER also facilitate **open educational practices (OEP)**, which invite students and instructors to co-create knowledge, breaking down the instructor-student hierarchy and barriers between the classroom and real world.³

Despite these benefits, **OER adoption** can be difficult to **scale**. Existing OER initiatives have not fully permeated most institutions or state higher education systems. Moreover, curating, creating, revising, and maintaining OER is time-consuming for instructors and requires strong institutional support. That said, **generative artificial intelligence (GenAI)**, when used responsibly, may offer instructors and institutions new possibilities in scaling OER.

Key Terms

Open education uses OER and OEP to remove barriers and enable materials to be reused, revised, and redistributed for more accessible teaching and learning.

Open educational resources (OER) are openly licensed teaching materials that instructors can retain, reuse, revise, remix, and/or redistribute (the 5Rs of open education). OER may include textbooks, videos, tests, and assignments.

Open educational practices (OEP) are teaching practices that use OER to engage students as active contributors and center their backgrounds, needs, and voices in learning.

OER adoption includes the 5Rs of open education: retaining, reusing, revising, remixing, and/or redistributing OER.

Scaling is the process of expanding an educational innovation so it reaches more students, deepens instructional practice, advances equitable outcomes, and becomes sustained through institutional routines, roles, policies, and systems.

Generative artificial intelligence (GenAI) refers to machine learning tools that create or adapt content—like text, images, or code—based on patterns learned from existing information.

Zero textbook cost (ZTC) courses do not require students to purchase course materials. They use no-cost resources, such as library-licensed materials, instructor-created content, public-domain materials, and/or OER.

To identify conditions that support sustainable scaling of OER and OEP across a state and within institutions, SRI conducted a qualitative study across five institutions of higher education (IHEs) in Tennessee. We looked at what helps or inhibits implementation and scaling of OER and OEP, where state and IHE leaders can bolster supports, and how GenAI may support or create new opportunities for scaling open education (see box for study details). In this brief, we share practical strategies based on our study that state and IHE leaders can consider to strengthen the institutionalization and implementation of OER.

Scaling OER and OEP in Tennessee

The Tennessee Board of Regents, in partnership with Achieving the Dream (ATD), has made sustained investments to expand the use of OER and support the use of OEP. These efforts include:

- 100+ funded projects
- 80 grants over 4 years to support redesigning courses to adopt OER and/or use open educational practices
- \$2 million investment in faculty expertise
- 300+ faculty members collaborating
- 18 institutions participating
- Support for faculty sharing OER materials on [OER Commons](#)

Some Tennessee institutions also have their own campus-level OER initiatives.

About the Study

[Achieving the Dream](#) partnered with [SRI](#), a nonprofit research institute, to examine how OER are used across Tennessee institutions, what institutional conditions and supports enable or hinder scaling, and how GenAI may contribute to more effective and sustainable use of OER and OEP. In 2025, SRI collected data from:

- **5 institutions** across Tennessee
- **33 interviews** with administrators, librarians, instructors, and system leaders
- **5 course tours** with instructors who used GenAI to support OER
- **6 professional learning observations** on scaling OER and on using OER with GenAI

Strategies to Strengthen Institutionalization of OER

Scaling OER and OEP require institutionalization, which means deeply embedding supports for open education in both state and IHE systems. Based on what we learned from our study, the strategies below can help institutionalize OER within an IHE.

Integrate OER into core institutional processes. This strategy is critical for scaling because it moves OER from individual instructor use to a supported, incentivized, and sustained practice across the institution. Institutionalization requires cross-functional infrastructure, with clear roles for academic leaders, faculty, librarians, instructional designers, professional learning staff, IT, bookstore or registration staff, and institutional offices of research. In the IHEs in our study, OER was often closely aligned with mission and vision, particularly around affordability, access, and student success, and IHE leaders also consistently communicated this alignment across the institution.

However, this alignment was largely conceptual rather than structural. Study participants said that OER was encouraged but not consistently embedded in strategic planning, budgeting, curriculum review, or faculty evaluation processes. As a result, OER adoption often depended on individual instructors or department chairs to champion the work or secure short-term grant funding.

Some IHEs in our study have already started to embed OER into course structures. For example, they developed shared course shells for high-enrollment courses so new instructors automatically adopted OER materials. Beyond our study, several organizations supporting higher education have called for OER adoption to count toward tenure and promotion⁴ and have produced guidance on how to do this.⁵

Together, these insights highlight why institutionalization matters. Aligning OER with institutional missions can generate early buy-in, but without integration into formal structures and roles, efforts may remain fragmented and difficult to sustain.

Strengthen the case for open education by showing how open licensing allows instructors to revise, remix, and redistribute OER materials and engage in OEP. Zero textbook

cost (ZTC) initiatives have gained broad traction as a strategy to reduce student expenses. However, the added value of OER and OEP, especially for teaching and learning, is less widely understood. Helping instructors understand these benefits may increase buy-in and support deeper engagement with OER, including revising, remixing, and redistributing materials.

When paired with OEP, OER are associated with greater student engagement and connection to course content.⁶ OEP position students as active participants in their learning and, in some cases, as contributors to knowledge.⁷

How ready is your institution to scale open education?

Sustainable OER scaling requires a system-level approach. Rather than relying only on individual faculty champions, institutions need aligned leadership, cross-functional infrastructure, faculty support, data practices, and ongoing improvement processes.

Consider whether your institution has:

- A shared vision connecting OER/OEP to affordability, equity, access, student success, and teaching and learning
- A cross-functional team with clear roles for academic leadership, faculty, libraries, instructional design, IT, bookstore/registration, student success, and institutional research
- A strategy for selecting high-impact courses where OER can improve access and momentum
- Ongoing professional learning and compensated time for faculty to adopt, revise, remix, and sustain OER
- Institutional processes that embed OER into curriculum review, scheduling, budgeting, accessibility, faculty recognition, and continuous improvement
- Consistent data systems to distinguish OER from ZTC and track cost savings, student outcomes, equity outcomes, and instructional impact
- Clear guidance for using GenAI for OER adoption while ensuring human review, transparency, attribution, accessibility, and quality

One participant emphasized that faculty need to see OER benefits as going “beyond accessibility and free,” highlighting advantages for teaching such as the ability to tailor materials to their approach, align with desired outcomes, and involve students in developing and customizing content for their classrooms.

By clearly communicating how OER licensing enables instructors to adopt OER, and why these practices matter for student learning, states and IHEs can move beyond cost as the main rationale for OER and support deeper, more sustained use of open education to improve teaching and learning.

Improve tracking and reporting of OER adoption and impact. Tracking OER adoption is important for understanding impact and supporting scaling. While some IHEs have formally defined OER, the term is not applied consistently across roles or systems. In others, OER are grouped with broader categories such as ZTC courses.

Our study suggests that OER are often tracked through ZTC designations for practical reasons. Cost is often the most visible concern for students, and “ZTC” is an easy term to understand. Courses tagged with “ZTC” make sense to students when they navigate registration platforms, while courses tagged “OER” may be confusing to them.

What’s the difference between ZTC and OER?

Students in zero textbook cost (ZTC) courses don’t pay for required materials. Students may have the option to keep and reuse ZTC materials after a course ends depending on a materials’ license.

- ZTC courses may include OER, paid materials purchased by institutional shared library licenses, free online content (e.g., articles, videos), or instructor-created materials.
- Benefits include cost savings and curation of course materials.

Open educational resources (OER) are free materials with an open license (e.g., CC-BY) that allows instructors and students not just to keep and reuse the materials, but also to revise, remix, and redistribute content.

- OER can be revised to reflect course goals and student needs.
- OER enables more flexible, student-centered teaching practices.
- Benefits include cost savings and enhanced customization of materials for teaching and learning.

Why does this matter for scaling?

When all no-cost materials are tagged as ZTC, IHEs may track cost savings but miss how OER’s open licensing supports improvements to teaching, learning, and student outcomes.

“Students were like, ‘What the heck’s an ... OER course? I don’t know what that means.’ But a student knows what ZTC means ... they want the one that costs the least amount of money.”

— IHE instructor

However, using ZTC as the primary course tagging category can limit a state's or IHE's ability to distinguish OER from other no-cost materials. Without accurate tracking of true OER courses, state and IHE leaders are limited in their ability to examine how OER shapes instructional practices, such as instructors revising and redistributing the materials, or in their ability to link OER to student outcomes such as course completion, grades, or engagement.

"It's easier for us to track as an affordability program [using ZTC designations], but it's made it more difficult to ... narrow it down to specifically OER ... That's a challenge we have right now that we can't really figure out."

— OER Librarian

States and IHEs can address these limitations in two ways: by making clearer distinctions between OER and other no-cost materials, and by applying those distinctions more consistently across systems and practices to support more accurate tracking and intentional scaling.

Strategies to Enhance Implementation Supports

Even when states and IHEs prioritize OER, instructors need time, resources, and guidance to implement and sustain this work. Strong implementation supports are critical for scaling OER and OEP. States and IHEs can consider the strategies below as they build implementation capacity across a state or institution.

Continue to offer funding and time to support OER course development and maintenance. OER work often requires significant time to identify, revise, and maintain materials. Yet this time is rarely built into instructors' formal workload.

Across the IHEs in our study, participants described relying on summer work or short-term grants to redesign courses. Some said the redesign process can feel "intimidating" or "overwhelming" without dedicated time. Not surprisingly, using off-the-shelf materials—often at high cost to students—can be appealing to instructors with limited time. As a result, even when instructors are motivated to adopt OER, time demands can limit large-scale OER adoption and its long-term sustainability.

Providing structured time and incentives may help address this concern. Study participants reiterated that state and institutional grants, stipends, and release time made OER work feasible and helped them prioritize it alongside other responsibilities. In many cases, these supports allowed teams of instructors to set aside time to redesign courses together, often with clear expectations and deliverables that helped move the work forward.

"When you're getting paid to do something, it becomes a priority."

— IHE instructor

While short-term grants can help catalyze OER adoption, sustainable scale may be better supported by building ongoing support for OER development, maintenance, and professional learning into budgets, faculty support structures, and workload expectations.

Offer professional learning to support OER adoption. Even when instructors have time and incentives for OER work, they still need support to confidently revise, remix, and redistribute OER. Across the IHEs in our study, instructors described difficulty finding OER and pulling materials together into a coherent course syllabus, which can slow adoption.

“You can use OERs—curating them is a different skill.”

— IHE instructor

While some instructors felt comfortable revising existing OER, few felt prepared to redistribute their own materials without guidance on publishing, licensing, or quality. Redistributing OER is a key part of scaling because it allows materials to be reused, revised, and improved across instructors, departments, and institutions. Without support for redistribution, OER efforts may remain isolated within individual courses. Instructors are not experts in licensing or copyright law, and they need help with fair use, licensing requirements, and accessibility.

“Faculty get confused a lot when you’re helping them with OER ... what can go in it, and the legality of what you can include and not include.”

— OER Librarian

Targeted professional learning, capacity building, and accessible resources may help address these barriers. IHE leaders may consider building professional learning into existing faculty structures and supporting it with time or compensation. Faculty often have limited capacity to attend optional professional learning, especially when they have heavy teaching schedules. One participant in our study noted that “you have to compete with faculty’s schedule,” so it is important to “make it worth their while” by offering release time or financial incentives.

Participants also pointed to other helpful ways to build instructor confidence and reduce friction. These included librarian support, workshops from centers for teaching and learning, and tools such as Pressbooks. Collaborative approaches, such as team-based course development or shared course shells, may also help distribute effort and reduce hesitation about redistributing OER. Institutions may consider building the capacity of librarians, instructional designers, and other faculty and staff to provide ongoing professional learning for OER adoption.

“If we [my colleagues and I] were making something together ... then it’s not just me putting myself out there.”

— IHE instructor

Making these supports visible and easy to access may encourage more instructors to move beyond initial use toward deeper engagement, including revising, remixing, and redistributing OER.

Tailor OER Strategies by Institution Type to Support Scaling

In our study, institutional context shaped how OER were implemented and scaled. Community colleges showed the strongest alignment with open education principles. Instructors and leaders linked adoption of OER materials to institutional missions around affordability, access, and student success, with clear campus-wide communication and ties to equity goals for first-generation, Pell-eligible, and dual-enrollment students. In addition, the flatter, simpler course catalogs at community colleges may facilitate OER scaling.

By contrast, study participants from 4-year universities described OER efforts as decentralized and dependent on departmental champions. Because OER work was “siloe,” OER coordination across courses, departments, and colleges was limited, and OER were less available in upper-division courses. Larger universities also offer a wider range of subjects than the typical associates degree and general education requirements common at community colleges, making it harder for 4-year institutions to achieve OER scale.

In another recent study of Tennessee IHEs, technical colleges reported the lowest rate of OER adoption, with only 9% reporting substantial use. These institutions also reported limited faculty contributions to creating OER and lower levels of institutional funding for OER adoption.⁸ In our study, state leaders noted that technical college instructors often enter teaching as industry experts and may benefit from professional learning on instructional design and curriculum development to support OER adoption. Together, this underscores the need for targeted professional learning and shared support to scale OER at technical colleges. At the same time, technical colleges may represent an opportunity for OER scaling, given their missions around affordability, access, and student success, and streamlined course offerings.

To scale OER effectively, state and IHE leaders may consider tailoring their approaches based on differences in institutional readiness and capacity:

- **Community colleges:** Build on existing commitments to affordability, access, and student success to expand OER into more courses and sustain campus-wide supports.
- **Universities:** Strengthen coordination across departments and focus OER efforts on high-impact courses where adoption is most feasible.
- **Technical colleges:** Build foundational capacity through professional learning and resources on using OER, shared materials, and dedicated time or funding for OER work.

Strategies to Leverage GenAI in Scaling Open Education

GenAI offers emerging opportunities to support the adoption and development of OER and OEP by helping reduce some of the friction that has historically slowed OER adoption—particularly the time required to find, adapt, revise, or create OER materials. At the same time, instructors noted that effectively using GenAI for this work still depends on human review, knowledge of open licensing, accessibility practices, and sound pedagogical design. However, even instructors already using GenAI for teaching and learning were not yet leveraging these tools to support their adoption of OER and OEP. The strategies below may help institutions support instructors' use of GenAI to advance OER and OEP adoption.

Encourage instructors to use GenAI to support OER adoption. In our study, instructors used GenAI to:

- find OER repositories
- rewrite examples, simplify dense passages, or generate content at multiple reading levels to improve accessibility
- create text summaries to synthesize readings and generate discussion prompts

These early examples highlight GenAI's potential to support OER adoption. However, these uses were primarily early-stage and focused on efficiency; they point to the need for professional learning and practical examples of how GenAI can support deeper open education work.

Encourage instructors to use GenAI to support OEP adoption. Some instructors had also started using GenAI in ways that align with OEP, positioning students as contributors to knowledge rather than passive recipients. For example, students:

- used GenAI to interview a novel's character and then evaluate the accuracy and quality of the tool's responses
- generated and evaluated GenAI-written text before discussing why submitting GenAI output without human editing is problematic
- posed engineering design problems to GenAI, tested its recommendations in a lab setting, refined those recommendations, and tried again
- drafted technical manuals with GenAI and reported on how to verify the output

Although instructors did not describe these examples as OEP, they reflect student-centered learning by engaging students in analysis, questioning, and evaluation. These examples suggest GenAI can serve as an accessible entry point for more active learning. In these examples, GenAI supported OEP-style learning because students were not simply accepting AI-generated outputs; they were evaluating, testing, revising, verifying, and explaining their reasoning.

However, instructors did not describe using the open licensing of OER alongside GenAI. This suggests a missed opportunity to further support OEP. Professional learning and concrete examples of these connections may help position GenAI as an on-ramp to both OER and OEP and support broader adoption.

Offer guidance for responsible use of GenAI. As interest in GenAI grows, instructors may have questions about its accuracy, authorship, and appropriate use in teaching and learning. Indeed, some study participants described the need to carefully review GenAI content for errors, bias, or missing context, highlighting the importance of human judgment. Others expressed uncertainty about attribution, copyright, and disclosure of GenAI use in preparing course materials. Clear guidance around academic integrity and responsible practice—including expectations for fact-checking, transparency, attribution, and appropriate use—may help instructors use GenAI more confidently. Additional guidance on copyright, open licensing compatibility, and accessibility review may further support responsible implementation.

Conclusion

Given the many benefits of OER and OEP for students, and their alignment with institutional goals, state and IHE leaders may consider strengthening the systems and supports needed to scale this work. By embedding open education into institutional processes and investing in implementation supports—including supports for the emerging uses of GenAI—leaders can expand access to engaging, relevant learning experiences for more students.

So far, open education has shined in bright but disconnected spots across higher education. Individual instructors and campuses have championed open education, but its transformative power has not yet been fully realized systemwide. At many institutions, OER has not yet become fully embedded in institutional culture, policy, and routine practice. The voices of our interviewees—instructors in public two-year and four-year IHEs and leaders in a state agency—highlight both how OER are being implemented and where institutional supports may help to expand its adoption. Institutional guidance on responsible GenAI can also help unlock GenAI's underused potential to support OER efforts. The next stage of open education will require institutions and systems to move from pockets of innovation to more coordinated capacity aligning leadership, professional learning, data, policy, and responsible GenAI use in service of more accessible and engaging learning.

Looking for examples, tools, or data to support OER work at your institution?

- See how OER is being used across Tennessee in the Tennessee Higher Education Commission's [2025 Tennessee Open Education Report](#).
- Learn from SRI and ATD's efforts to implement OER and OEP in [Students' and Instructors' Experiences With Open and Culturally Responsive Education Practices](#).

Endnotes

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