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PARTNERING WITH AI TO DESIGN AN OPEN COURSE ON GOAL SETTING FOR SELF-REGULATED LEARNING: A PRACTICE-BASED DESIGN CASE

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This design case describes the creation of an open, self-paced microlearning course on academic goal setting developed within the Open Education for a Better World (OE4BW) mentoring program. The course targets diverse global learners, emphasizes accessibility, cultural responsiveness, and open licensing. I integrated GenAI throughout the process to accelerate content creation, create culturally situated personas, and produce multimedia elements. The learner-facing artefact consists of four structured modules, accessible via Canvas Learning Management System (LMS) and contains interactive H5P activities, scenario-based examples, downloadable planning templates, and narrated media. I organized the navigation by module and designed it to be mobile-friendly. Mayer's multimedia principles, Universal Design for Learning (UDL), and microlearning strategies informed the layout and sequencing, while copyright and open licensing considerations shaped resource selection and adaptations. The case foregrounds key design decisions, including AI-human collaboration workflows, accessibility trade-offs, and cultural adaptation strategies. It also addresses tensions around copyright, authorship, and ensuring relevance for learners in under-resourced contexts. Reflecting on these decision points revealed what I learned about adopting GenAI responsibly within the open education design and development process.

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INTRODUCTION

In designing this course, I began from the belief that online learning environments place new demands on learners where success depends not only on access to content, but also on the ability to self-regulate. Whether a learner is a high school or college student, or a professional seeking to upskill or reskill, academic self-regulation is important in the online learning environment. This design case examines the development of an open, asynchronous micro-course centered on goal setting as a fundamental self-regulated learning strategy. I created the course within the context of the OE4BW mentorship program.

Hence, this design case documents the design rationale, development process, and early reflections from creating a learner-centered open education resource (OER) course in ethical partnership with generative artificial intelligence (GenAI) tools. As the use of GenAI by instructional designers is growing for different tasks (Luo et al., 2025), this design case is illustrative and may be of use to readers. What makes this design case unique is its emphasis on the use of AI tools for co-design and accessibility, as well as copyright, wide audience representation, and alignment with SDG4 through intentional design. First, I share the context, my positionality, and key stakeholders. Then, I share the problem space, my design approach and philosophy, and the key

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design decisions with the unforeseen challenges, insights and limitations infused in this section. Finally, a reflection on using GenAI for course creation is presented.

CONTEXT

The Open Education for a Better World (OE4BW) is an international online mentoring initiative that aims to harness the potential of open education to achieve social impact aligned with the UN Sustainable Development Goals (Urbančič et al., 2019). Developers are paired with volunteer mentors who are experienced in open education and are given six months to create concrete open educational materials. As a product, OERs directly support SDG4 on quality education. However, and more importantly, developers are free to create resources for any of the other SDGs after their proposals are accepted. Some of the criteria used in selecting developers include the proposal's contribution to learning and comprehension of open licensing.

Given the broad spectrum of OERs that are created for this program, coupled with the proliferation of online courses, from my perspective as a designer, global learners increasingly benefit from developing online self-regulated learning skills for success in flexible learning environments. I grounded my design in Self-Regulated Learning (SRL) because it aligned with my doctoral research and belief that learners must actively guide their own learning. Rather than treating SRL as a theory, I applied it to the structure and flow of the OER course *Mastering Academic Goal Setting: Strategies for Lifelong Learners*. I used prompts and templates to support learners in evaluating progress and adjusting strategies. In this way, SRL informed both the pedagogical design and the learner experience, translating research to a practical, open learning design.

With such an OER, I faced the challenge of designing for an unknown audience. While this will be discussed in a subsequent section, the target audience suggested was high school and college students, as well as professionals who intended to pursue some form of online learning. Another tension I faced was designing for learners in low-bandwidth areas to be more inclusive. Given the shifts towards using GenAI in course design and development (Luo et al., 2025) and considering the time constraints for completing the project, my mentor and I decided to ethically utilize GenAI tools to expedite the production of the proposed course. The mentorship served as a reflective anchor, helping me ensure that each design choice, from AI integration to accessibility, remained aligned with both ethical intent and learner empowerment. My choice to apply SRL and Liberatory Design principles drew from prior reading and dissertation work linking theory to practice.

MY POSITIONALITY

The positionality of our OER course team shaped every stage of the design process, influencing both the depth of knowledge and the values embedded within the course. I served as the instructional designer and educational researcher, drawing on my doctoral work in online academic self-regulated learning. My mentor, a professor of psychology with expertise in academic success and open learning initiatives, provided critical guidance throughout the project. We are both international, multilingual professionals who understand the complexities of academic achievement from research and lived experience. Our shared perspective informed our emphasis on accessibility, equity, and cultural responsiveness in the final design.

Finally, I used ChatGPT-4.5 model (hereafter referred to as ChatGPT) as the AI assistant used throughout, to play the role of a non-human partner in the process by iteratively suggesting content, draft revisions, and providing an additional perspective on accessibility based on the developer's detailed prompt requests. I selected ChatGPT for early ideation and drafting because it was the tool I was most familiar with at the time. Claude 4 supported the cross-verification of brainstormed concepts. I returned to ChatGPT for tone refinement, particularly when I needed phrasings that were learner-affirming. MufAI was chosen to produce inclusive narration, so that learners can engage with the course in multimodal ways that best suit their needs. Across all tools, GenAI did not replace human creativity or decision-making but served to accelerate ideation, generate illustrative examples, and scaffold instructional components.

DESIGN APPROACH

I used a liberatory design approach (Anaissie, 2021) to develop this OER course. The liberatory design is a blend of design thinking with equity-centered, justice-oriented practice. The framework comprises mindsets and modes necessary to address equity in design. Nine liberatory modes translate a

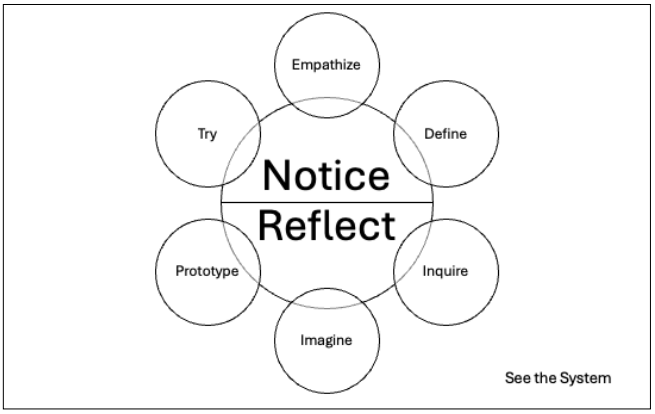

FIGURE 1. The Liberatory Design. Note. Adapted from the Liberatory Design framework by the National Equity Project (NEP) and the Stanford d.school (2021).

liberatory mindset into practice: (1) notice, (2) reflect, (3) see the system, (4) empathize, (5) define, (6) inquire, (7) imagine, (8) prototype, and (9) try. The latest model of liberatory design illustrates a flower at the center of which are the notice and reflect modes. The other modes are represented as the petals of the flower. Using a flower as an illustrative model emphasizes the non-linear approach to design. An adapted illustration of the Liberatory Design Model is provided in Figure 1.

The Notice Phase is at the center of the Liberatory Design and occurs before, during, and after each mode. During the Notice Phase, the design team practices self-awareness of any historical or power dynamics that may affect the design. Reflection is also at the center of the Liberatory design and occurs before, during, and after each mode. The Reflection Phase results in questioning cultural norms and unconscious biases that the design may perpetuate. Seeing the system enables a holistic view of the potential equity challenges inherent in the design context. The Empathize Phase works from a knowledge of the backgrounds, experiences, motivations, and challenges that the learners may have. In the Define Phase, designers may use data on the learners' needs and prioritize what can be addressed for a more focused approach. The Inquire Phase allows for input from stakeholders when the designer needs clarity and direction. The Imagine Phase may include tasks such as brainstorming to imagine the future state and scenarios. The Prototype Phase turns ideas into tangible and testable. The Try Phase involves gathering feedback from users of the design.

I selected Liberatory Design because its reflective and equity-oriented principles resonated with my approach to open education. Working in the OE4BW context, I recognized that learners' experiences are shaped by uneven access, language, and social context. The framework's Notice–Reflect–Empathize cycle guided my design thinking: noticing structural barriers, reflecting on my own positionality as a designer, and empathizing with diverse learners through the personas. This perspective led me to include features like offline downloadable toolkits and audio transcript options. In this way, Liberatory Design became a lens not just for inclusion, but for ensuring that every design decision reinforced learner agency and accessibility.

The liberatory design approach has successfully been implemented in the education technology field, e.g., a design case was used to illustrate how systemic challenges within a non-profit organization, such as persons with disabilities, LGBTQ+ community, marginalized communities, and people of color, can be empowered with the liberatory design approach (Pal, 2023).

DESIGN PHILOSOPHY

My design philosophy guided every stage of developing the OER goal-setting course. It rests on four core beliefs: (1) a commitment to supporting the United Nations Sustainable Development Goal 4 on Quality Education; (2) respect for evidence-based practices such as Self-Regulated Learning; (3) alignment with the Liberatory Design framework; and (4) a deep value for accessibility, empowerment, cultural relevance, reflective practice, open collaboration, and openness in both process and outcome.

As theoretical anchors, self-regulatory learning (SRL) and Liberatory Design (2021 model) inform my work. SRL was utilized as the pedagogical course content. As a scholar-practitioner, I utilized evidence-based practices to inform the design of the learning framework and its content. Similarly, I centered equity, reflection, and agency as I was guided by the Liberatory Design.

The core values that guided my design of the OER course were accessibility, empowerment, cultural relevance, reflective practice, open collaboration, and openness. Each value influenced a concrete design decision. My commitment to accessibility guided my choice of the free Canvas for Teachers platform, which supports access to the course and for developers to translate and remix the content. I prioritized empowerment by including toolkits and reflection prompts that allow learners to plan, monitor, and adjust their own goals. To ensure cultural relevance, I developed diverse learner personas that grounded examples in authentic global contexts. I emphasized reflective practice through journaling activities and prompts, encouraging near transfer of learning. Open collaboration emerged through iterative exchanges with my mentor and the integration of AI tools as design partners. Finally, my commitment to openness was realized through the adoption of a Creative Commons license, enabling others to freely adapt and reuse the course materials.

DESCRIPTION OF THE LEARNER-FACING ARTEFACT

The OER course Mastering Academic Goal Setting: Strategies for Lifelong Learners is a self-paced, microlearning course that helps learners set, monitor, and achieve academic and professional goals using research-based strategies. Drawing from the Self-Regulated Learning (SRL) model and Goal-Setting Theory, learners will create personalized, practical systems for meaningful goal-directed learning. This OER consisted of four modules, as illustrated by the Canvas Learning Management System Module page in Table 1. Module 1 is titled Foundations of Goal Setting, Module 2 is titled Designing Meaningful Goals, Module 3 is titled Planning and Progress, and Module 4 is titled Social Strategies and Capstone.

MODULE #	MODULE NAME
1	Foundations of Goal-Setting
2	Designing Meaningful Goals
3	Planning and Progress
4	Social Strategies and Capstone

TABLE 1. Overview of the course.

Each module had a consistent design comprising an overview page with modular objectives, a podcast with audio scripts, content pages with written and illustrative learning materials, embedded H5P interactivities, formative quizzes, reflection activities, downloads, resource toolkits, an application activity, and a wrap-up page with relevant quotations. All these resources and supporting images were drafted with GenAI tools and revised for tone, clarity, and quality with human intervention.

Each learner-facing artifact was intentionally designed to promote meaningful interaction and autonomy. I anticipated that learners would engage with the goal-setting templates as living documents and return to them after each module to reflect, revise, and track progress. Audio narration produced through Murf AI was added to improve accessibility and emotional connection, especially for learners in low-bandwidth or multilingual contexts. Visual icons and cues were chosen to help learners navigate intuitively through microlearning units, reducing cognitive load and supporting independent pacing. Together, these features were expected to encourage reflection, sustained motivation, and iterative goal monitoring, which are key behaviors associated with self-regulated learning.

Learners begin on a Home page that includes a welcome message, navigational instructions, and a brief overview of the course. A "Start Here" button is included, and there are written instructions and illustrations on how to navigate the course through the navigation pane. From the left-hand navigational menu, learners click the "Modules" tab, where the course is organized by topic. Each module includes a short orientation message and learning objectives, followed by a podcast contextual introduction with the audio script, followed by content and activities. The modules are structured into microlearning units, chunked into a series of content pages, and contain embedded activities. Downloadable templates and resources are placed at the end of each content presentation, followed by formative evaluation question items. Learners can progress linearly or choose to jump between units.

At multiple points, learners are invited to reflect using guided prompts, such as journaling about a personal goal or evaluating the emotional relevance of a SMARTER goal. Interactive H5Ps and checklists toolkit files provide formative feedback to the learner. Learners can choose to engage with audio or visual content depending on their preference. For example, a learner may either listen to the podcasts or read the transcript. Similarly, a learner may either download a fillable planner or download the printable planner version, as different file formats are provided.

DESIGN PRINCIPLES

Design Principle 1—Microlearning for Cognitive Ease

Microlearning refers to short, focused learning activities that help learners grasp one concept or skill at a time, typically designed to reduce cognitive load and promote immediate application (Bal et al., 2023; Marcelle & Brahim, 2023). I deliberately selected microlearning as a core design strategy, as the course was a non-credit, non-formal professional learning experience. Additionally, my intention was to develop skills in academic goal-setting that would be useful for an audience who may have had difficulties setting goals or were returning to the classroom through the online modality. In applying the *Notice, Reflect, and Empathize* modes of Liberatory Design, I recognized that my learners might be balancing multiple responsibilities, facing inconsistent internet access, or learning in short bursts of available time. Because of this, I decided that a microlearning format would be most appropriate. My goal was not to overwhelm them with extensive readings or lectures but to create short, focused activities that concentrated on the essential skills needed for goal-setting success. Given the course's self-paced nature, I selected microlearning as a foundational design strategy to reduce cognitive load and support consistent engagement.

I used GenAI tools to support the development of the microlearning assets and overall course design. Specifically, I worked with ChatGPT-4.5 and Claude 4 to outline the modular structure, determine learning objectives, sequence topics, and generate initial drafts of content and activities. These drafts serve as starting points that I later refined to ensure pedagogical accuracy, accessibility, and contextual fit. This process revealed both the efficiency and the limitations of AI-assisted design, especially when balancing creativity with accuracy.

In the first AI-generated outline, ChatGPT proposed six sequential modules: Introduction to Goal-Setting, The Science of Goal-Setting, Planning for Success, Tracking and Adjusting Goals, Staying Motivated and Overcoming Setbacks, and Capstone: Personal Goal-Setting Plan. While the structure was logically sound, it risked fragmenting the learning experience and increasing cognitive load. Through reflection and mentor consultation, I merged overlapping areas "Tracking and Adjusting Goals" with "Staying Motivated" and reframed "Introduction" and "Science" into a single foundational unit. The result was a more coherent four-module structure: (1) Foundations of Goal-Setting which introduces theory and

FIGURE 2. Sample of the structure of modules.

relevance; (2) Designing Meaningful Goals which shows the application the SMARTER framework and emotional connection; (3) Planning and Progress which covers time management and goal revision; and (4) Social Strategies and Capstone which emphasizes the role of peer support and reflection. This refinement aligned with microlearning principles and better supported self-paced engagement within limited learner timeframes.

I made decisions to determine which learning objectives were most essential and required the least intrinsic load, based on the complexity of the objectives being taught. This decision was critical, as the learner audience's age range may be broad, spanning from high school students to professionals. At the same time, I aimed to use evidence-based research to inform practice. Thus, the human eye was used to guide the GenAI tools to the appropriate directions, and research publications, but my aim was to use simple language and focused content.

From a learner-facing perspective, this resulted in a consistent course structure among the four modules. Each module comprises an outline, a podcast introduction, the lesson content, H5P activities, reflective activities, and a downloads and resources toolkit. An illustration of one full module showing the chunked lessons is shown in Figure 2. An illustration of a short H5P quiz activity, serving as a knowledge check, is shown in Figure 3. An example of a brief introductory podcast is shown in Figure 4. The standalone nature and brevity of each of these microlearning assets are beneficial to audiences with irregular internet access, mobile users, and those managing competing life roles.

My design intention was to create brief content pages, short podcasts, and short knowledge checks aligned with the general design principle of microlearning, aiming for sustained engagement and flexibility. The trade-off was balancing depth with brevity. I reflected that my learners were not educational psychologists but rather learners who will be applying the principles for their current and future learning experiences. Thus, my focus shifted to coherence across modules and guiding learners to make connections between tasks using reflected cues and scaffolded goal-setting prompts. Through constant reflection and revision of GenAI outputs, the final microlearning outputs were developed.

Design Principle 2—Learner-Centered Design via Personas

I aimed to make this OER course practical and focused on the needs of learners by bridging the gap between goal-setting theory and academic applications. I did not want this course to be only about content. In the first iteration of content development, I used multiple GenAI tools to generate lesson drafts. Claude produced clear, but generic content about revising goals, focusing on progress, and circumstantial changes. While accurate, it lacked empathy and contextual grounding for the learners I had envisioned. Also, it read more like an academic handout than a microlearning narrative. For example, the initial text simply listed "Ahead of schedule: Goals may need to be more challenging" and behind schedule: "Goals may need adjustment for feasibility."

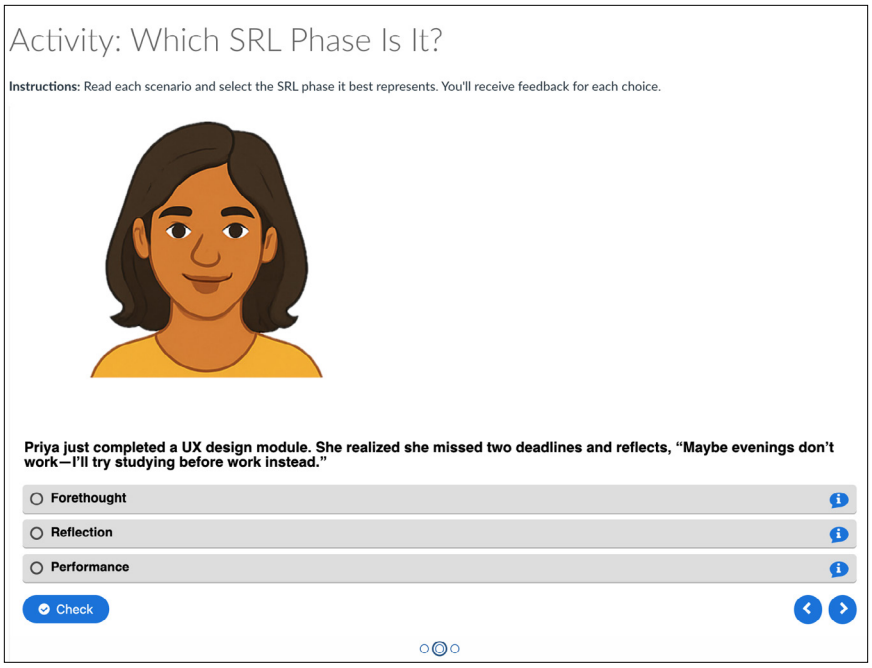

FIGURE 3. Illustration of a short H5P interactive quiz.

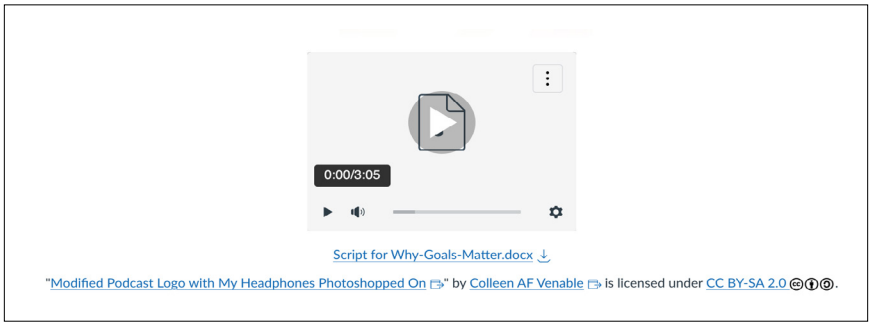

FIGURE 4. An example of a brief introductory podcast.

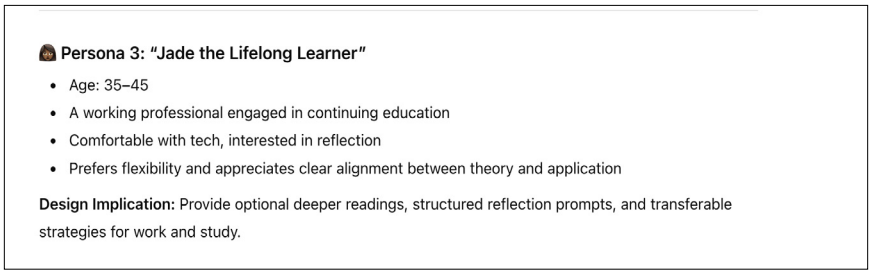

FIGURE 5. Early Generated AI Persona. "Jade the Lifelong Learner."

I initiated the persona creation process by prompting ChatGPT to generate learner profiles based on OE4BW audiences and then to suggest design implications for each persona. Drawing on the personas that I later developed, particularly Priya, a working professional balancing family and coursework, I revised the content with ChatGPT to speak to real-life constraints e.g., "Priya works full-time in tech support while taking an online UX course. She often feels mentally drained after work. To stay consistent, she creates this plan: If I feel too tired after my shift, then I'll switch to a lighter task like watching a UX tutorial instead of reading a dense article." This adaptation grounded the abstract principle in a lived reality to show learners how to apply what they are learning. It also reflected my broader design philosophy of turning AI-generated content into emotionally resonant, human-centered learning.

To make the content meaningful to users, I needed to tailor the content to the learners. However, in an OER course like this, it was challenging to determine the exact audience. The OE4BW program supports global participation with a strong emphasis on equity and inclusion, often drawing developers from regions with limited access to traditional educational resources. Thus, in the absence of direct contact with learners, I used fictionalized learner personas to anchor design choices informed by themes such as diversity, empathy, and accessibility. The design choices were aimed at considering the real-world lived experiences, goals, motivations, and challenges of potential learners.

Based on the perceived issues that learners face, I created three learning personas for Aisha, Miguel, and Priya in partnership with AI. The personas evolved through several iterations as AI-generated drafts were refined to include richer cultural, motivational, and contextual detail. Early outputs were concise but generic. For instance, the persona "Jade the Lifelong Learner" (see Figure 5) was an early GenAI iteration that later evolved into "Priya," a more grounded representation of the same learner archetype. While the AI captured broad traits such as technological confidence and reflective motivation, I localized these into a realistic narrative of an early-career professional in India balancing work, study, and limited energy.

The final iterations of personas used in the course include Aisha, who is a 16-year-old from Nairobi, Kenya. Her background is that of a high-achieving high school student who is aiming for a STEM scholarship. Her goal is to develop better self-discipline and time management. Aisha's challenges include limited adult guidance and spotty data access. Aisha's learning preferences are for short modules

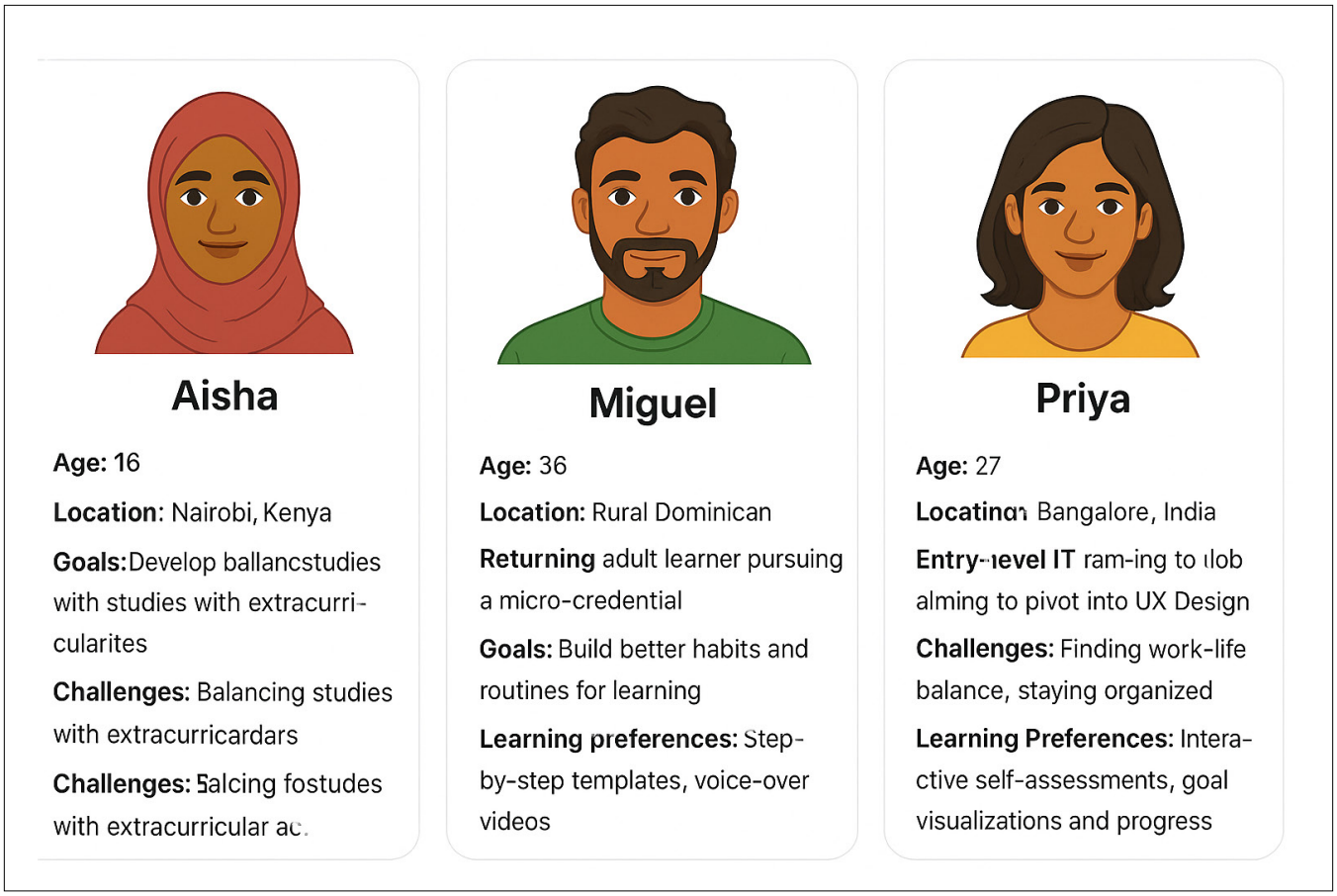

FIGURE 6. Learner persona card created with ChatGPT.

with visuals and offline reflections. Miguel is a 36-year-old male from the rural Dominican Republic. Miguel is an adult learner returning to the classroom to pursue micro-credentials. Miguel's goals are to build better habits and routines for learning. His challenges include an irregular learning schedule and low confidence in academic writing. His learning preference is for asynchronous materials, voice-over videos, and step-by-step templates. Finally, Priya is a 27-year-old from Bangalore, India, who has an entry-level IT job but aims to pivot into user experience design. Priya's goals are to set meaningful, trackable goals to juggle work and online learning. Her challenges include overcommitting due to a lack of clarity about her long-term path. Priya's learning preferences include interactive self-assessment, goal visualizations, and progress dashboards. An illustration of the personas used is shown in Figure 6.

The personas created were both designer-facing and learner-facing. My designer's perspective influenced the tone of the writing, the media used, and the range of activities. The AI-generated personas served as empathy anchors throughout the design process. Aisha, Miguel, and Priya helped me anticipate different learner needs, e.g., limited bandwidth, irregular schedules, and motivation lapses. I was guided by these personas needs to make design choices such as pacing, multimodal delivery, and reflective activities. To balance creativity and control, I used an iterative human-in-the-loop workflow: prompting GenAI for drafts, critically reviewing each for accuracy and inclusivity, and manually revising for context and cultural alignment. This process allowed me to benefit from GenAI's efficiency while ensuring that empathy and ethical responsibility remained central to the final learner-facing materials. Aisha, Miguel, and Priya were woven throughout as content examples, multiple-choice assessments, and scenario-based learning activities for learners to empathize with and perhaps personally relate to in the course. For example, Aisha's internet dilemma led to designing solutions for low-bandwidth dilemmas, such as including transcripts for podcasts. Miguel's irregular access and low confidence prompted the inclusion of worksheets and toolkits as scaffolded examples for download. Throughout the process, human oversight was involved, and I made adjustments for tone and cultural relevance. A non-example occurred when ChatGPT produced an illustration for collaborative goal setting in Module 3, but neglected to include Aisha's headwear, as illustrated in Figure 7. At this point, I re-prompted ChatGPT and reminded it of the cultural sensitivity of the hijab. This revision not only corrected representational bias but also reinforced the course's value of cultural sensitivity, ensuring that learners from diverse

FIGURE 7. Illustration of personas combined with cultural faux pas.

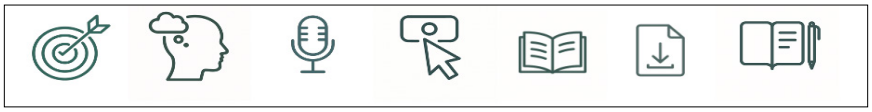

FIGURE 8. GenAI generated icons output.

Spelling + Clarity Fixes

Original	Correction
"High-achving"	High-achieving
"alming"	aiming
"hababits"	habits
"Irreguiar learnning"	Irregular learning
"voice-oved videos"	voice-over videos
"offline-frendly mod"	offline-friendly modules
"Sett"	Set
"juggle owork"	juggle work

FIGURE 9. GenAI output after addressing typographical errors.

contexts could see themselves reflected respectfully in the learning materials.

Design Principle 3—Multimedia Design for Learning

I used multimedia in the course development process, not merely for decorations but rather to enhance understanding, evoke empathy, maintain engagement, and offer learners multiple paths for connection with the content, particularly learners from a global audience, age range, academic preparation, and readiness to learn. Mayer's Multimedia Principles and UDL guidelines guided the OER course media design decisions. For Mayer's Multimedia Principles, mainly coherence, redundancy, and signaling principles were used. For UDL guidelines, the tenets of multiple means of representation and multiple means of engagement were dominant. GenAI tools supported the creation of the visual and auditory elements to meet these research-based design guidelines.

My application of the signaling principle manifested through icons, banners, and headers used in the design of the course. First GenAI, specifically ChatGPT, aided in creating a color palette and then provided recommendations on how to use the colors by modules based on the psychology of color and the module's content. The learning facing result was a suite of color-coded banners for each module. Following this, I prompted ChatGPT to create a series of icons to represent learning objectives, activities, interactivity, readings, downloads, and reflections. The GenAI tool created a descriptive choice for each icon type and then rendered them based on my selection. The output is shown in Figure 8. While the placement of these banners, headings, and icons within the LMS was a human activity rather than agentic, partnering with GenAI aided in quickly making decisions, particularly in this open context where the developer was not bound by institutionally created identity and branded guidelines.

I adhered to the contiguity principle by placing visuals next to related text. The visuals were created with DALL-E 3 in ChatGPT. The benefits of using GenAI for image creation for me, as the developer, were speeding up the production time and not being dependent on a multimedia developer for illustrations. At times, the GenAI tool made different illustration outputs that were not aligned with the personas created earlier in the chat window. Also, whenever words were to be combined with the visuals, there were numerous typographical errors (see Figure 9).

Despite these issues, the benefits of partnering with GenAI outweigh the disadvantages in creating illustrations. The problems were highlighted to GenAI, and at times, the

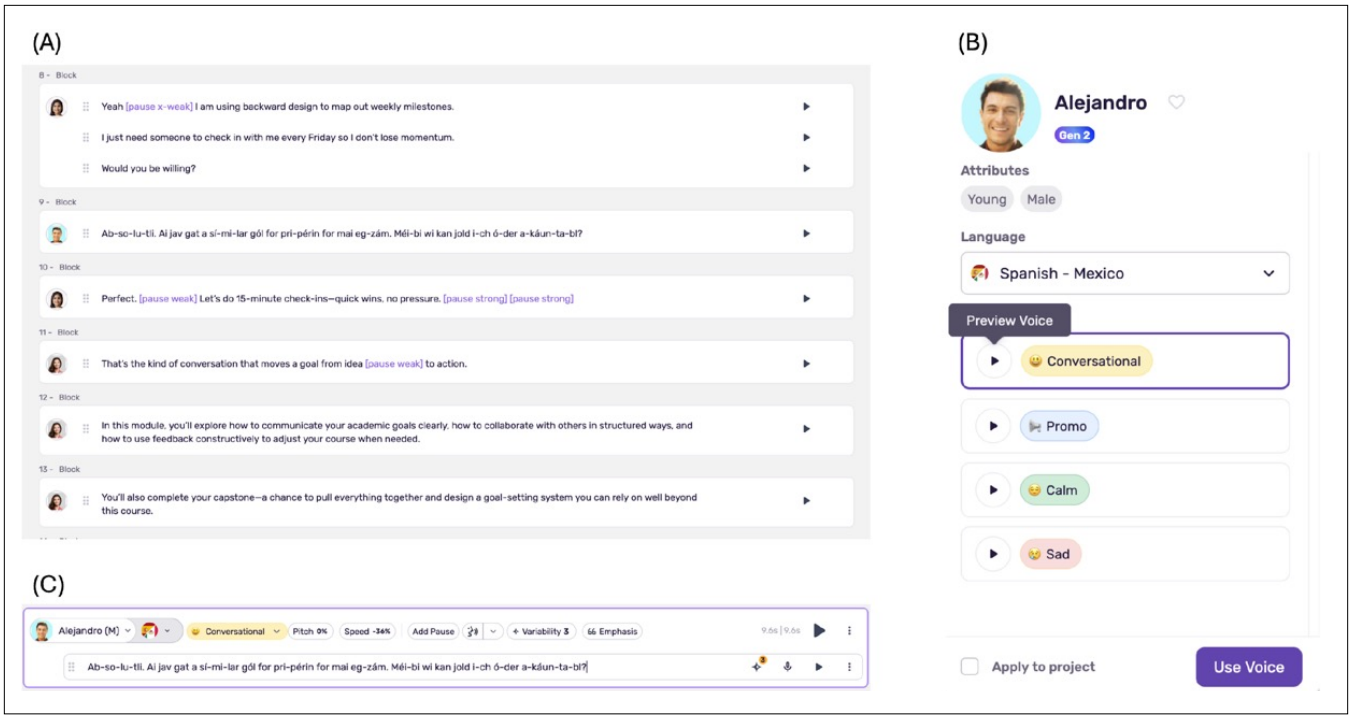

FIGURE 10. Composite screenshots illustrating the Murf AI audio-design workflow. (A) Conversation script prepared for narration; (B) speaker settings showing selected voice parameters; (C) phonetic modification used to achieve accurate pronunciation of text.

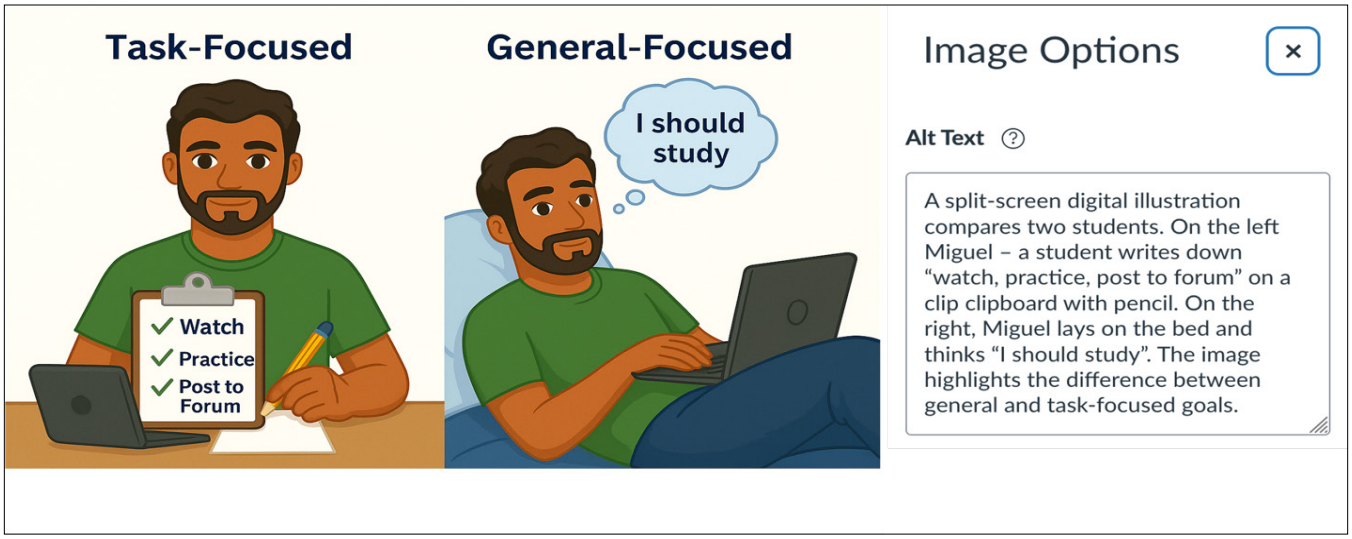

FIGURE 11. Illustration of comparative image created and corresponding Alt text from GenAI in Canvas LM.

human-partnership required cropping or editing the image in a secondary tool.

I used the modality principle as part of the design decisions in the course. Rather than use heavy text, I used short two to four-minute podcasts as introductions for each module. These podcasts either used a consistent voice or sometimes the voices of the personas are interjected for context. Whilst the podcast served to engage and motivate learners, aligned with the UDL tenet of engagement, it also broke up the monotony of an otherwise text-based course. The role of GenAI in the podcast was first the creation of the script based on content written for each module, with the human prompt limiting the length of the podcast with ChatGPT. Following this, I converted the text to audio with Murf AI Gen 2 model (hereafter referred to as Murf AI). Murf AI allowed the selection of voices by gender, mother tongue of the speaker, style and level of variability (see Figure 10). This tool was beneficial as the learner-facing outcome was podcasts that are enunciated, human-like, and at a suitable speed for a global audience. This tool has eliminated my need for voice-over artists, quality audio-recording equipment, and

a suitable recording environment for the developer. Cultural contexts were expressed in sound using a voice that matched a Latin American Spanish cadence for Miguel's persona, as he was from the Dominican Republic, and for Priya, who was from India.

For interactivity in the course, I created accessible H5Ps that incorporated multimedia. I integrated images from the personas of Aisha, Miguel, and Priya in the H5Ps to build empathy as the personas applied goal-setting in their contexts. The H5Ps were a combination of presentation type, multiple-choice questions, and branching scenarios. The benefits of using GenAI with the H5Ps include providing detailed feedback and reasoning when a user selects the incorrect answer, as well as providing screen tips. The practice of anticipating, comprehending, and explaining when an incorrect choice is selected requires experience and time demands from a subject matter expert. Thus, using GenAI with human oversight significantly improves the feedback loop in content creation.

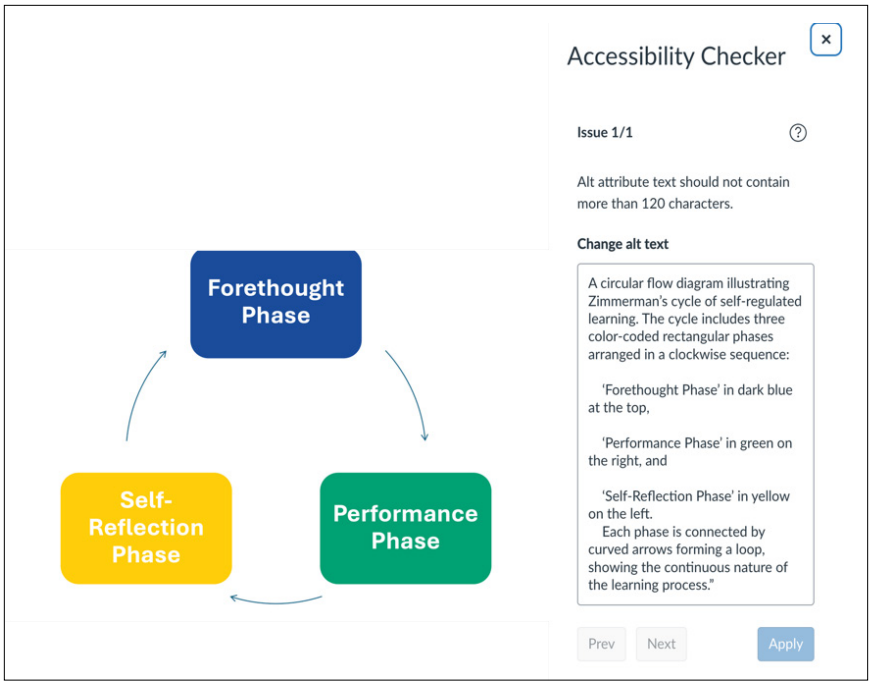

FIGURE 12. Example of Alt text details output from GenAI placed into the Canvas LMS.

Design Principle 4—Accessibility as a Foundational Design Commitment

Functioning as a developer for this global OER course, I reflected on the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), which has non-discrimination, full and effective participation and inclusion in society as the principle. However, despite using global frameworks, I may have been unintentionally influenced by country-specific laws and guidelines from training and experiences in the Global North. Accessibility, hence, was neither framed as a compliance requirement nor as an afterthought. Instead, accessibility was a core design commitment to ensure that learners, regardless of ability, device or bandwidth, could meaningfully engage with the course.

The course used a combination of representational images, process-oriented images, and comparative images. The representational images and comparative images were created by DALL-E 3 integration in ChatGPT. An additional benefit was the ability to prompt the GenAI tool to create Alt text to match the images created, as shown in Figure 11 and Figure 12. An iconography suite was consistently used for signaling to learners in the course, and these also benefited from GenAI Alt tag descriptions. The use of Alt tags ensured screen reader compatibility for users. The Alt tags produced were sometimes too wordy or inaccurate, but these outputs served as a guide for the human partner to alter for accuracy.

Podcasts were used at the start of each module. ChatGPT generated the podcast script, and the narrations were done through Murf AI. The accessibility design decision was manifested through the inclusion of the script on the same page as the podcasts in MS Word format. My belief was that besides learners with disabilities, learners with low bandwidth, or those having difficulties understanding the accents of the podcast speakers, can easily use the script file independently, simultaneously, or as an input file for translations.

All documents and toolkits were uploaded in both PDF and MS Word formats for learners to download and access at their convenience. I made this decision for offline engagement with the course material as the course was asynchronous, and because of the unpredictability of learners' connectivity based on the learner personas created.

Accessible interactivities were purposefully selected for learners. In the initial content draft of the course, GenAI had recommended some drag-and-drop H5P activities to enhance interactivity. However, after reflecting on the accessibility limitations and consulting ChatGPT on the accessibility of different H5P activities, I decided to replace them with simpler multiple- choice and checklist interactions. This decision prioritized equitable access over interactivity. This human-partnership with AI promoted the quality check for accessibility.

From a learner-facing perspective with an accessibility focus, while partnering with AI tools, learners experience seamless navigation on mobile devices, audio with text support, visuals that are consistent with the personas, scenarios and have accompanying Alt tags. Additionally, although the

course is designed to be asynchronous, learners can engage offline or with low bandwidth. The personas created during the empathizing mode of the Liberatory Design Framework influenced these design decisions.

Planning for accessibility reflected both my mentor's and my own values, as well as the principles of Liberatory Design. As an able-bodied individual, creating Alt text requires a lot of effort to make explicit what I see. However, when partnering with GenAI, the process for writing Alt text was less demanding, even when the AI content had to be retrofitted or adjusted for accuracy. In general, designing for accessibility in this design case surfaces important tensions between speed and care, but ultimately results in more thoughtful, learner-friendly resources.

Design Principle 5—Copyright and Copyleft

As an OE4BW project, I developed this course with a strong commitment to open licensing and ethical content sharing. This was particularly important given the integration of GenAI-generated text and media, which introduced new questions around attribution and re-use. Thus, Open Educational Practices (OEP) and ethical reuse formed part of the design decisions from the outset. Moreover, at several points during the development of the content and media assets, there were ethical tensions, some of which remain unresolved.

At the copyright end of the spectrum, the issues related to the use of research publications and skepticism about the data on which the GenAI tools received their training. The Academic Goal Setting course content was based on some theories and models, such as Zimmerman's self-regulated learning cycle (Zimmerman, 2015) and the Multiple Goals Regulation Framework (Kim et al., 2023). These researchers have made visual models that illustrate the concepts and processes. However, these visual models are under copyright in academic journals rather than open access. Whilst obtaining permission from the publisher may have been a route, the issue of fair use may have become tricky with the open license intended for the course. The solutions in the design artefacts are recreated diagrams in my language and style, with phrases such as adapted from and inspired from. Additionally, the articles were linked as footnote references for optional reading if the learners had library access. However, these links were more references rather than a requirement, as the developer also empathizes with the library resource limitations in under-resourced contexts. Also, summaries that did not involve the diagrams were used for some frameworks by prompting the GenAI tool for simple, user-friendly overviews.

The issue of what data the GenAI tool was trained on remains a tension. This ethical tension surfaced early in the content creation draft cycle. While the outputs felt original, at points, manual verifications were performed by copying and pasting segments of text into the Google search engine for near verbatim matches from websites or published works. However, this action may not have been foolproof. In the second iteration of the content drafting, I incorporated the personas of Aisha, Miguel, and Priya into the prompts to rework the outputs. This decision led to content that was more context-sensitive and reduced the likelihood of the GenAI tools replicating copyrighted phrases. The specificity of the personas required outputs to be grounded in authentic

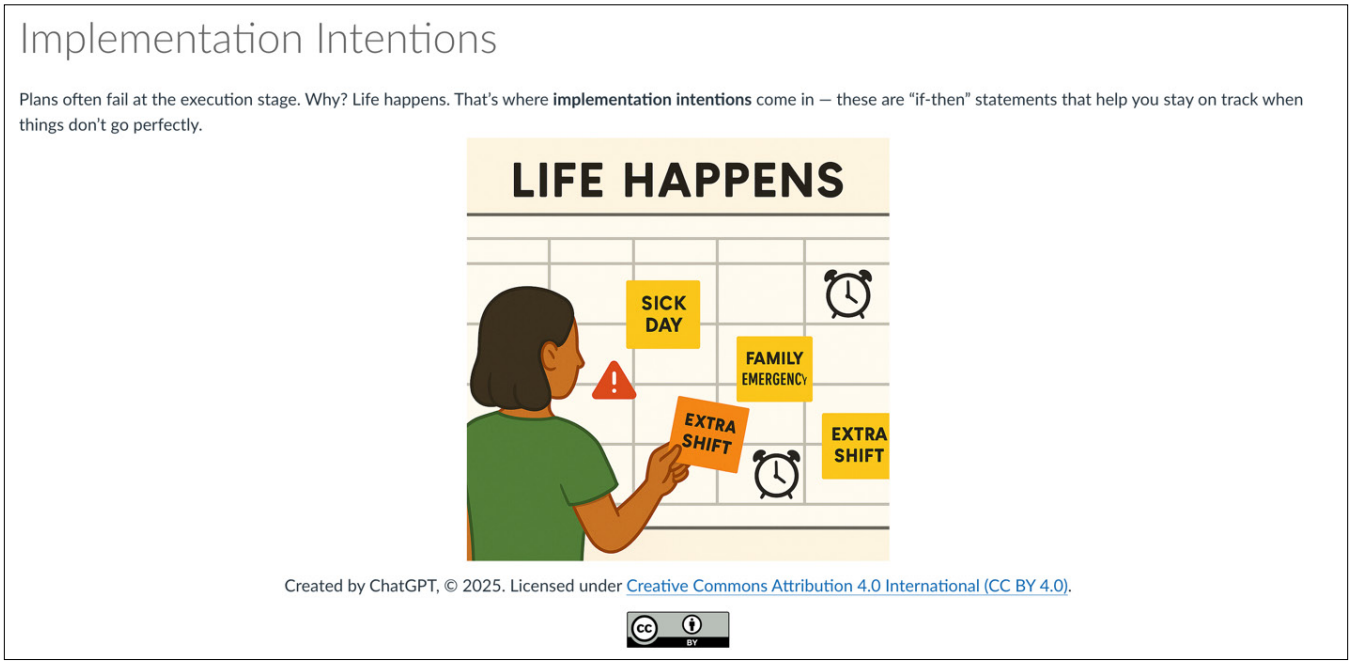

FIGURE 13. Attributions to GenAI tool and the application of Creative Commons licensing.

learner scenarios, which were then revised and finalized as part of the human-in-the-loop interaction.

While GenAI-generated text was revised extensively, visual elements created with the image generation tools required special care. At this moment, during development and research, there are tensions on what counts as human authorship and whether a GenAI image can be copyrighted. I grappled with whether the output was truly mine based on the extent of my involvement in prompting. However, I did not consider my prompts to be highly complex; thus, I deferred my attribution to the tool more for transparency, particularly in a context where the secondary aim was the demonstration of the power of Creative Commons licensing. To transparently document GenAI use, I created attribution statements that point to the tool, as shown in Figure 13.

From a learner-facing and developer-facing perspective, I wanted to be transparent about the reusability outcomes. As such, licensing information was used continuously throughout the course, e.g., on the course home page, which was clearly labelled with a CC BY icon and narrative statement. Similarly, when Creative Commons images were used, clear attribution and licensing were displayed, and all downloadable templates and sheets were labelled with CC BY-SA. All interactive H5Ps created are labelled with the Creative Commons license and are downloadable. These learner-facing attribution and licensing signals to learners that they were free to reuse and modify materials for their own learning or teaching contexts.

REFLECTIONS AND INSIGHTS

This section shares my insights gained from navigating the intersection of OER course design, GenAI use, and human judgment. The reflections focus on the practical, ethical, and creative tensions I encountered, and the insights that emerged from navigating them.

The role of the GenAI tools in the design process was a partnership that augmented what could have been done with humans. GenAI sped up the process of creating course maps and writing draft content, which would have taken subject matter experts several weeks of collaboration and fine-tuning. While there was a marked difference in the level of detail among different GenAI applications, human judgment was required to determine the depth of knowledge for the specific context of the OER course. The process of creating illustrations was also sped up, as I was not dependent on a graphic artist. However, at the point of writing this article's reflection, ChatGPT tended to produce garbled text when superimposed on images, which was frustrating initially, but was managed. Therefore, while the entire process was sped up using GenAI tools, human oversight for quality assurance, experience, and subject matter expertise was required.

Partnering with GenAI tools also created some challenges from a cultural and context relevance perspective. During the second cycle of drafting content, I partnered with AI to introduce relevant personas. Aisha was depicted as an Islamic woman with a hijab from Nairobi, Kenya. However, later, when making a scenario, Aisha was shown without her headdress. This inconsistency may be in the current model used for image generation, but it also underscores the importance of human oversight in all GenAI outputs. A challenge was encountered when creating an AI-generated audio file of Miguel narrating. Whilst Miguel was a Spanish-speaking Latino, and the Murf AI was inclusive with a Mexican-speaking artist, some minor issues arose. While the speed had to be adjusted to match the pace of English speakers, the English input had to be phonetically changed into Spanish to get the correct pronunciation. In sum, my role was more human-in- the-loop to review for accuracy and audio quality. Human expertise was needed for the final design over the AI-generated drafts.

Tensions surfaced concerning designing for global unknown audiences, the type of visuals, and the personas to be used. Then, questions about what media forms will be inclusive for low-resource environments. While I opted to use a text-based course primarily due to bandwidth limitations, my vision is for developers to easily translate the OER course into multiple languages and for instructors to remix for context-aware needs. At the same time, in the current first iteration of the course, I used empathy principles through personas to understand learners from a design perspective. Then, I mirrored these personas for learners to relate to the issues related to the course topic of goal setting.

At the time of writing this reflection, this course was only evaluated by the OE4BW mentor, who served as a subject matter expert and provided feedback and opportunities for improvement. By incorporating embedded formative evaluations in the course and gathering input from a pilot cohort of graduate students, user-specific insights will be gained, and modifications will be made. This will shift the focus from design intentions to design outcomes for a follow-up project and may surface other design failures and limitations.

This project has reshaped my view on GenAI in OER course design. I now see AI as a partner that can lead content generation, where many tools and their affordances can be used for rapid idea generation. However, when paired with human expertise, it can expand design possibilities while respecting ethical and accessibility constraints. While GenAI may have been a catalyst for efficiency, it was the human in the loop process that ultimately ensured that the course remained learner-centered, ethically sound, and adaptable for a global audience.

CONCLUSION

By critically adapting AI outputs for cultural relevance, accessibility, and ethical integrity, the final course reflects both technological efficiency and instructional design expertise. The results are a learner-centered resource ready for use and process that can inform future GenAI-assisted designs, albeit with the rapid changes and improvements with AI tools over time.

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