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Coleg y Cymoedd Tackles the AI Learning Challenge with a Phased Institution-Wide Digital Transformation Strategy

Overview

Coleg y Cymoedd, a Further Education college serving communities across the South Wales valleys, partnered with LearnWise AI to address what its Head of Digital Transformation described as "the AI and learning wicked problem": learners were already using uncontrolled consumer AI tools outside the institution, receiving generic or hallucinated answers with no curriculum alignment, no faculty visibility, and no governance framework in place. Over three years, the college built a phased, strategy-led response that placed AI at the centre of its digital transformation program.

Region: United Kingdom - South Wales
Student population: 10000+
LMS: Microsoft Teams & Moodle,
Other platforms: Microsoft Copilot, SharePoint
LearnWise product(s) implemented: AI Campus Support (ARNY); AI Tutor (Sidekick); LearnWise Staff Assistant (in planning)

Context & Challenge

Coleg y Cymoedd serves over 10,000 learners annually across over 15 vocational curriculum areas and four campuses, located in communities with high indices of deprivation across the former mining valleys of South Wales. The college had identified digital transformation as a strategic priority, but the rapid proliferation of consumer AI tools created an urgent, specific challenge that could not be addressed through policy statements alone.

The core problem was multifaceted:

- Students had access to Microsoft Copilot, but were also using AI chat tools without institutional guardrails, often receiving incorrect or hallucinated information with no connection to their course content.

- Generic AI tools were designed to give instant answers, not to support learning, bypassing the productive friction and resilience-building that effective education requires.

- Tutors had zero visibility into what learners were being told by external AI tools, with no alignment between AI-generated responses and curriculum materials, assessment frameworks, or institutional policies.

- AI adoption across the college was siloed, with individual staff members experimenting independently with tools like Microsoft Copilot, leading to fragmented use and inconsistent learner experiences.

- Legacy systems across 15+ vocational areas and four campuses created significant complexity for any coordinated digital change programme.

The college needed a solution that could bring AI into the learning environment in a controlled, curriculum-aligned way, giving tutors visibility, maintaining institutional governance, and complementing rather than replacing the role of the teacher.

Solution

Coleg y Cymoedd began its AI journey in 2023–2024 with the development of an AI strategy, staff awareness training, and the launch of an AI-assisted learner recruitment project. The following year, the college expanded its deployment to include staff and learner Microsoft Copilot training and, most significantly, implemented the LearnWise AI Student Tutor they branded as Sidekick, integrated directly into Microsoft Teams (2024-25 school year).

Sidekick was designed specifically to address the AI and learning wicked problem: rather than providing direct answers, it uses AI behaviours that guide learners toward understanding,
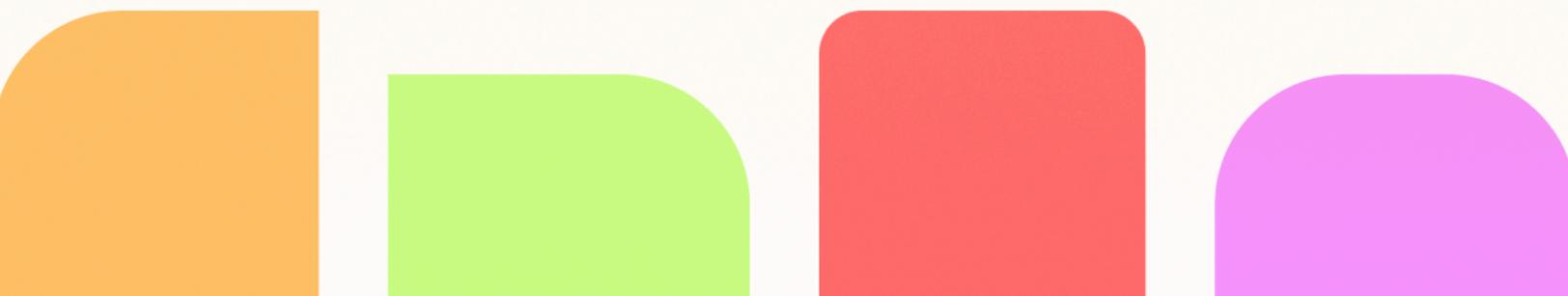
redirecting queries toward course resources and deeper thinking. Tutors retain full visibility over learner interactions through the Teams environment, and the knowledge available to each learner is controlled course by course.

In 2025–2026, the college launched ARNY 2.0 with expanded capabilities, initiated an AI data migration project, and began planning the next phase of deployment - including a LearnWise staff assistant with AI feedback and grading capabilities, Welsh language voice functionality across all assistants, and integration with the college's learner information system (Tribal EBS).

Key Components of the Implementation

- **AI Recruitment Assistant :** A LearnWise-powered assistant providing prospective learners with accurate, accessible information about courses and enrolment, available 24/7 and capable of handling queries across multiple languages.

- **Sidekick - AI Student Tutor:** Integrated directly into Microsoft Teams to deliver curriculum-aligned tutoring support inside the platform learners use daily. Sidekick is designed to enable learning rather than shortcut it, guiding learners toward understanding and giving tutors insight into how learners engage with content outside of contact hours.

- **Faculty Control and Visibility:** Tutors retain full oversight of the knowledge assigned to Sidekick in each course team, meaning the AI can only draw on materials the tutor has approved. Learner interaction patterns are visible through the dashboard, enabling evidence-based course design and early intervention.

- **Phased Curriculum Rollout:** Adoption followed a structured three-step model - foundational Teams use, Sidekick integration for learning and revision, and advanced AI assessment and feedback - with curriculum champions embedded in each area to drive adoption.

- **Four-Pillar AI Strategy:** The college's AI strategy was built around governance, staff development, learner engagement, and innovation, ensuring that technology deployment remained anchored in institutional responsibility and genuine educational value.

Use Cases

LearnWise tools have supported Coleg y Cymoedd across several areas:

- Prospective learner enquiries handled by ARNY, reducing pressure on recruitment and admissions teams while providing consistent, accurate information at any time of day.

- Curriculum-aligned tutoring through the AI Student Tutor (Sidekick), enabling learners to explore course content, prepare for assessments, and revise independently within their Microsoft Teams course environment.

- Staff productivity and professional development support, with a LearnWise staff assistant in planning to help employees access P&C policies, CPD frameworks, and institutional guidance.

- Learner readiness and wellbeing, with future plans to integrate wellbeing support through ARNY and connect the platform to the college's learner information system.

"The main issue is that AI, the way general AI tools are built, they're not really built for learning. Learning needs friction, it needs a bit of frustration at times, it needs a little bit of resilience when we're trying to grapple with new concepts. Generic AI tools don't really give you that." — **Tiberiu Dancovici, Head of Digital Transformation, Coleg y Cymoedd**

Outcomes

Early results from the AI Student Tutor Sidekick deployment reflect strong engagement for a platform at pilot stage.

The college recorded 857 conversations with 273 unique users, generating 4,540 AI responses at a **100% resolution rate. Students averaged 3.1 conversations per user and 5.3 answers per conversation**. Interactions took place **across 7 languages** - reflecting both the diversity of the college's learner community and the accessibility advantage of an always-on AI assistant.
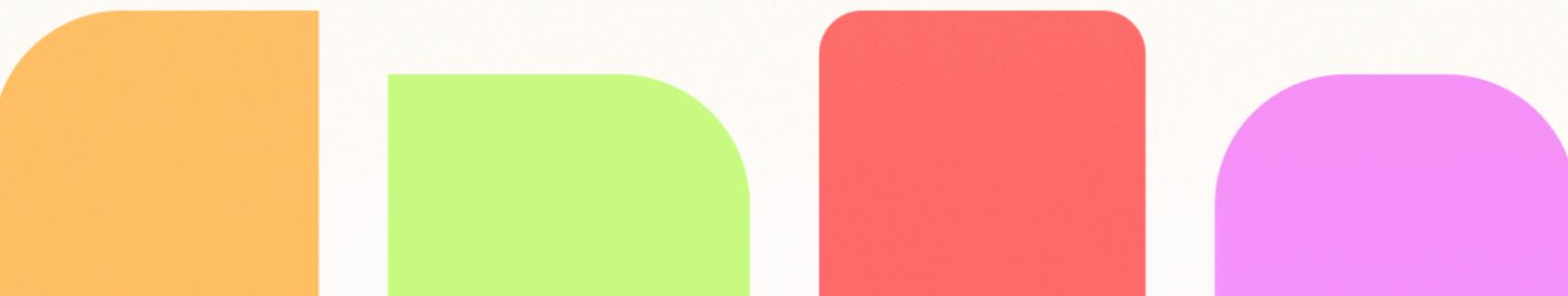
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Broader outcomes from the three-year LearnWise partnership include:

- **Controlled AI Environment:** Students now have access to a sanctioned, curriculum-aligned AI tool within their existing learning platform, significantly reducing reliance on uncontrolled external tools.

- **Faculty Empowerment:** Tutors have moved from having no visibility over learner AI use to being able to monitor interaction patterns, with course-level knowledge control that directly supports responsible and pedagogically sound AI integration.

- **Institutional Momentum:** Within one year of beginning its LearnWise partnership, the college had launched 2 assistants, completed 2 pilots, and planned 2 further projects by the end of the 2025/26 academic year.

- **Digital Transformation Catalyst:** The expanded capabilities of ARNY 2.0 have become a catalyst for digital transformation across all learner-facing departments, encouraging a joined-up approach to AI across the college's systems and services.

Strategic Value

Coleg y Cymoedd's journey offers a compelling model for Further Education colleges navigating AI adoption across complex, multi-campus environments with diverse vocational programmes. For institutions seeking to:

- Bring learner AI use inside the institution and align it with curriculum content and assessment frameworks,

- Give tutors meaningful visibility and control over how AI supports their learners,

- Build AI capability incrementally across a large number of curriculum areas without overwhelming staff,

- Use AI as a catalyst for broader digital transformation across learner-facing services.

The Coleg y Cymoedd deployment demonstrates that a phased, strategy-led approach -

starting with a clear institutional vision, building faculty confidence through training and curriculum champions, and expanding use cases iteratively - can achieve significant, sustainable change within a single academic year.