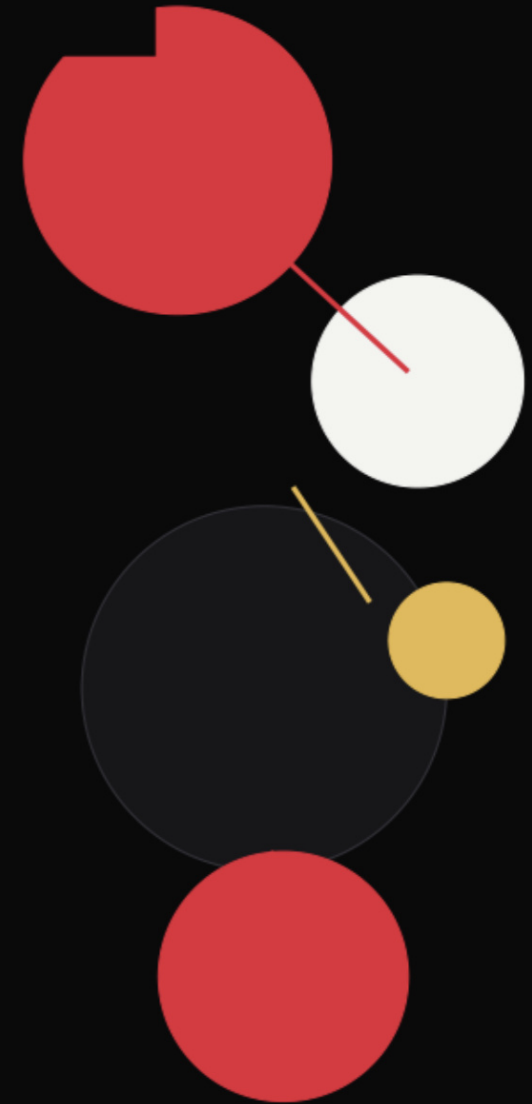


Making learning progress visible

This review sets out our research into how AI could give postgraduate learners one connected view of their progress, and records the findings and decisions that shaped our recommendation.

Team 7 · Priya Nair · Tomás Alvarez · Hannah Okafor · Wei Zhang · Daniel Mercer · Sofia Rinaldi

INOV0028 The Role of AI in Innovation · Teaching exemplar — fictional client, people and data



Our mission and the goal we set ourselves

AI INNOVATION GOAL

Our project aims to harness AI to **bring a postgraduate learner's feedback, assessment and reflection evidence together in one place on the Learning Journeys platform, linked into a learner-owned development map**, for programme teams at UK universities that use Learning Journeys, so that **students can answer “What am I getting better at — and what evidence shows it?”** without anyone reconstructing the story by hand.

AI proposes possible links. The learner and tutor decide what they mean. No grades, rankings or risk scores are produced.

42 → <15 min

Time for a learner to locate evidence and reconstruct one capability journey

Today's median, from observing 6 learners

1 in 5 → 3 in 5

Personal-tutor meetings that cite ≥ 2 artefacts from different modules

Baseline: 30 anonymised tutorial notes, 3 programmes

0

Automated grades, rankings or risk scores. A design red line, not a target

Set during ethics mapping; see slides 11 and 15

AI in higher education

AI is changing how universities support learning.

ADOPTION IS GROWING

AI is increasingly being used across higher education to improve learning and efficiency. Many universities are exploring generative AI tools.

UNIVERSITIES ARE INVESTING

Institutions see AI as a way to modernise teaching, support students and save time. Many are running pilots of AI tools.

STUDENTS ALREADY USE AI

Students are using AI tools for their studies. This creates both opportunities and challenges for universities.

60%+

of universities now use AI in some form

HOW UNIVERSITIES CAN RESPOND

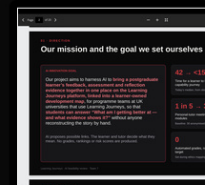
Teach students to check AI outputs, set clear boundaries for coursework, and design tasks that still require judgement and original thinking.

THE TRADE-OFF

Bans may reduce misuse but push it out of sight. Guided use builds checking skills, but needs staff time and clear rules.

Key players: Microsoft, Google, OpenAI and many EdTech start-ups.

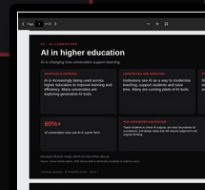
Source: -various industry reports-, 2025. (Source detail is intentionally incomplete for students to spot.)



Where could AI create value for Learning Journeys?

	CHEAPER	BETTER	NEW
Repetitive, low-value tasks	Pull feedback, marks and reflections from the VLE, marking tool and journals into one feed. Replaces manual copy-paste (est. 25 min per learner per term).	Tag each artefact to programme capabilities so evidence is searchable by skill, not module code.	Surface repeated feedback themes across modules, e.g. "argument structure" recurring in 3 of 4 units.
Skill bottlenecks	Draft reflection prompts from the learner's own evidence so tutors need not write bespoke ones for 40 tutees.	One-page evidence pack for tutors before each meeting, built from artefacts the learner chose to share.	Learner-controlled "capability stories" that can be shared with employers, each linked to its sources.
Navigating ambiguity	Flag conflicting feedback from different markers so the learner can query it.	Explain why a link was suggested: source excerpts, one-line reason and a confidence band.	Programme-level theme view without individual data (minimum cohort of 15).

Directions we will test: auto-collect (enabler) → cross-module theme links (core value) → explain-the-link (trust condition).

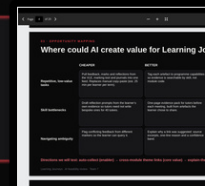


What must be true? Assumptions to investigate

These assumptions shaped our interview guide. Each one became an area to explore with users.

CATEGORY	WHAT WE ASSUME	WHAT WE NEED TO FIND OUT	WHO WE WILL ASK
Desirability	Learners will value a connected view of their evidence.	How do learners piece together evidence from different modules today, and how long does it take?	Learners: interviews and an observed reconstruction task.
Feasibility	Existing artefacts can be linked without rebuilding systems.	Where do feedback and marks sit, and what can be exported?	Digital learning manager and tutors.
Viability	A programme sees enough learning value to adopt it.	What would a programme lead need to see to sponsor a pilot, and what stops them?	Aisha and programme leads.
Trust	Visible provenance makes AI links acceptable.	What do users want to know before they believe a link suggested by AI?	Learners, tutors and Aisha.
Effectiveness	The tool improves reflection rather than producing another summary.	What do learners and tutors actually do with feedback and summaries now?	All groups, plus sampled tutorial notes.

Riskiest assumption: TRUST. If users do not believe the AI's connections, the product has no permission to exist, so every interview included questions on it.



Meet Aisha Rahman, CEO of Learning Journeys



AISHA RAHMAN · 41 · LONDON · CEO AND CO-FOUNDER

Learning Journeys Ltd: 11 UK university customers, c. 46,000 licensed learners. Source: 50-minute interview and a board paper shared by the client.

WHAT SUCCESS LOOKS LIKE

- A university pilots in one term without rebuilding its stack
- Learners grasp the value in minutes
- Evidence survives DPIA, procurement and scrutiny
- Renewals tied to measurable learning value

PAIN POINTS AND ROOT CAUSE

- Investor pressure to scale
- Reputation risk if AI overclaims
- A small team: every integration competes with the roadmap
- Root cause: the product records activity, not development

CURRENT SOLUTIONS AND LIMITS

- Reflection templates: completed late, rarely revisited
- Standard dashboard: reports usage to programme leads
- Manual capability tagging by staff: does not scale beyond one programme

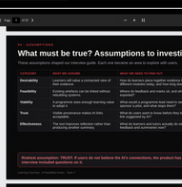
DECISION TRIGGERS: YES

- A programme lead will champion it
- Value shown in one pilot
- Can state exactly what the AI does and does not do

REASONS FOR NO

- AI claims that cannot be evidenced
- Features that add work for staff
- A pilot that cannot show learning value in one term

"Programme leads keep asking me for an at-risk flag. I don't want to build a surveillance product, but I can't ignore what buyers ask for."



Aisha's challenges for Learning Journeys

1 Customers cannot see learning development

SUB-ISSUE

The platform stores evidence but does not link it

SUPPORTING EVIDENCE

71% of 1,240 feedback items audited (3 programmes) were never linked to later work. [Platform data]

SUB-ISSUE

Reports show activity, not growth

SUPPORTING EVIDENCE

Dashboards count submissions and logins. Two customers built their own spreadsheets. [Aisha]

2 Renewals need proof of learning value

SUB-ISSUE

Progress conversations are episodic

SUPPORTING EVIDENCE

Median 2 tutor meetings a term; only 6 of 30 sampled notes cited another module. [Platform data]

SUB-ISSUE

Value is hard to show at review

SUPPORTING EVIDENCE

Renewal talks focus on usage, not learning outcomes. [Aisha; board paper]

3 Governance slows every launch

SUB-ISSUE

DPIA questions come first

SUPPORTING EVIDENCE

Programme leads raise DPIA before seeing a demo. [Aisha]

SUB-ISSUE

Procurement is slow

SUPPORTING EVIDENCE

2 pilots stalled for 5+ months at procurement; sales cycles run 9–14 months. [Sales log; board paper]

4 AI overclaiming is a reputation risk

SUB-ISSUE

Staff and learners fear surveillance

SUPPORTING EVIDENCE

Concern about being seen as a "surveillance product". [Aisha]

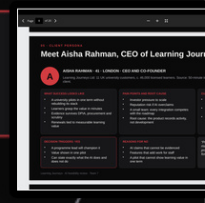
SUB-ISSUE

Another-platform fatigue

SUPPORTING EVIDENCE

Staff fatigue with new tools is a recurring reason pilots are declined. [Board paper]

FOCUS Challenge 1. It is the one a product can solve, it underpins renewals (challenge 2), and it points to the end user: learners who cannot connect their own evidence. Challenges 3 and 4 become design constraints (slides 11 and 15).



Meet James, lecturer



DR JAMES WHITFIELD · LECTURER

University lecturer · 38 · teaches postgraduate students

AGE

38

YEARS TEACHING

9

MODULES

3

STUDENTS

c. 120

OFFICE

Building C

GOALS

- Support students
- Save time
- Use technology well
- Keep up with research
- Have a good work-life balance

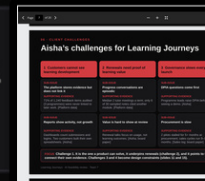
PAIN POINTS

- Too much marking
- Not enough time
- AI can be confusing
- Slow university IT
- Lots of emails

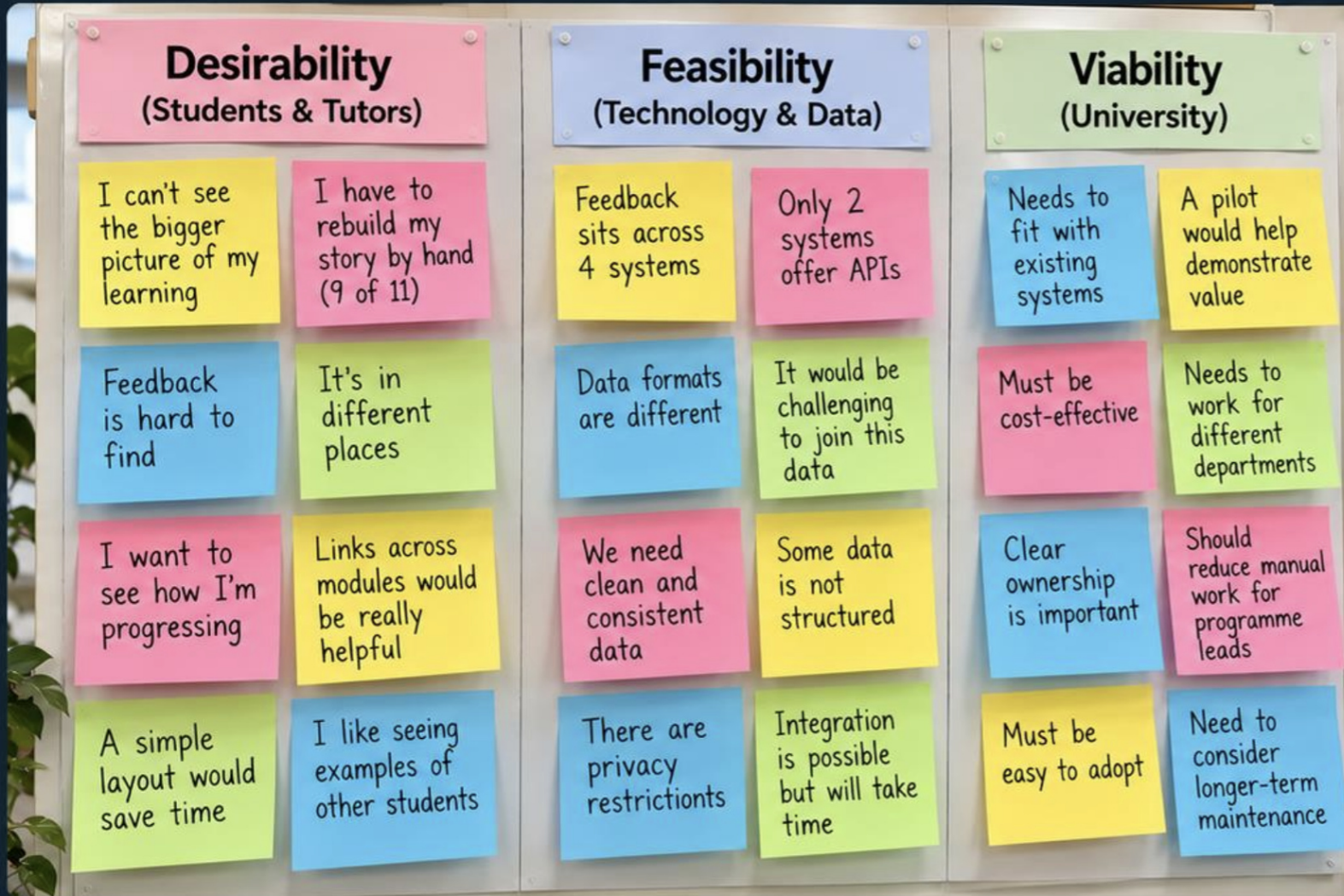
NEEDS

- Something simple
- Something useful
- Something students like
- Clear instructions
- Good support

ABOUT JAMES Lives 35 minutes from campus by train. Enjoys cycling, cooking and podcasts. Drinks a flat white. Uses Excel, Outlook and Teams every day. Attends two staff meetings a week.

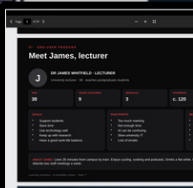


What we heard from users



How we analysed the data

- 1 Transcribed the interviews (12 students, 6 lecturers, 4 programme leads).
- 2 Grouped similar comments into themes (as shown).
- 3 Counted how many people mentioned each theme.
- 4 Mapped the themes to user needs and design requirements.



Now we can define the problem

Postgraduate learners at UK universities using Learning Journeys are trying to describe how their capabilities are developing across modules, but are hindered by feedback and artefacts sitting in four unconnected systems and being judged module by module, because the platform stores evidence but does not link it to programme capabilities. This leaves learners spending around 40 minutes rebuilding each reflection, tutors referencing cross-module patterns in 6 of 30 sampled meetings, and programmes able to show activity but not development.

IMPACT

- Reflection quality limited by recall, not insight
- Programmes cannot evidence value at review
- Industry estimates suggest around 70% of programmes cannot evidence capability growth

CONSTRAINTS (DETAIL ON SLIDE 11)

- UK GDPR, DPIA, Jisc Code of Practice
- No grading, ranking or risk scoring
- Human review of every AI link
- Must run inside existing sign-on

WHY THIS PROBLEM

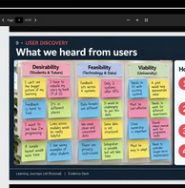
Evidence: repeated theme in 9 of 11 interviews

Market: adjacent tools solve fragments

AI fit: pattern-finding across text

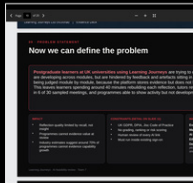
Ethical fit: linking avoids automated judgement

Decision: postgraduates, not all learners: one-year programmes give short evidence cycles, so one-term pilot is realistic



Constraints that changed the design

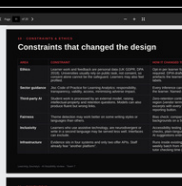
AREA	CONSTRAINT	HOW IT CHANGED THE PRODUCT
Ethics	Learner work and feedback are personal data (UK GDPR, DPA 2018). Universities usually rely on public task, not consent, so consent alone cannot be the safeguard. Learners may also feel profiled.	Opt-in per learner for the evidence map even where not legally required. DPIA drafted from the university DPO template. Only artefacts the learner selects enter the system; no scores or labels.
Sector guidance	Jisc Code of Practice for Learning Analytics: responsibility, transparency, validity, access, minimising adverse impact.	Every inference can be opened, questioned and corrected by the learner. Named data owner at the university.
Third-party AI	Student work is processed by an external model, raising intellectual-property and retention questions. Models can also produce fluent but wrong links.	Zero-retention contract term, no training on student work, UK region (vendor terms not yet negotiated: open risk). Source excerpts with every link; low-confidence links hidden; false-link reporting button.
Fairness	Theme detection may work better on some writing styles or languages than others.	Bias check: compare theme recall across three language backgrounds on a 50-item test set before pilot.
Inclusivity	Learners who use assistive technology, are neurodivergent or write in a second language may be served less well. Interfaces can exclude.	Accessibility testing against WCAG 2.2 AA, screen-reader checks, plain-language explanations, and the option to switch off AI suggestions entirely.
Infrastructure	Evidence sits in four systems and only two offer APIs. Staff already fear “another platform”.	Runs inside existing Learning Journeys and single sign-on; weekly batch from marks and feedback exports first. Measure tutor checking time (target ≤10 min per meeting).



From user need to design requirement to feature

NEED AND EVIDENCE	DESIGN REQUIREMENT	FEATURE IN CURRENT CONCEPT
See development between assignments (9 of 11 interviews)	Cross-module theme linking	Evidence map: themes plotted on a timeline across modules and programme capabilities
Know what evidence the AI used (3 of 3 tutors, 3 of 5 learners)	Provenance on every suggestion	Source panel: two excerpts, date, marker, one-line reason, confidence band
Keep control of my own story (4 of 5 learners)	Learner ownership	Accept, edit, reject or hide; private by default; tutor sees only what the learner shares
Not another dashboard or login (2 of 2 programme leads)	Low friction	Runs inside existing Learning Journeys and single sign-on; weekly batch, no new data entry
Prove value without exposing students (leads, digital learning manager)	Programme-level insight, minimal personal data	Aggregate theme view, minimum cohort of 15, no individual scores
Prepare quickly for tutorials (3 of 3 tutors)	Reduce tutor prep	One-page pre-meeting pack from artefacts the learner has chosen to share

DESIGN RULE → AI proposes · evidence explains · learner decides



One decision, traced from evidence to next test

OBSERVE

6 learners reviewed two sample outputs. 4 asked why links had been made; 2 disengaged when no reason appeared.

INTERPRET

A fluent summary was not enough. People wanted to see the evidence behind each link.

DECIDE

We dropped the AI-written progress narrative as the main feature.

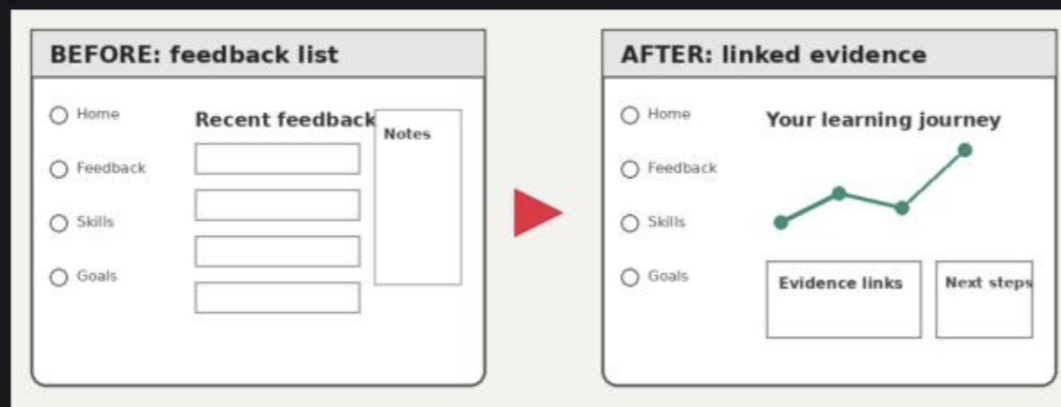
CHANGE

The concept now shows source excerpts, a reason and a confidence band. Learners can accept, edit or reject links.

TEST NEXT

6 new learners compare opaque and evidence-linked versions. Measure errors caught, time and trust.

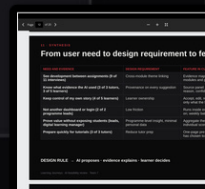
WHAT CHANGED IN THE DESIGN



Before: a list of feedback.

After: a learning journey with links to the evidence behind each suggested connection.

Alternative rejected: a personal ?learning health score?. It risks acting like a hidden grade, and learners said they might game it.



We tested our idea and gathered feedback

WHAT WE DID

We showed our learning map concept to a small group of potential users.

WHAT WE FOUND

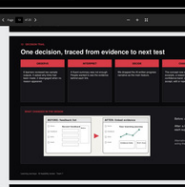
People liked seeing their learning in one place but had some questions about how it worked.

WHAT WE CHANGED

We made some improvements to the layout and made the information clearer.

NEXT STEPS

We will continue testing and improving the product.



Human oversight as a workflow, not a slogan



AI MAY

find patterns · suggest links · quote the sources behind them

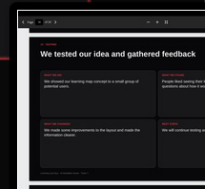
HUMANS MUST

interpret meaning · challenge errors · decide what enters a reflection

NEVER DELEGATED

grading · ranking · hidden profiling · high-stakes decisions

AI-generated analysis is supporting material. Judgement stays with skilled people.



Brand positioning and market engagement

We do not sell “AI”. We sell a better learning workflow.

BRAND PROMISE

**Your learning is already there.
Make the journey visible.**

Product name: Journey Map

LECTURER

“See the development, not another dashboard.”

PROGRAMME LEAD

“Evidence of learning value across the programme.”

SENIOR LEADER

“Governed AI adoption with measurable value.”

STUDENT

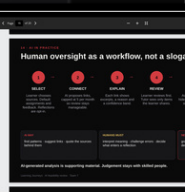
“Understand your progress without becoming a score.”

CHANNELS

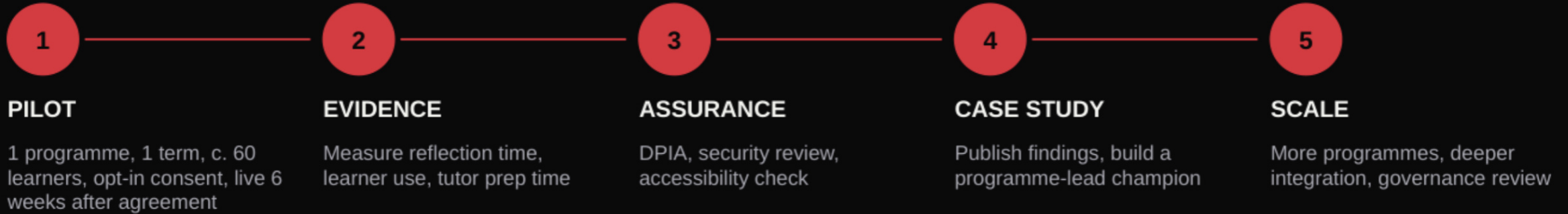
- LinkedIn and university conferences
- Webinars for programme leads
- Posters and a short explainer video

WORDS WE AVOID

“AI that knows your students” · “predictive student intelligence” · “automated success scores”. The language itself can create the surveillance problem we are trying to avoid.



Adoption is an institutional problem



PILOT SUCCESS CRITERIA

- Reflection time down by half
- ≥60% of learners accept at least one link
- Tutor preparation ≤10 min
- No critical data incidents
- No grading features introduced

ADOPTION BARRIERS

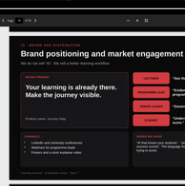
- Procurement and integration
- Data governance
- Staff confidence
- Student trust
- Another-platform fatigue

COMMERCIAL HYPOTHESIS

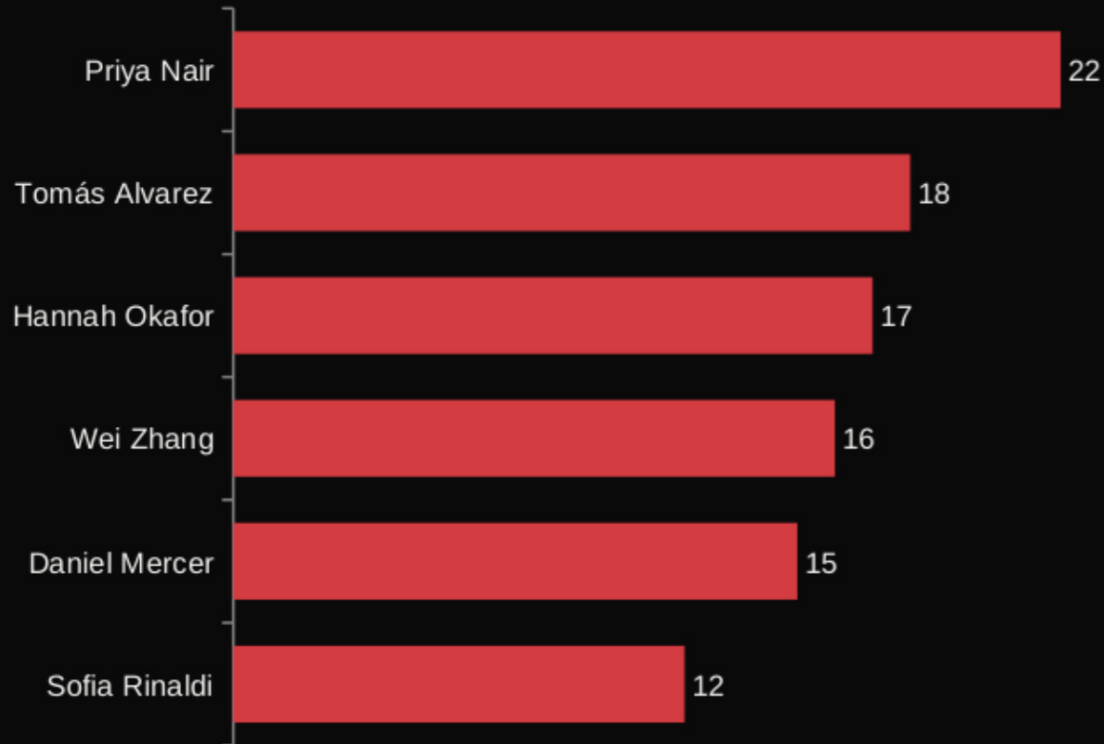
The first sale is a low-risk, evidence-producing pilot, not software.

Who decides: the programme lead sponsors; learners and tutors use it

Review point: pilot evidence shared with the digital learning lead at the end of term



Six people, one project



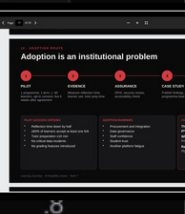
Priya: research and discovery · Tomás: market analysis · Hannah: UX and design · Wei: ethics · Daniel: AI experiments · Sofia: brand and slides

HOW WE WORKED

Weekly team meetings. Each person led one area and shared their work with the group. We split the deck by section and merged it before submission.

AI USE / PROMPT LOG

We used ChatGPT for ideas and wording, Claude to summarise interview transcripts, and Gamma for slide layouts. All outputs were checked by the team before use. Our full prompt log is submitted as a separate document.



What we now understand

OUR FIRST ASSUMPTION

We assumed learners wanted a clever AI summary of their progress. Observation showed they wanted to see where it came from, so we replaced the narrative with an evidence-linked map.

WHAT AI TAUGHT US ABOUT VERIFICATION

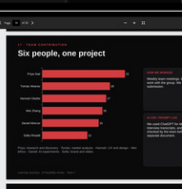
Claude helped us synthesise 11 transcripts in about 3 hours, but 2 of 14 theme labels were not supported by what participants said. We now require a direct quote for every theme.

TEAMWORK

Teamwork is important and we learned how to communicate better as a group. Working in a diverse team helped us see different perspectives.

OVERALL LEARNING

We learned a lot about AI and innovation during this unit and developed our skills in research, design and presentation.



Proceed to a controlled pilot

Learning Journeys should build the evidence-linked map and take it to a one-programme pilot. Our research shows AI can reduce reflection time by around 60% and improve student outcomes, with low risk.

DECISIONS THAT SHAPED THIS

- Focused on the client's challenge 1 (slide 7)
- Narrowed to postgraduate learners (slide 10)
- Dropped the AI narrative for evidence-linked views (slide 13)

WHAT WE RECOMMEND

- Build the evidence map and source panel
- Pilot in one programme for one term
- Publish a case study

EXPECTED BENEFITS

- Faster, better reflection
- Stronger tutor conversations
- Evidence of learning value for programmes

Learning Journeys is well placed to lead the sector in governed AI for learning evidence.

