

AI PROJECT SAMPLER

Six documented case studies of how I translate
organizational problems into usable, governed
AI-enabled systems.

PUBLIC-SAFE DEMONSTRATION

Every learner, school, district, role, event, and data point in this sampler is fictional unless explicitly identified as public research context. These examples demonstrate design logic; they do not claim deployment, efficacy, official endorsement, customer results, or automated transactions.

From an approved goal to observable practice

Sample scenario: a fictional middle school has a clear literacy goal, but professional learning attendance has not translated into consistent classroom practice.

STEP	WORKING QUESTION	SYNTHETIC SAMPLE OUTPUT
1 - Align	What approved goal controls the work?	Increase evidence-based reading responses across content areas.
2 - Define	What adult practice should be visible?	Teachers model one claim-evidence-reasoning response weekly.
3 - Evidence	What proves application - not attendance?	A scored student work sample plus a short teacher reflection.
4 - Review	What decision follows the evidence?	Continue, reteach the practice, or remove an implementation barrier.

Design principle

Evidence should arrive soon enough to change the next decision. A short cycle connects learning, practice, artifacts, review, and ownership.

A stage gate - not a leap to automation

Sample scenario: a fictional district wants a family-information assistant, but identity, content authority, and escalation rules are not yet complete.

GATE	READINESS STANDARD	AUTHORIZED NEXT STEP
Readiness	Approved content owners and risk boundaries	Prototype with public and de-identified information only.
Staff pilot	Identity, least privilege, and human review	Test one bounded workflow with a small user group.
Integrated pilot	One approved read-only source and logging	Measure quality, safety, adoption, and time value.
Controlled automation	Clear approval queue and stop conditions	Automate only the explicitly authorized step.

Operating boundary

Scale is earned at each exit gate. No writeback or consequential decision is assumed.

From exploration to a credible next step

Three synthetic journeys demonstrate how one human-guided model changes for a middle school explorer, a high school pathway planner, and an adult in transition while keeping agency, explanation, opportunity status, and privacy constant.

SYNTHETIC LEARNER	PATHWAY RESPONSE	NEXT ACTION
Grade 8 explorer	Digital Technology, Advanced Manufacturing, and Healthcare & Human Services are possibilities - not verdicts.	Try a project + two career conversations
Grade 11 health explorer	Compare CTE, credential, dual enrollment, college, WBL, and apprenticeship routes; ACT support only if relevant.	Compare programs + request a job shadow
Adult operations lead	Translate experience into supply chain, industrial maintenance, and logistics-technology routes.	Compare training, credential + apprenticeship

Decision boundary

Return several routes and a low-risk experiment. A current skill gap or missing local program never becomes a permanent judgment about potential.

A pathway-connected four-week learning sprint

Synthetic learner: Jordan, Grade 11. A selected postsecondary route may use ACT evidence, so the learner elects this support module. Jordan has 25 minutes on four weekdays, demonstrates solid reading comprehension, and needs support with algebra foundations and timed science reasoning.

WEEK	FOCUS	EVIDENCE + HUMAN CHECKPOINT
1	Diagnose algebra error patterns; establish pacing baseline	Student reflection + educator review of explanations
2	Rebuild two prerequisite skills; use short parallel sets	Accuracy by skill + confidence calibration
3	Add timed science passages; practice move-on decisions	Pace, accuracy, and counselor check-in
4	Mixed practice; compare baseline; revise next plan	Student-family summary + qualified educator review

Learning principle

Personalization is the quality of the next decision. Recommendations should show their evidence, preserve human review, and change when the evidence changes.

BOUNDARY: PrepPath is a gated prototype with enrollment on hold. This sample is not affiliated with or endorsed by ACT, Inc. It predicts no official score, contains no real student record, and never uses testing to determine career fit.

From scattered event data to a governed decision

Synthetic scenario: an operator manages a fictional event-seat portfolio and needs a repeatable view of inventory, all-in cost, market signals, and risk before approving any listing decision.

SIGNAL	SYNTHETIC INPUT	DECISION USE
All-in economics	Invoice cost + allocated fees + target margin	Establish the minimum acceptable outcome.
Market position	Comparable listings, venue section, days to event	Frame demand without treating asking price as a sale.
Portfolio exposure	Unsold inventory and capital at risk	Balance margin protection with time risk.
Confidence + policy	Data freshness, source quality, resale rules	Escalate ambiguity and preserve human approval.

Transaction boundary

The AI-assisted manager may organize evidence and recommend a next step. It does not buy, list, price, transfer, or sell tickets automatically.

Connect evidence to the next decision

An independent, vendor-neutral strategy demonstration connects instructional evidence, state-defined milestones and career pathways. CTE Policy Atlas supplies source-cited public research context with visible dates and uncertainty.

Evidence boundary	No vendor endorsement, guaranteed credit, validated assessment, commercial result or student outcome is claimed.
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Inspect the existing Learning-to-Readiness case study

Five approved project destinations

These projects reuse the existing case-study collection. Monster Truck Math has a separate sanitized learning-design walkthrough; it does not increase the six documented case-study count.

PROJECT	STAGE AND INSPECTION BOUNDARY
PrepPath	Gated prototype; enrollment held. Review the approach, not open practice.
Monster Truck Math Challenge	Family-code prototype; fictional learning-design walkthrough only. No playable link or learning-gain claim.
CTE Policy Atlas	Independent source-cited research and strategy demonstration.
InTYllectual Pathways Lab	Synthetic pathway planning; no automated placement or validated assessment.
District AI Deployment Readiness Lab	Fictional governance simulation; no AI-model or district-system connection.

Explore the portfolio Innovation Lab

PrepPath release gates: reviewed question inventory, hosted role/privacy isolation, saved progress and explicit supervised-enrollment approval. The synthetic PSL walkthrough retains zero automated transactions and no real ticket or financial records.

AI should expand human capacity without obscuring human responsibility.

Across these six case studies, the pattern is consistent: begin with a meaningful problem, make the decision logic visible, use the least-sensitive data possible, establish human review, and define evidence before scale.

DISCOVER	Clarify the problem, user, constraint, and evidence source.
FRAME	Name the decision, authority, data boundary, and success measure.
BUILD	Create the smallest usable prototype with synthetic or approved information.
GOVERN	Add review, logging, escalation, access, and stop conditions.
SCALE	Expand only when quality, safety, adoption, and value are demonstrated.

Explore the interactive case studies at ty-holston-executive-portfolio.aumnpupe.chatgpt.site

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