WORKFLOW REDESIGN · CASE STUDY

Instructional Workflow Intelligence

Built by Ashima

PHASE 1 → PHASE 2

Redesigned adoption visibility from scattered spreadsheets to a centralized intelligence system.

37	3 → 1	70–90%	4
STUDENTS FLAGGED	DATA SOURCES UNIFIED	TIME SPENT CHASING REPORTS	STEPS, ONE WORKFLOW

BEFORE
4 scattered sources · manual · reactive

AFTER
1 centralized system · automated · proactive

01 THE PROBLEM · BEFORE

Fragmented adoption tracking & hidden operational risk

// THE WORKFLOW LIVED IN SCATTERED PLACES



Why this mattered: missed adoptions directly impact students — this system prevents that.

PAIN POINTS

01 Scattered data sources

02 Manual tracking across multiple sheets

03 High risk of missed adoptions

04 No centralized visibility

05 High cognitive load for staff

06 Reactive instead of proactive workflow

02 OBJECTIVES

What the redesign had to achieve

01
Centralize visibility
Replace scattered sources with one authoritative view of adoption status.

02
Detect gaps automatically
Surface every missing, changed, or pending adoption without manual checking.

03
Reduce manual load
Cut the time spent investigating and drafting outreach during rush.

Make it repeatable
Capture the workflow as a reliable system that runs every term-end.

THE SHIFT Scattered · manual · reactive → **Centralized · automated · proactive**

03 WORKFLOW DESIGNER

One workflow, four steps

UPLOAD
Drop raw exports
Two terms parsed into one comparable structure.

DETECT
Flag every gap
GAP, CHANGED, and PENDING labelled per course.

DISPATCH
Send drafted emails
Pre-written, grouped by contact.

TRACK
Resolve & track
Mark replies, follow-ups until it's automatically.

FEEDBACK LOOP Triage outcome → Status updated → Dashboard refreshed → Re-run next term

04 DATA ARCHITECTURE

Five layers, one pipeline

SOURCES
Instructional Materials System — Data Analytics
Email inbox — Records Admin
Spreadsheets — Prior tracking

INGESTION & CLEAN
Normalize & reconcile
Parse exports, standardize fields, align two terms into one comparable structure.

DETECTION ENGINE
Gap analysis & ID labelling
Rules classify each course: GAP, CHANGE, or PENDING — then rank by priority.

AUTOMATION
Outreach generation
Context-aware emails drafted per faculty and grouped by contact.

PRESENTATION
Dashboard & triage board
Filters, sorting, CSV export, priorities, and resolution tracking.

05 DATA MODELS

Neutralized entity structure

Field names generalized; values shown as illustrative placeholders only.

Course
- course_code — COURSE_101
- term — TERM_A / B
- section — 01
- instructor_ref → Instructor

Adoption
- course_ref → Course
- status — GAP, CHANGED, PENDING
- material_ref — ITEM_001
- priority — High / Med / Low

Instructor
- instructor_id — INSTRUCTOR_A
- contact_ref → Contact
- department — Dept. 3
- outreach_state — Sent / Replied

// Managed by Academic Services author on academic operations environment

06 DASHBOARDS & EXHIBITS · AFTER

A decision-ready view of every gap

37 COURSES FLAGGED
18 GAPS
7 CHANGES
12 PENDING



RECOVERY LIST — TOP PRIORITIES

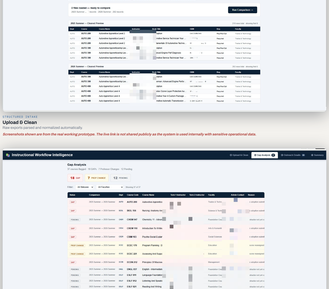
COURSE	INSTRUCTOR	STATUS
COURSE 101	Instructor A	GAP
COURSE 214	Instructor B	CHANGE
COURSE 330	Instructor C	PENDING
COURSE 402	Instructor D	GAP

// Illustrative data — all values, names, and names are synthesized placeholders

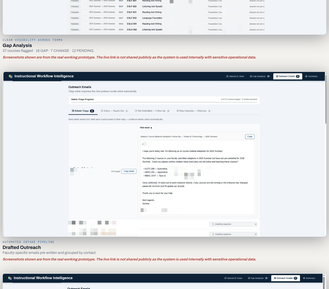
WHAT CHANGED

- Centralized MasterTracker
- Automated intake pipeline
- Structured adoption data
- Clear visibility across terms
- Reduced manual investigation load
- Predictive insights for adoption cycles
- Clearer workflow architecture

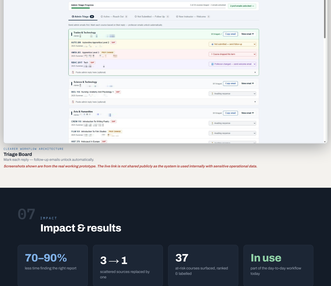
THE SYSTEM IN ACTION



Summary Dashboard — Centralized MasterTracker
One source of truth: gaps by faculty, course, and term — with automatic summary.
Screenshots shown are from the real working prototype. The live link is not shared publicly as the system is used internally with sensitive operational data.



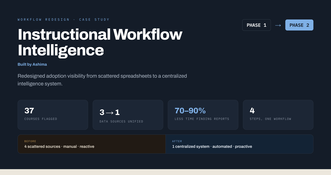
UPLOAD & CLEAN
Upload & Clean
Raw exports parsed and normalized automatically.
Screenshots shown are from the real working prototype. The live link is not shared publicly as the system is used internally with sensitive operational data.



DETECTION ACROSS TERMS
Gap Analysis
37 courses flagged · 18 GAP · 7 CHANGED · 12 PENDING
Screenshots shown are from the real working prototype. The live link is not shared publicly as the system is used internally with sensitive operational data.



AUTOMATED EMAIL PIPELINE
Drafted Outreach
Faculty-specific emails pre-written and grouped by contact.
Screenshots shown are from the real working prototype. The live link is not shared publicly as the system is used internally with sensitive operational data.



TRIAGE & RESOLUTION ARCHITECTURE
Triage Board
Mark each reply — follow-up emails unlock automatically.
Screenshots shown are from the real working prototype. The live link is not shared publicly as the system is used internally with sensitive operational data.

07 IMPACT

Impact & results

70–90%
less time tracking the right report

3 → 1
scattered sources replaced by one

37
courses surfaced, sorted & labelled

In use
part of the day-to-day workflow today

OUTCOMES

- Clear visibility into adoption cycles
- Reduced manual tracking workload
- Centralized data for decision-making
- Improved accuracy and consistency
- Better operational flow for staff
- Foundation for future automation phases

SKILLS DEMONSTRATED

Workflow redesign · Systems thinking · Data architecture · Operational analysis · Automation planning · Dashboard design · Process mapping