WHITEPAPER

Beyond Optimization: Transforming Business Workflows with Agentic AI

A 7-Step Framework for Escaping from AI Pilots to Arrive at Enterprise Value

Table of Contents

Executive Summary ›

What AI Workflow Redesign Is and Isn’t ›

What AI Business Process Redesign Really Means ›

Why Workflow Redesign Is the Missing Layer in AI Transformation ›

A 7-Step Framework for AI Workflow Redesign ›

The Business Benefits of AI Workflow Redesign

Common AI Workflow Redesign Mistakes to Avoid

Why Operational Adaptability Is a Competitive Advantage in the Age of Agentic AI

Key Takeaways: Building Adaptive AI-Powered Workflows

About Marlabs

INTRODUCTION

Executive Summary

We argue that one of the greatest barriers to AI transformation is not the technology itself. It’s the legacy workflows that govern how we work.

In our article on which business processes are best redesigned with AI, we explained why organizations must redesign legacy processes for an agentic world and explored the risks of simply bolting agentic AI onto outdated ways of working.

This whitepaper dives deeper into the practical side of workflow redesign. We'll examine:

- What workflow redesign really means
- A practical, seven-step framework for workflow redesign
- The business benefits of workflow redesign
- Common mistakes to avoid
- Why operational adaptability is becoming a competitive advantage

By the time you finish reading this paper, you'll understand how workflow redesign will enable your organization to move beyond AI pilots and build the adaptive execution systems required for AI transformation.

> **"One of the greatest barriers to AI transformation is not the technology itself. It's the legacy workflows that govern how we work."**

DEFINITIONS

What AI Workflow Redesign Is and Isn’t

Workflow redesign is often confused with workflow optimization. The distinction is often overlooked but strategically important to understand.

The following are NOT examples of business workflow redesign:

- Sprinkling AI into current steps
- Adding an AI assistant like Copilot into existing workflows
- Automating isolated tasks
- Keeping the approvals, handoffs, and coordination layers that exist today
- Wrapping legacy systems in conversational interfaces

These are just attempts at optimization. They might improve efficiency in some places, but they do not **fundamentally redesign how teams complete their work,** which is far more powerful.

THE REAL DEFINITION

What AI Business Process Redesign Really Means

True AI workflow redesign means you question the very purpose of a workflow, then deliberately **reinvent** how work is executed as a dynamic system that leverages the strengths of agentic AI systems working alongside humans.

We'll provide a detailed framework for workflow redesign later in this paper, but, in short, this is what organizations need to do to build adaptive execution systems:

- Define the workflow purpose by starting with inputs and desired outcomes.
- Reimagine the sequence of work, who or what does it, and the metrics you want to achieve

based on leveraging the strengths of agentic AI capabilities.

- Examine and deconstruct the existing workflow. Decide which steps can be delegated to AI agents, automated, or retained by supervising humans.
- Redesign workflows for an AI-native world by collapsing, compressing, or completely reimagining them instead of automating an existing process as it is.
- Specify how decisions should be made and governed.

> **"True AI workflow redesign means you question the very purpose of a workflow, then deliberately reinvent how work is executed as a dynamic system."**

THE MISSING LAYER

Why Workflow Redesign Is the Missing Layer in AI Transformation

Most AI initiatives focus on task-level improvements, such as summarizing text or documents, generating insights, or automating isolated steps. These improvements are useful, but they are constrained by the structure of the underlying workflow.

Traditional workflows were built for:

- Sequential human execution
- Manual coordination between functions
- Slow decision cycles
- Static rules and approvals

Agentic AI doesn't fit into that context. Moreover, it doesn't operate effectively within such constraints. That's because AI agents can plan, analyze context, make decisions, coordinate, and take multi-step actions across systems, and they adapt in real time all on their own.

The key to moving from AI experimentation to AI transformation is this: organizations must change their approach from **task automation** ("What can AI do within this step?") to **workflow redesign** ("What should this entire process look like if AI is part of the execution layer?").

Task-level thinking results in:

- Faster individual steps
- Isolated productivity gains within siloed departmental activities
- Limited cross-functional impact

Workflow-level redesign creates a broader impact across the entire process and enterprise:

Efficiency and flow

- Faster end-to-end processes leading to accelerated throughput
- Reduced coordination and communication burdens
- Fewer handoffs, delays, and bottlenecks, lessening operational friction

Intelligence and autonomy

- Flexible workflows that adapt dynamically and run in parallel
- Instant, context-aware decision-making
- Autonomous execution paths that require minimal human oversight

Self-improvement

- Systems that learn and improve continuously through feedback

Workflow redesign is the missing layer in most attempts at AI transformation. AI can't truly transform work when it's aim is optimizing individual tasks. The only transformation happens is when organizations redesign the processes that govern how teams work.

Without workflow redesign, AI improves individual tasks. With workflow redesign, AI also changes how decisions are made, how work flows across the organization, and how value is created at scale.

AI provides the capabilities. Workflow redesign turns those capabilities into measurable business value.

Without workflow redesign, AI initiatives remain stuck at the task level. With redesign, organizations begin to build intelligent, adaptive systems that continuously improve how work is performed.

> "Without workflow redesign, AI improves individual tasks. With workflow redesign, AI changes how decisions are made, how work flows across the organization, and how value is created at scale."

THE FRAMEWORK

A 7-Step Framework for AI Workflow Redesign

There is no universal blueprint for redesigning workflows, but successful organizations tend to follow a similar process.

The seven steps below provide a practical framework for redesigning workflows around agentic AI while balancing automation, human oversight, governance, and continuous improvement.

Use our framework as a starting point to build adaptive execution systems that continually align with your organization's goals, processes, and level of AI maturity.

1

Choose the Right Starting Point

Identify one high-impact, high-volume process that currently suffers from lengthy delays, excessive coordination and handoffs, frequent errors, fragmented systems, and heavy manual effort.

Focus on workflows that cross multiple departments or involve repetitive judgment calls that AI agents can support.

2

Start with Outcomes, Not Existing Steps

Legacy workflows are organized around **tasks and departments.**

AI-first workflows should be organized around **outcomes.**

Bring together stakeholders, clarify input, and then define the business or customer outcomes you want the workflow to deliver.

Taking this outcome-first approach will expose unnecessary approvals, handoffs, validations, and administrative steps that existed only to bridge previous human or technical limitations. Remove the overhead, and you'll create the conditions for faster, more intelligent agentic execution.

3

Map What Current Workflows Actually Look Like

Take time to document your existing process in detail, including:

- Manual coordination points
- Approval chains
- The amount of time spent at each stage
- Unofficial workarounds
- Delays and bottlenecks
- Duplicate or low-value activities

This exercise often reveals that the greatest inefficiencies stem from excessive coordination, fragmented decision-making, and operational complexity.

4

Redesign the Workflow around Agentic Capabilities

Traditional workflows were designed around people making every decision and coordinating every step. With AI-enabled workflows in agentic environments:

- Specific routine decisions can be automated or delegated to **agents**
- **AI systems** can gather information, analyze context, coordinate across systems, and execute routine work autonomously
- **Humans** focus on exceptions, strategic judgment, oversight, and relationship

management

Logically, AI focuses on achieving outcomes as efficiently and intelligently as possible. As a result, AI doesn’t operate around the organizational hierarchy in your org chart, even though this same organizational structure was critical to human-only workflows.

To support agentic systems, you must design end-to-end value streams rather than optimizing work in siloed departments.

Break down your existing workflow into clear categories, such as:

- Fully automated activities, including coordination, preparation, routine execution, and data synthesis. Delegate mundane, repetitive tasks to AI agents.
- Agent-led activities with human oversight.
- Fully human-led decisions requiring sensitivity, ethics, institutional knowledge,

relationship management, or nuanced judgment.

By separating decision-making from execution, organizations can execute work in parallel instead of sequentially. That turns formerly slow, human-paced models into AI-paced decision-making, coordination, and execution across the workflow.

Redesigning workflows in this way aligns with the AI Fluency Framework, which provides a practical way to think about how people and AI can collaborate safely, responsibly, effectively, and efficiently. It focuses on understanding what AI can do, its limitations, and strategies for responsible AI-human interaction.

The framework was developed by professors Rick Dakan and Joseph Feller. Anthropic later adopted this framework and incorporated it into its AI fluency educational programs, expanding its reach to a broader audience.

While the AI Fluency Framework is not a workflow redesign methodology, it complements workflow redesign by focusing on the human capabilities required for effective AI-human collaboration.

The framework was built around four essential and interconnected competencies that people need to work effectively with AI. Known as the 4 D’s, these skills are: delegation, description, discernment, and diligence.

The process we described where people must decide which workflow activities should be automated, delegated to agents, or retained by humans thus aligns closely with what the framework calls “delegation.”

Applied together, all four competencies help organizations decide what work should be performed by people, AI systems, or both; how AI should be guided; how outcomes should be evaluated; and how accountability should be maintained.

> **"AI doesn't operate around the organizational hierarchy in your org chart—even though that same structure was critical to human-only workflows."**

5

Eliminate Friction and Redesign for Continuous Flow

Most workflow friction and delays aren’t caused by people doing the work. They are caused by coordination activities, such as approvals, waiting, routing, handoffs, meetings, and status checks.

Many existing processes contain layers of activities that exist only because of earlier limitations.

For example, systems could not integrate, human validation had to be performed manually, compliance reviews needed additional oversight, and extensive human coordination was required to move work from one stage to the next.

Identify and eliminate activities that no longer add value, including:

- Status checks
- Duplicate data entry
- Unnecessary escalations
- Email approvals
- Repetitive handoffs
- Manual routing between teams
- Batch processing (approvals once a day, month-end reconciliations, or periodic reporting cycles)

Agentic systems can handle most coordination directly, so your workflow redesign eliminates the need to operate in disconnect stages or periodic review cycles. Indeed, designing for continuous flow rather than batch processing is one of the most important structural changes in AI transformation.

AI also enables workflows to support real-time analysis, continuous decision-making, ongoing monitoring and adjustment, and faster escalation.

6

Build Governance, Oversight, and Continuous Improvement

Many worry that redefined AI-enabled workflows will replace humans, but they do not. They reposition people within the new process and rethink where human judgment creates the most value.

Establish clear rules and procedures for:

- When AI agents should act independently
- When escalation is required
- How outcomes are monitored and audited

The AI Fluency Framework calls this process "description." It's where people must clearly define goals, expectations, constraints, escalation paths, and operating boundaries so that AI systems can perform consistently and responsibly.

It's also important to build feedback loops into the process so your new workflows can adapt as AI capabilities advance. Incremental improvements can evolve into broader redesign over time.

Schedule regular review sessions so people can provide feedback and refine AI agent behavior over time.

Human judgment remains essential for governance, creativity, ethical decisions, exception handling, and relationship-driven interactions. This responsibility aligns with what the AI Fluency Framework calls “diligence”: maintaining accountability, transparency, oversight, and responsibility for AI use.

> **"Many worry that redefined AI-enabled workflows will replace humans. They don't. They reposition people where human judgment creates the most value."**

7

Test, Measure, Iterate, and Scale the Redesigned Workflow

Test your redesigned workflow in a controlled pilot that starts with a limited rollout. Collect

> data to measure the following: cycle time, quality, agility, exception rates, user experience, operational efficiency, risk reduction, business outcomes, and new value created.
>
> Use the insights you gain to refine the workflow design, governance model, and human-AI interaction framework before you scale. Treat the workflow as an adaptive system that evolves as AI capabilities and business needs change.
>
> The AI Fluency Framework calls this process “discernment,” which is evaluating the quality of AI outputs, assessing how effectively people and AI are working together, and identifying opportunities for improvement.
>
> Organizations that will benefit most from AI are the ones that will continuously refine how humans and intelligent systems work together. If you’ve done workflow redesign effectively, your efforts will yield a more productive partnership between people and AI systems.

BUSINESS IMPACT

The Business Benefits of AI Workflow Redesign

- Work transforms from sequential to parallel execution.
- Decision cycles shorten dramatically.
- Coordination becomes embedded within intelligent systems, rather than relying on human intervention.
- Bottlenecks become visible and easier to remove.
- Workflows become dynamic and responsive to real-time conditions.

Most important, workflows evolve from static roadmaps into adaptive execution systems that continuously evolve and improve over time using data, intelligence, and learning.

“Companies that redesign their workflows once and assume the job is finished will fall behind.”

"AI provides the capabilities. Workflow redesign turns those capabilities into measurable business value."

PITFALLS

Common AI Workflow Redesign Mistakes to Avoid

Designing workflows with no frontline involvement: Redesigning workflows in isolation without the people who currently perform the work undermines adoption and weakens ownership. Involve all stakeholders to shape the future redesign.

Treating AI as an add-on layer: Embedding AI into unchanged workflows preserves inefficiencies and limits the impact and gains.

Automating broken workflows: Without refining the underlying process, automation will amplify any inefficiencies rather than resolving them.

Keeping human-centric handoffs intact: If you retain legacy approval chains and coordination steps, you will inevitably block true end-to-end transformation.

Over-engineering governance: Excessive control layers and over-engineered governance slow execution and introduce new bottlenecks.

One-off transformation mindset: Treating redesign as a project instead of an ongoing capability limits the long-term value of AI.

Success depends on more than technical design. Your leaders need to be visible and supportive from the start, and data readiness and system connectivity must be addressed early.

Ignoring these factors is often the difference between isolated AI adoption and true enterprise transformation. Plan for human transition by updating roles, providing training on agent supervision, and communicating how people's roles become more strategic.

COMPETITIVE ADVANTAGE

Why Operational Adaptability Is a Competitive Advantage in the Age of Agentic AI

Historically, organizations competed on factors like efficiency, scale, expertise, intellectual property, or access to capital.

Those advantages continue to be valuable, but agentic AI introduced a new differentiator: **operational adaptability.**

This concept matters because AI capabilities are evolving rapidly. New models, agents, tools, regulations, governance requirements, and customer expectations are constantly reshaping how teams can and should work.

Companies that redesign their workflows once and assume the job is finished will fall behind.

But organizations that continuously and systematically refine how people and intelligent systems work together will emerge as leaders.

They are building the ability to redesign workflows faster, update governance models more effectively, integrate new AI capabilities more quickly, and adjust their operating models as conditions change.

In this way, operational adaptability becomes a strategic capability.

If your organization can rapidly reconfigure workflows and decision-making structures, it will be better positioned to compete on speed, innovation, customer responsiveness, operational resilience, and overall AI success.

In the end, just because an organization launches the most AI initiatives doesn’t mean it will emerge as a leader. Success will come down to how effectively organizations adapt as AI capabilities and market conditions continue to evolve.

KEY TAKEAWAYS

Key Takeaways: Building Adaptive AI-Powered Workflows

The seven-step framework provides a practical starting point for redesigning workflows around agentic AI.

The main advantage of workflow redesign lies in building your organization’s ability to continuously evolve how teams complete their work as AI capabilities, technology, business needs, and market conditions change.

Workflow redesign indicates a structural shift from static processes to adaptive systems of execution.

The objective will change from managing processes to managing intelligent systems of execution.

Establish clear rules and procedures for:

- Workflows function as responsive systems shaped by data, context, and intent.
- AI acts as both a coordinator and executor.
- Humans provide judgment, direction, oversight, and accountability.
- Work is organized around outcomes rather than fixed sequences of tasks.

As agentic AI becomes more capable, leaders must redefine:

- How AI fits into the workforce
- How it is embedded into core processes

- How responsibilities are shared between people and intelligent systems
- What governance structures will ensure reliability, transparency, and control

This evolution establishes workflow redesign as a continuous core organizational capability that must be actively developed.

In the agentic era, organizations that can repeatedly re-architect how people and AI work together will gain a lasting competitive advantage. This work must be done systematically, deliberately, and at scale, and it must begin now.

About Marlabs

Marlabs is a global AI and digital transformation partner that helps enterprises move from AI experimentation to measurable business impact. We specialize in agentic AI implementation, workflow redesign, intelligent automation, and building responsible human-AI operating models.

We can help you redesign workflows, reduce friction, and build effective governance so your organization can unlock sustained value from a human-AI workforce.

Ready to Take the Next Step?

Ready to move beyond AI pilots and redesign how your teams execute their work? Marlabs can help you reimagine workflows for AI transformation, reduce operational friction, and build scalable agentic operating models.

Contact us to schedule a discussion.

Learn more about our AI services:

AgilityAI

AI Consulting Services

AI Transformation

> "In the agentic era, organizations that can repeatedly re-architect how people and AI work together will gain a lasting competitive advantage. This work must begin now."

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