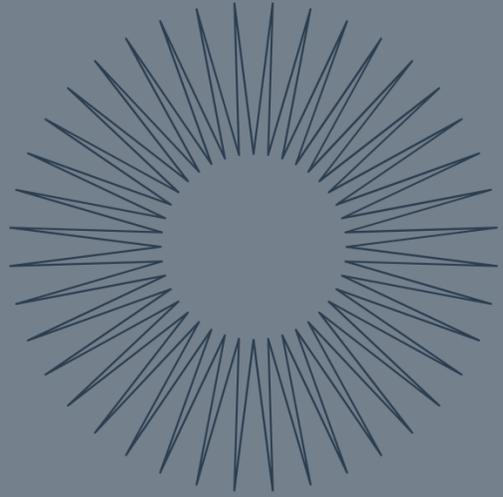


Developing Acceptance Pathways: Integrating AI into Research Development Workflows

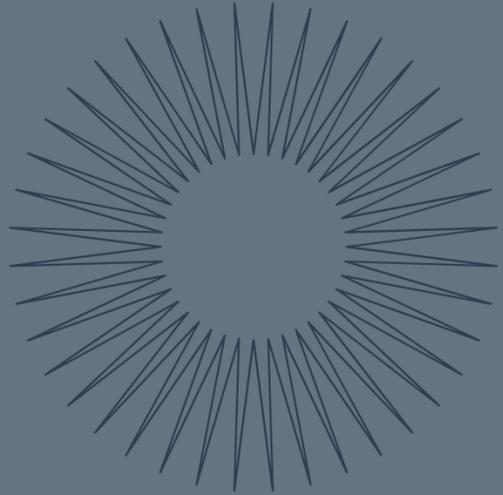
*Moving from Tool Overload to Strategic, Policy-Aligned AI
Adoption*



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“Artificial intelligence is increasingly being integrated into nearly every sector of the economy and society.” - National Institute of Standards and Technology, AI Risk Management Framework (2023)



How to Read This Framework

This framework is intentionally tool-agnostic and function-focused.

The emphasis is on where AI can support research development work, not on endorsing specific platforms.

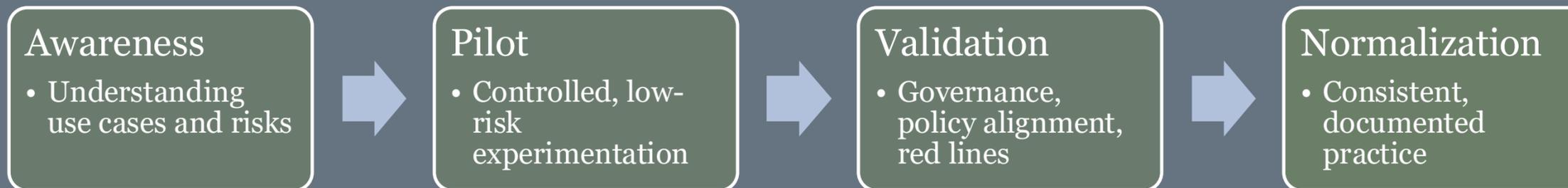
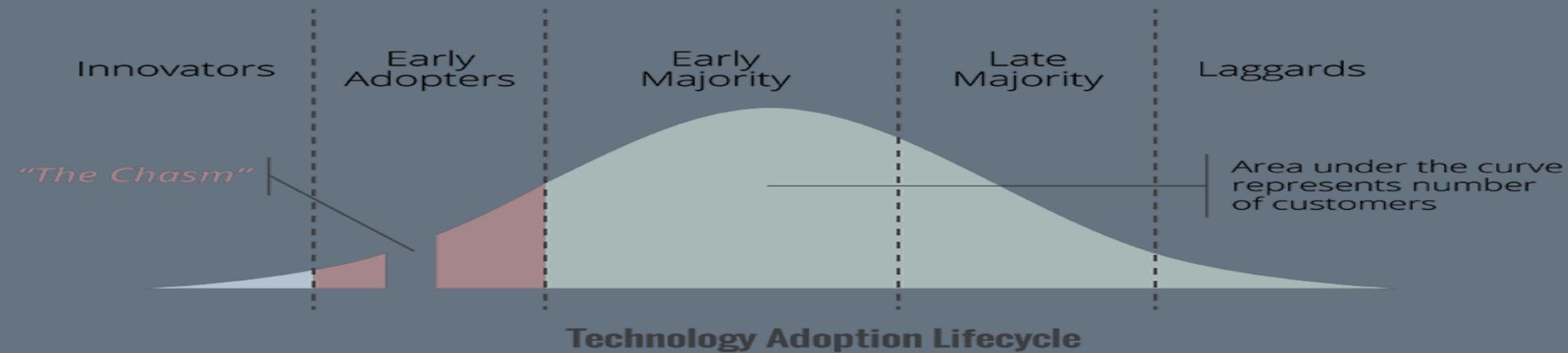
Challenges in Adoption

The integration of AI into research development workflows presents several well-documented challenges, including resistance to change, the need for enhanced training, and concerns related to data privacy and risk. Identifying and addressing these common barriers is essential for supporting responsible AI adoption within operational research development workflows.



The Acceptance Pathway

Framework: A Four-Stage Roadmap



Framework Steps: Overview

Awareness

The **awareness phase** involves educating stakeholders about AI's potential benefits and addressing misconceptions in research workflows.

Pilot

The **pilot phase** initiates small-scale AI trials, allowing teams to evaluate effectiveness and gather feedback for improvements.

Framework Steps: Validation & Normalization

Validation

The **validation phase** ensures AI tools meet established standards and effectively support research objectives and workflows.

Normalization

Normalization integrates AI into routine practices, fostering a culture of acceptance and ongoing evaluation within research teams.

Strategic Validation: Defining Red Lines for AI Use

Note: Validation is a governance step, not a technical test.

Red Lines Define:

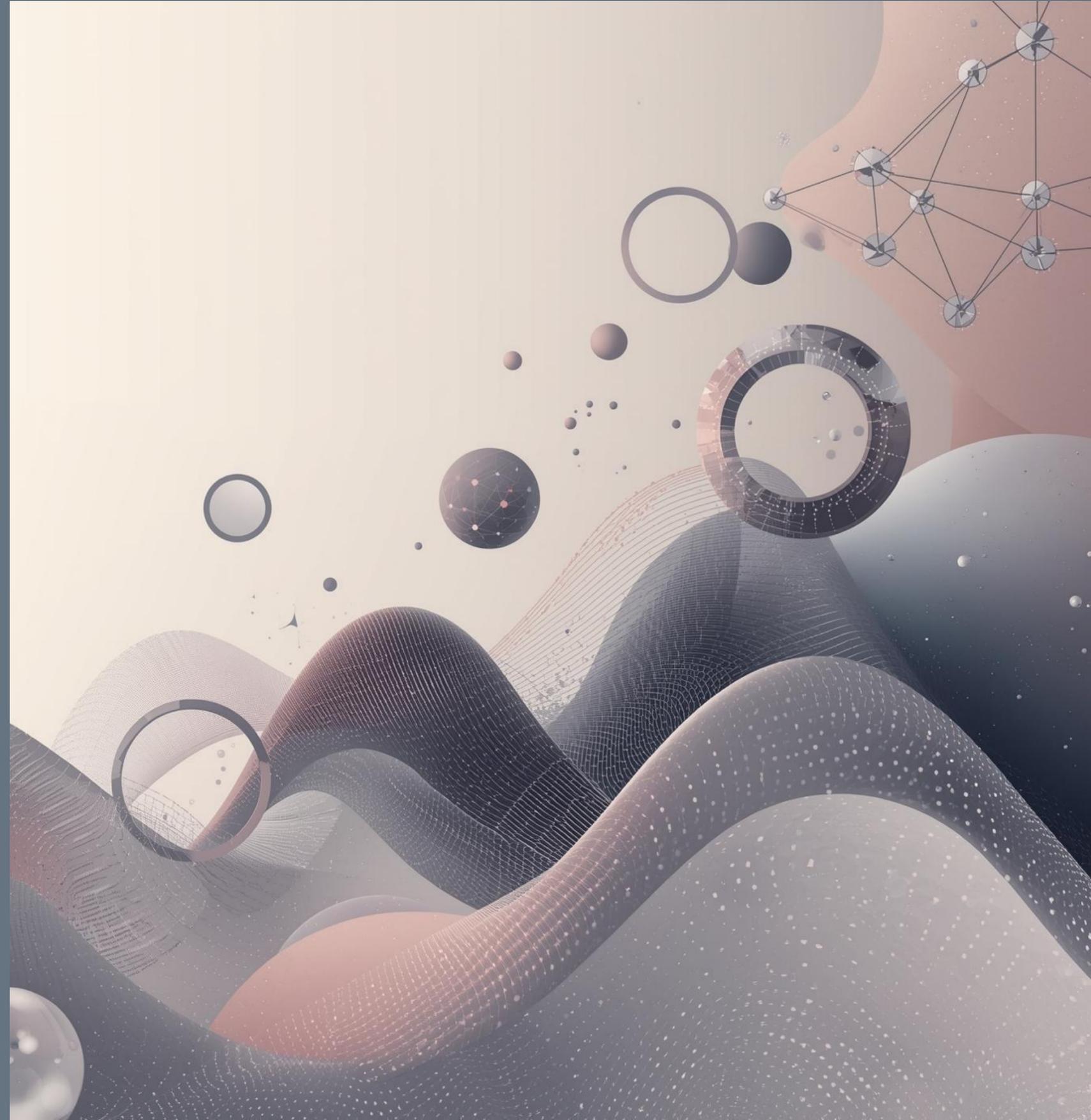
- What AI may assist with
- What AI may never decide or submit

Red Lines Are:

- Sponsor-aware
- Policy-aligned
- Role-specific (e.g., RDO, analyst, leadership)

Case Example: AI Funding Searches

This case study examines how AI can **streamline funding searches, enhancing efficiency & accuracy**. By automating the identification of relevant grants, researchers can focus on strategic priorities, ultimately supporting innovation and collaboration within research development workflows.



AI Augmented Funding Search

Task: Identify and assess potential funding opportunities for faculty

Tradition

Traditional workflow relies on manual keyword searches and iterative filtering.

AI Introduction

AI is introduced upstream to support broad scanning and early synthesis.

Broader semantic scanning and rapid opportunity summaries.

Additional prompt-based summarization was introduced by one team as an ad-hoc efficiency.

Evaluation

Final judgement and recommendations remain with the RDO.

RDO validates relevance, eligibility, and sponsor alignment.

Human decision authority is preserved at all stages

Workflow Comparison

What AI Augmentation Changes

AI Shifts the Work - Not the Responsibility

AI augmentation changes where time and attention are spent in research development workflows

- Reduces repetitive screening and manual navigation
- Expands awareness of relevant funding opportunities beyond keyword limits
- Accelerates synthesis of eligibility, scope, and requirements
- Surfaces potential collaborators by aligning expertise to opportunity needs
- Supports faster, more intentional research team formation across and beyond the institution

Human decision authority is preserved at all stages.

Workflow Comparison

What AI Augmentation Enables for Teams

From Individual Search to Strategic Team Formation
AI assisted workflows support collaboration at scale by:

- Identifying internal expertise aligned with funding opportunity requirements
 - Revealing complementary skills and roles needed for competitive teams
 - Supporting early-stage team formation before deadlines compress collaboration
 - Reducing time spent on ad hoc outreach and manual coordination
 - Enabling RDOs to act earlier as facilitators of team science
-

Workflow Comparison

What AI Augmentation Does Not Change

What Remains Human-Led and Accountable
AI does not replace professional judgment or relationships

- Final funding opportunity selection
- Compliance, eligibility, and policy validation
- Relationship building with faculty and partners
- Strategic decisions about team composition and leadership
- Accountability for proposal development and submission

Observed and Participant-Reported Outcomes from an AI-Augmented Funding Workshops



Participants reported significant gains in understanding AI-supported funding searches



Most attendees had limited prior experience, indicating low baseline familiarity



Post guided exposure, participants perceived clear time savings and practical value



Continued use was more strongly associated with training and support than with tool features

Note. Reported outcomes reflect participant feedback and observed workflow changes; they are not performance benchmarks.

Practical Guardrails and Boundaries

AI outputs are treated as signals or drafts, not final answers

Restricted

No restricted, sensitive, or proposal-ready content is loaded into external systems. Only enterprise approved systems are used.

Validated

All results are validated against authoritative sponsor sources.

Limitations

Accountability for decisions remains with appropriate institutional personnel.

Strategic Considerations

Navigating Practical Challenges

Building Trust

Adoption depends less on the tools themselves and more on confidence that AI is being used carefully, transparently, and in ways that respect professional judgment, compliance expectations, and institutional norms.

Training and Support

Effective use requires shared guidance, low-barrier training, and clear points of support so staff know not only how to use AI tools, but when their use is appropriate—and when it is not.

Future of AI

The future of AI in research and development points toward normalized workflows, clear documentation, and intentional trust-building that support enhanced efficiency. As institutions pursue strategic integration, these practices can enable meaningful improvements in research workflows while fostering a culture of responsibility and transparency in AI use across the research landscape.



Key Takeaways

A Shared Language for AI Use

Neutral, role-appropriate language to discuss AI with faculty, leadership, and compliance partners without promoting tools or overpromising outcomes.

A Stepwise Acceptance Pathway

A four-stage roadmap (Awareness, Pilot, Validation, Normalization) you can adapt to your office's current AI readiness and risk tolerance.

A Model for Defining AI “Red Lines”

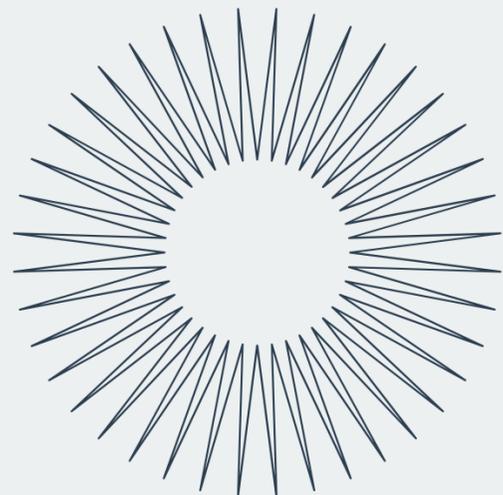
A governance-based approach for determining where AI may assist and where human judgment and accountability must remain absolute.

A Repeatable Workflow Lens

A way to evaluate where AI can reduce administrative burden in common RD tasks while preserving professional authority and compliance.

A Foundation for Consistent Practice

Starting points for documenting AI use, building internal playbooks, and supporting trust as AI becomes a normalized part of research development work.



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