# Al-Augmented Engineering Teams

Roles, Skills & Leadership

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Director of Engineering, GitLab

## Agenda

- 1 Why Traditional Teams Break
- New Division of Labor
- 3 Evolving Roles in the AI Era
- 4 Critical Skills Needed
- 5 The Al Impact Playbook

#### **Silos**

**Trad**: Roles separated, handoffs

AI: Work flows across code, design, test;

fluid collaboration wins

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#### **Creative + Tech**

Trad: Designers vs. engineers

AI: AI-powered creativity; creativity &

engineering converge



Al vs Human

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Code generation, testing, QA, ticket routing, release notes

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#### **Lead & Innovate**

Motivate teams, break silos, own accountability for outcomes

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Security Engineer	Run scans, patch threats	Al detects anomalies; focus on validation and innovation in How Al will engage with the system

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Adjust quickly when conditions or priorities shift View change as opportunity, not disruption, Risk Acceptance

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**Trust but Verify** 

Track performance, fairness & compliance in AI systems
Provide clear explanations, accountability and metrics for AI decisions

5 Strategic Moves for the Next 6 Months



- → Identify high-friction tasks
- → Pilot in low-risk areas
- → Scale successes quickly

Quick wins & visible ROI

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## Integrate Al into Workflows

#### **KEY ACTIONS**

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## Set Al Literacy Standards

#### **KEY ACTIONS**

- → Define baseline knowledge
- → Provide hands-on training
- → Create shared vocabulary

Empowered & aligned teams

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3

#### Measure & Monitor Results

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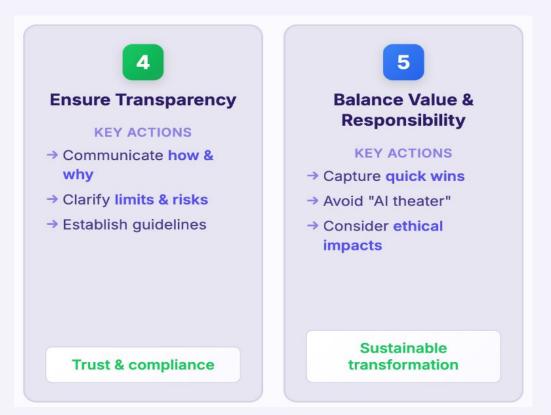
- → Track productivity metrics
- → Compare Al vs non-Al
- → Build feedback loops

**Data-driven decisions** 

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How GitLab Transformed Code Reviews with ♥ GitLab

### What are Code Reviews?

Code reviews are a critical part of the software development process where developers examine each other's code before it's merged into the main codebase.

This collaborative practice helps

- 1. Catch bugs
- Ensures code quality
- 3. Maintains coding standard
- 4. Shares knowledge across the team.

How GitLab Transformed Code Reviews with ⊌ GitLab



#### **Integrate Al into Workflows**

#### **Friction Point Identified:**

Code reviews take a significant amount of engineering time in the development process

#### Solution:

Integrated Duo Code Review into our GitLab workflow with flexible options:

- Automatic triggers for code review
- On-demand selection by team members
- Al-powered suggestions to expedite development

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2

#### **Set Al Literacy Standards**

#### **Actions Taken:**

- Created comprehensive documentation
- Shared videos and demos
- Established common vocabulary around Alassisted reviews

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#### **Measure & Monitor Results**

#### **Metrics Tracked:**

- MR (Merge Request) Revert Rate
- MR Cycle Time
- Review Comment Density
- Lines of Code per MR

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#### **Ensure Transparency**

#### **Communication Strategy:**

- Multi-channel updates on benefits
- Clear labeling of Duo-reviewed code
- Open dialogue about Al capabilities and limitations

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### **Balance Value & Responsibility**

#### **Quick Wins Captured:**

- Used tools to show before/after metrics
- Shared productivity gains organization-wide
- Maintained focus on quality alongside speed

# **Thank You!**

Let's continue the conversation

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#### Free Prompt Engineering Guide

For Engineering Leaders



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