

# Lessons from Transforming Teams to AI-Native Workflows

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# About Me

- Grew up at Thoughtworks
- Joined Amazon's Software Builder Experience (ASBX) two years ago
- Initially improving AI Adoption, then piloting AI-Native workflows with organizations that are embracing AI
- Co-founding a startup to drive AI effectiveness for enterprises

# What does AI-Native mean?

Reinventing the entire product development workflow with AI at the center.

## **In practice:**

- AI agents do the heavy lifting on low-value coding, maintenance, and operations tasks, while the developer directs and supervises.
- AI Agents assist technologists to ideate, design and build.
- *What else?*

**Lesson 1: Empower teams:** Through trusted leaders,  
building blocks & community

## 1) Empowering teams

Managers and trusted senior technical leaders are key to enable teams.

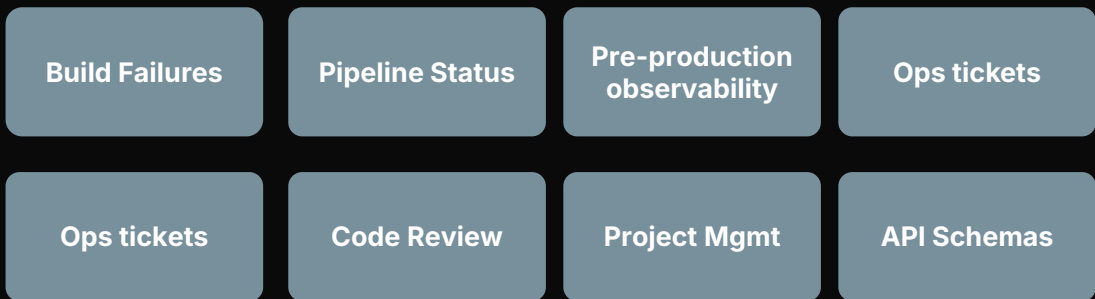
They are often neglected with training. We educated on:

- Everyone has misunderstanding and misgivings, how to help their team
- Fundamentals & the art of the possible.
- DevEx & productivity metrics: *suddenly **a lot of** people are interested in this*
- Creating an AI-First Culture
- Expectations of impact

## 1) Empowering teams

# Create the building blocks for developers to experiment.

- Seamless agent access to develop, build, release and operational tooling:
- Fast discovery and retrieval of knowledge, optimized for Agents.
- Understand and optimize (with AI) the outcomes of the small JTBD the developers do frequently.



**Lesson 2: AI is massive paradigm shift:** developers will take time to master AI skills through continual practise

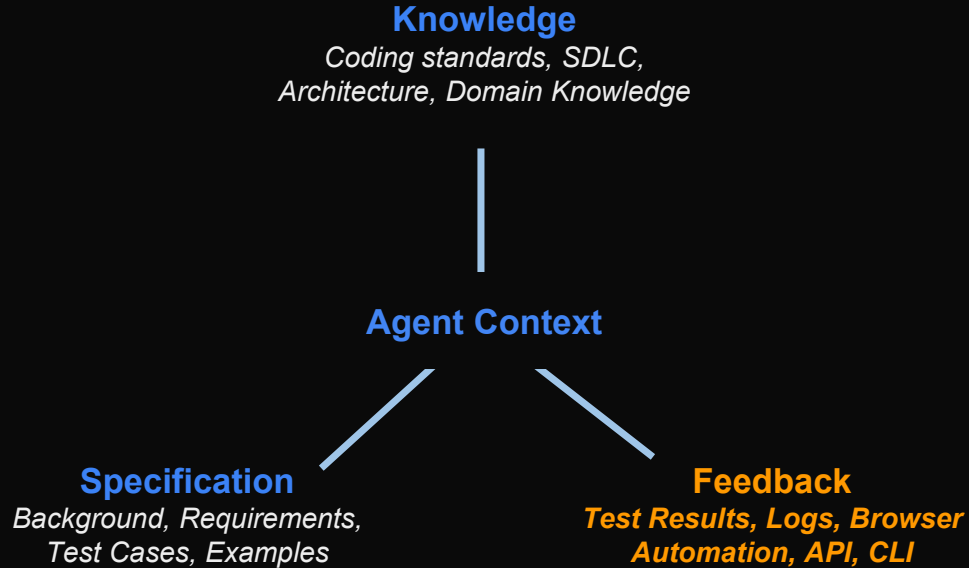
## 2) Mastering AI Skills

### Learn in the context of the team

- **The journey** is more interesting than demos: observing teammates failing and trying again.
- Create opportunities for developers to observe: Pair Programming and Mob Programming
- Leverage early adopters as champions, foster organic power user community

## 2) Mastering AI Skills

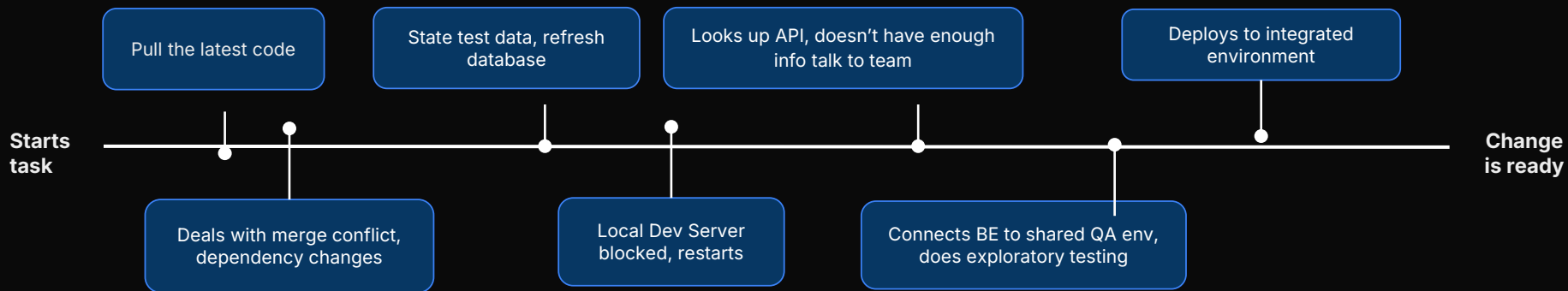
# Understanding context is a fundamental skill



## 2) Mastering AI Skills

# Antipattern: Hand feeding the Agent

Without a good harness. The developer is **hand feeding the agent**, providing perfect little morsels to the agent to consume. Instead we have to teach **the agent how to feed itself**



**Lesson 3: Coding isn't the only bottleneck:** apply AI to friction across the product value stream

### 3) Product Value Stream

## Two Customers

Your brownfield developer experience was built for humans, not agents.

Existing developer environments are **full of papercuts & bottlenecks** that developer's perform workarounds for.

Every gap a developer learned to live with becomes a **hurdle the agent must overcome.**

### 3) Product Value Stream

## AI Readiness Litmus Check

Take something from your backlog, ideally small and deterministic. Observe a developer and note what it takes to make the change production ready.

Tells us limitation in the teams setup and platform tools.

#### Record:

- **Steps and Time**
- **Developer Interventions** – everytime a developer has to do something
- **Agentic Friction** – when an agents complete an action, but not in the most efficient way

### 3) Product Value Stream

## AI Readiness Litmus Check - Extension

- Debug a problem
- Triaging an oncall page
- Onboarding: an agent working on a legacy codebase, that has not been worked on before by agents
- Doing a more full fledged feature, multi-PR, track from ideation

### 3) Product Value Stream

## Applying AI to common friction

#### DESIGN

Paring with the Agent the flesh out a idea

Writing documents in the required format for Org

#### BUILD

Agents trained on enterprise knowledge

Maintenance tasks e.g. upgrade dependency

#### RELEASE

Project Status reports semi-automated

Common builds failures are auto fixed

#### OPERATE

Generate Oncall reports

First Pass Root Causes Analysis for issues

**Lesson 4: AI Amplifies your existing bottlenecks:**  
Apply High-throughput engineering best practises

#### 4) High-throughput team patterns

Friction previously deprioritized is now a bottleneck



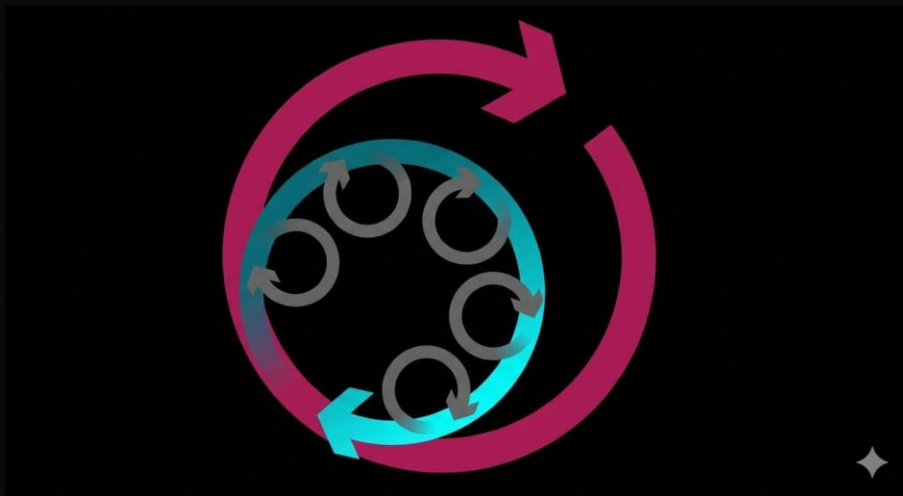
#### 4) High-throughput team patterns

## Patterns of High Throughput teams

- Continuous Deployment
- Small Atomic Changes
- Optimize onboarding and knowledge discovery for Agents
- Modularized codebases
- Agents can solve their own problems – debug, fix builds, exploratory tests.

#### 4) High-throughput team patterns

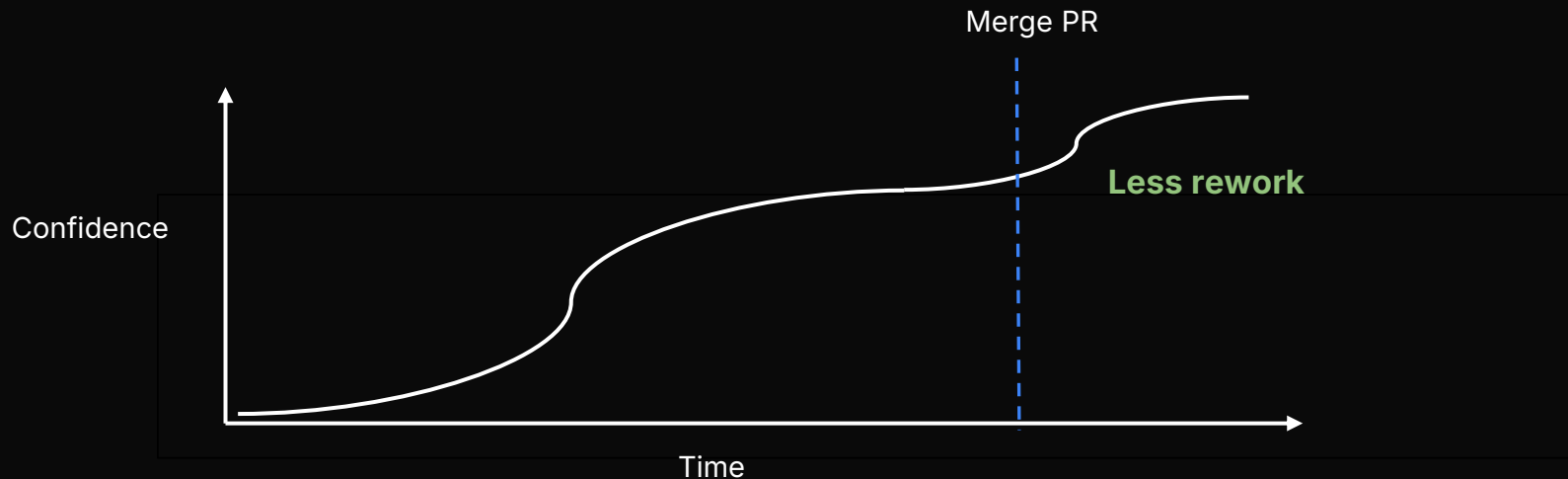
*The most effective teams can quickly check changes in a prod-like environment.*



<https://martinfowler.com/articles/developer-effectiveness.html>

#### 4) High-throughput team patterns

## High confidence before merging



After 20 years, agents might finally force us to shift left!

# Lessons

- 1) **Empower teams:** through trusted leaders, building blocks & community
- 2) **AI is massive paradigm shift:** developers will take time to master AI skills through continual practice
- 3) **Coding isn't the only bottleneck:** apply AI to friction across the product value stream
- 4) **AI Amplifies your existing bottlenecks:** Apply high-throughput engineering best practises