Architecting Systems to Architecting Agility

AI Transforming the SDLC

Part 6 of 7: How AI Helps Today & Tomorrow

AI Across the SDLC Now Future

Concrete Examples Evolving Fast

⚙ This isn't sci-fi tools hint at this future across the lifecycle.

⚙ Let's look at specific stages.

SDLC Clearer Requirements Faster

Reducing Ambiguity Rework

⚙ **Now** Transcription summarization (Otter Fireflies).

AI suggests features linked to **OKRs** drafts Epics/Stories (BDD) acceptance tests.

⚙ AI assistants flag ambiguity (Jira Azure DevOps).

⚙ **Future** AI actively participates flags issues generates artifacts reducing concept-to-validation time.

SDLC Faster Design Prototypes

From Text Sketch to Clickable Model

⚙ **Now** UI mockups from text/sketches (Uizard Galileo AI).

⚙ **Future** Architect describes system verbally -> AI generates C4 models API specs (OpenAPI) DB schemas IaC templates.

⚙ **Clickable prototypes** generated

instantly for stakeholder validation.

SDLC Coding Supercharged

Beyond Snippets Refactoring Testing

⚙ **Now** Code completion (GitHub Copilot).

Enhanced static analysis (SonarQube).

AI code review (CodeAnt).

⚙ **Future** AI handles most routine code **unit testing (TDD style!)**.

Expertly refactors legacy code reducing

technical debt.

Explains complex code.

SDLC Smarter Testing

Intelligent Strategies Edge Cases

⚙ **Now** Visual regression testing (Applitools Percy).

Test script generation suggestions.

⚙ **Future** AI comprehends requirements/architecture generates comprehensive plans/scripts.

Executes tests simulating diverse personas **edge cases**.

Insightful results analysis.

Higher quality faster cycles.

SDLC Easier Operations AIOps

From Root Cause to Prediction Remediation

⚙ **Now** Reduce alert fatigue accelerate root cause analysis (Datadog AI Dynatrace Davis).

⚙ **Future** AI moves towards **predictive maintenance**.

Automatically remediates common failures.

Dynamically optimizes cloud infra (cost performance).

Sophisticated security threat analysis.

The Fundamental Shift

AI Augmenting Human Capabilities

⚙ AI augments humans at each stage.

⚙ Automates repetitive or

complex-but-pattern-based tasks.

⚙ Frees professionals for creativity

critical thinking collaboration strategy.

The Promise Efficiency Focus

Leveraging Lean AI Techniques

⚙ Powered by increasingly efficient

accessible AI models.

⚙ Leveraging techniques like

fine-tuning RAG agentic workflows.

⚙ Promises to free professionals from

"**tool problems**".

Redirecting Brainpower

Towards Higher Value Activities

⚙ We can redirect collective brainpower towards higher-value activities.

⚙ Deep customer empathy creative solution design complex domains.

⚙ Strategic decision-making ethical application of technology.

Lesson

Crystallizing the Need for Change

⚙ Witnessing recurring challenges + seeing AI's potential...

⚙ Crystallized the decision to pivot focus.

Next

The Pivot Realized Next

⚙ How did this lead to Agile Coaching and AGILP?

⚙ Next Architecting Agility and the mission forward.

Series Index

Part 1: The Pivot

Access Part 1 PDF

Part 2: The Technologist's Vantage Point

Access Part 2 PDF

Part 3: Pattern 1 Complexity Requirements

Access Part 3 PDF

Part 4: Pattern 2 Efficiency Communication Tool Treadmill

Access Part 4 PDF

Part 5: Vision AI Catalyst Plant Manager Example

Access Part 5 PDF

Part 6: AI Transforming the SDLC (Current)

Access Part 6 PDF

Part 7: Architecting Agility The Mission

Access Part 7 PDF

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