

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.

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Architecting Agility...

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