Яндекс

dream → teamlead · March 28, 2026

AI Changes Engineering Culture

Research, processes, and the leader's role



Part 1

01

AI4SDLC Research 2025

How AI affects software development — meta-analysis and engineer survey

How We Looked at AI4SDLC

Research Design

Practices, culture, trust

- Where AI is already daily.
- Where adoption remains rare.
- How speed, quality, trust connect.
- What turns personal gains into team impact.

Research Meta-Analysis

Meta-Study: Data Sources

50+ studies, four source types

- Large-scale surveys of developers and tech leaders.
- Telemetry and product/engineering logs.
- Field experiments and controlled task studies.
- Internal corporate research and interviews.

AI4SDLC (2025)

Research Survey

Survey of engineers and tech leads

- Self-assessed productivity, quality, trust impact.
- AI usage frequency by SDLC task type.
- Variable sample size across questions.
- Descriptive analysis without causal conclusions.

Study Limitations

Research Limitations

How to read the results

- Sample reflects study context.
- Process changes can affect productivity.
- Industry metrics remain inconsistent.
- Novelty and adaptation skew trends.

Meta-study patterns

Recurring 2023–2025 research patterns

Default, but uneven

80%+ growth · 10h saved

Daily tool; gains depend on task context.

Coding outpaces delivery

-1–7% stability/throughput

Bottlenecks: review, tests, integration.

ROI through process

verify-first + platform

Trust and role depend on SDLC.

Engineer survey signals

Results Survey

AI4SDLC Survey 2025 signals

Everyday AI tool

58% often/always

Code generation is daily practice.

Local effect dominates

64% vs 32%

Productivity outpaces quality and team throughput.

Trust and expectations diverge

49% / 60%

Low trust; business expects impact.

AI Is Daily, but Not Everywhere

High-risk tasks still need humans

Mass scenarios

- 58% often use generation.
- Coding and debugging are core.

Rare scenarios

- 24% use AI for code review.
- 18% use AI for legacy tasks.

Personal Speed Is Not Delivery

Coding speed ≠ value

- 64% report productivity growth.
- Team effect needs mature process.
- DORA 2024: AI adoption reduced throughput.
- DORA 2025: throughput up; instability stayed.

Trust Requires Systemic Validation

Results Quality

Verify, don’t trust as engineering norm

Quality

- 32% note quality improvement.
- 14% report deterioration.
- Context and complexity determine the result.

Trust

- 49% don’t trust AI code.
- Only 11% trust it.
- Verification culture enables impact.

Bottleneck Moved to Delivery

Main takeaway for team leads

- Commit → prod is still long.
- Review, tests, releases limit flow.
- Documentation becomes context quality.
- Winners rebuild the work system.

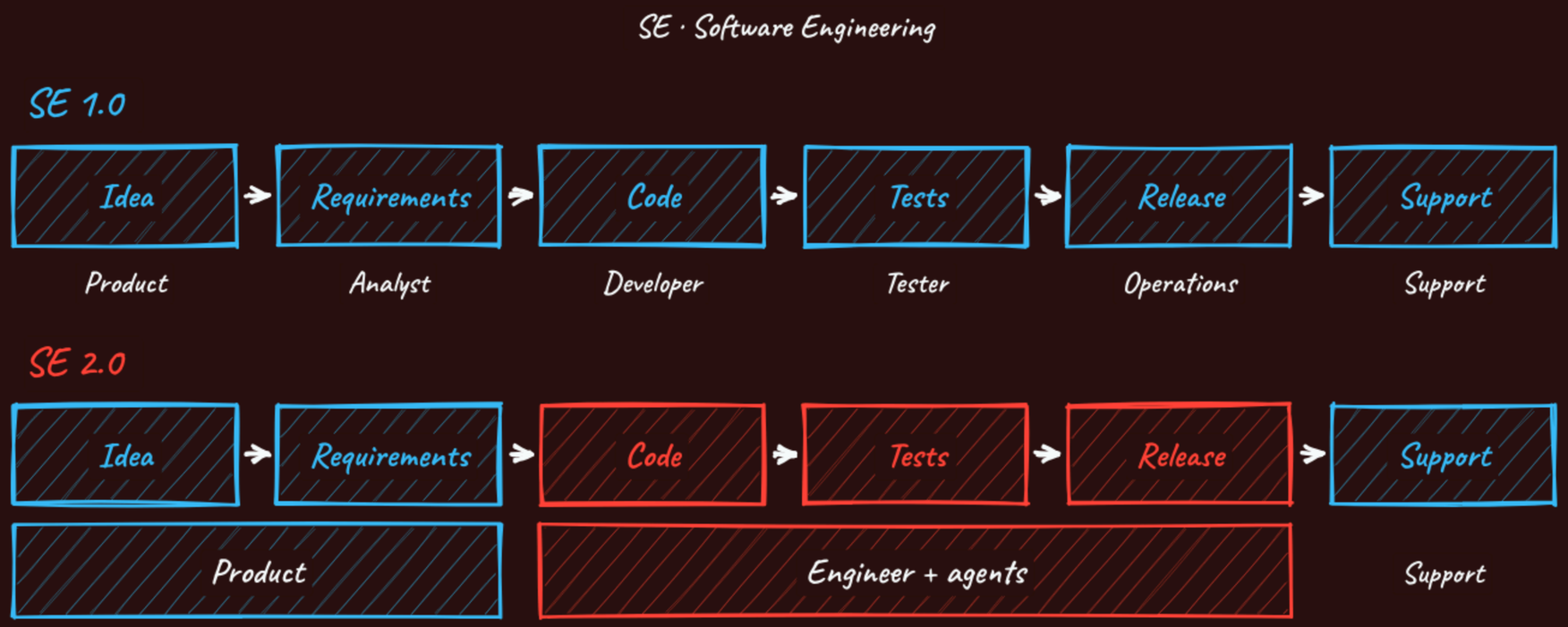
Part 2

02

Classic PDLC to AI-Native

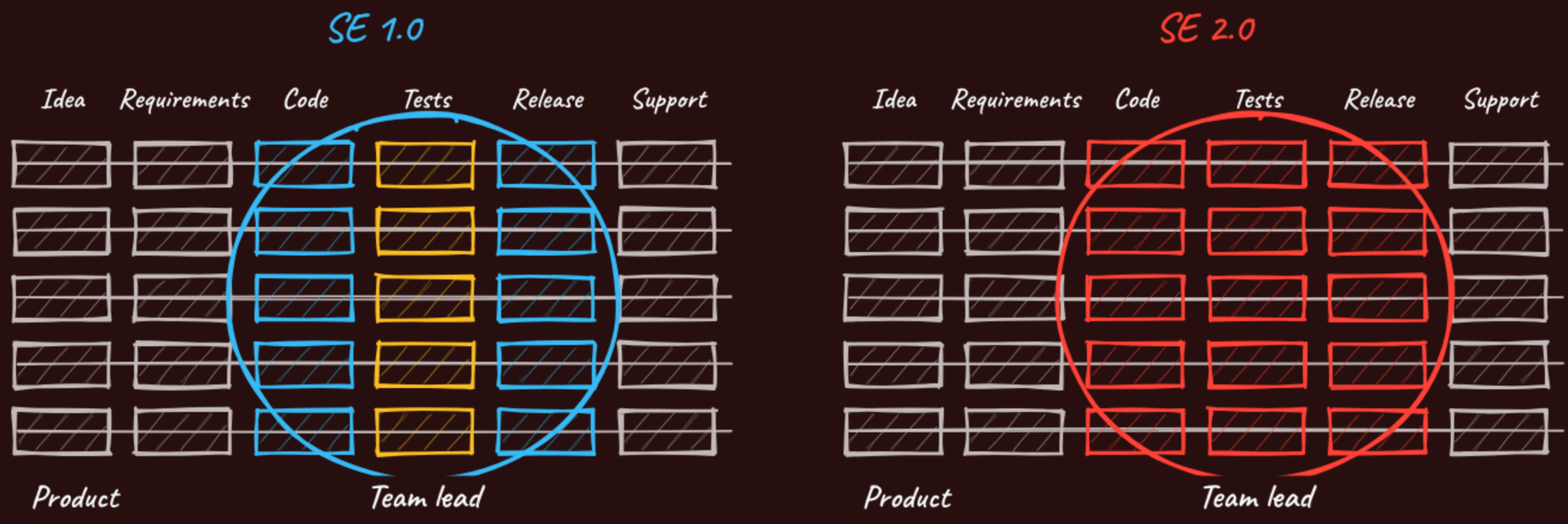
SE 1.0 → SE 2.0: not a tool swap, but a system rebuild

Engineers steer the whole process



Team leads design work with agents

SE · Software Engineering



Coordinates handoffs

Designs work with agents

Leaders Rebuild the Loop

Industry 2024-2026

Google, Meta, AWS, DORA

- Google: AI inside engineering loop.
- Meta: JIT tests for concrete diffs.
- AWS: roles compress into one cycle.
- DORA: payoff depends on platform.

SE 2.0 ≠ Free Acceleration

Reality

Why coding speedup slows delivery

- Weak version control → conflicts and rework.
- Noisy tests → instability.
- Agents open PRs faster.
- Foundation: branch protection, CI, signing.

SE 1.0 ↔ SE 2.0: practice exchange

Strategy

Systematic practice transfer between modes

SE 2.0 → frontier

Testing ground for orchestration, JIT tests, auto-docs.

SE 1.0 → foundation

Mature checkpoints, developer platform, safe delivery, operational reliability.

Practice transfer

1.0 gives guardrails; 2.0 returns automation.

Part 3

03

AI-Native Development to AI-Native Org

Next level of compression: not just SDLC changes, but the company model itself

Shift Org Design

Why AI-native organization comes next

Faster code; slower decisions and handoffs

Layers compress

After SDLC roles, organizational layers shrink too.

New bottleneck — decision latency

Approvals and handoffs become bottlenecks.

Leverage over headcount

Focus shifts to output per employee and platform.

Org Signals at Market Leaders

Signals Big Tech

Wider span, fewer levels, platform

+ Wider span

- Meta: AI org ratio reaches 1:50.
- Nvidia: ~50 CEO reports.
- Strong ICs.

+ Fewer levels

- Amazon: +15% IC/manager ratio.
- Microsoft, Google: AI-first tooling.
- Intel: faster execution, fewer layers.

Flattening Needs Platform Support

Without platform, flatness becomes chaos

- Need golden paths, policy, observability.
- Otherwise managers drown in exceptions.
- Ratios like 1:50 are not templates.
- Managers design human-agent loops.

Part 4

04

Team Lead Role Changes

New challenges for leaders in the AI-native process world

Team Lead Designs the Work System

Transformation

Not just task distribution

Before

- Distributed tasks.
- Controlled deadlines and quality.
- Hired for fixed roles.

Now

- Designs the human-agent loop.
- Adjusts quality gates.
- Builds diagnostics and review.

The Team Lead's New Work

Five responsibility areas

- Sets AI autonomy by risk.
- Bakes verification into definition of done.
- Manages context: ADR, runbooks, docs.
- Rebuilds metrics, policy, training.

Three Main Challenges for Team Leads

Risks in AI-native transition

Skill erosion

Coding gets easier; deep skills may degrade.

Illusion of speed

Local speed grows while delivery may stall.

Team trust

Verify must be a norm, not distrust.

Key Theses

What to take with you

- AI accelerates artifacts, not delivery.
- SE 2.0 amplifies engineering discipline.
- Team lead designs the human-agent system.
- Measure speed of value delivery.

- ↗ ai4sdlc-research.space · ↗ tellmeabout.tech

References and Materials

Sources References

AI adoption, DevEx, culture

- AI4SDLC Research 2025
- DORA AI + State of DevOps
- GitHub Octoverse + Copilot docs
- Stack Overflow, JetBrains, Atlassian

Yandex

Thank You!

If you want to explore the materials mentioned in the talk, head to the ”Book Cube” channel — all links are there

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