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AI accelerated coding

Evolving skills in the age of AI-assisted coding. 12/12/25 @10:30 AM

Coding languages evolution

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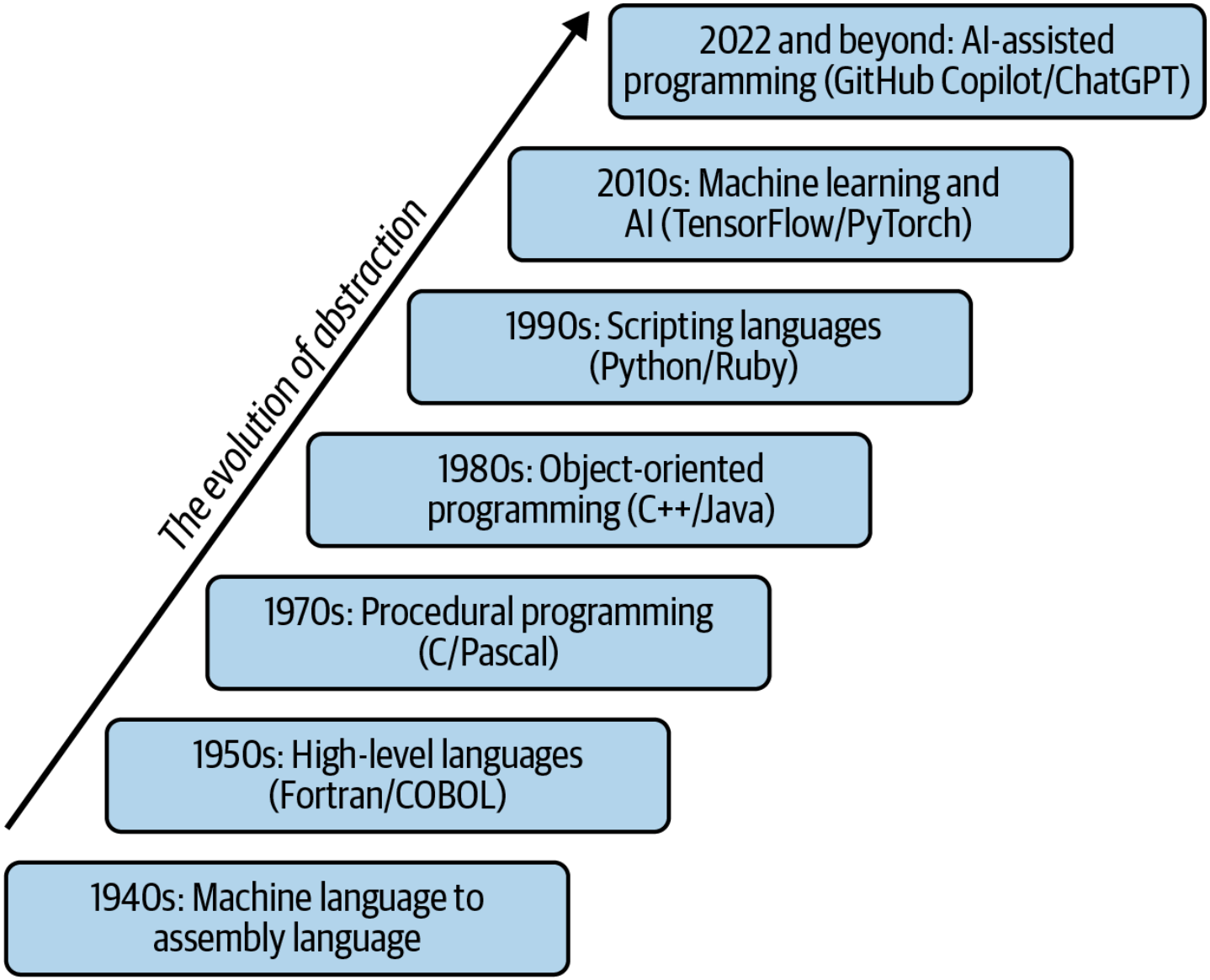

Types of AI

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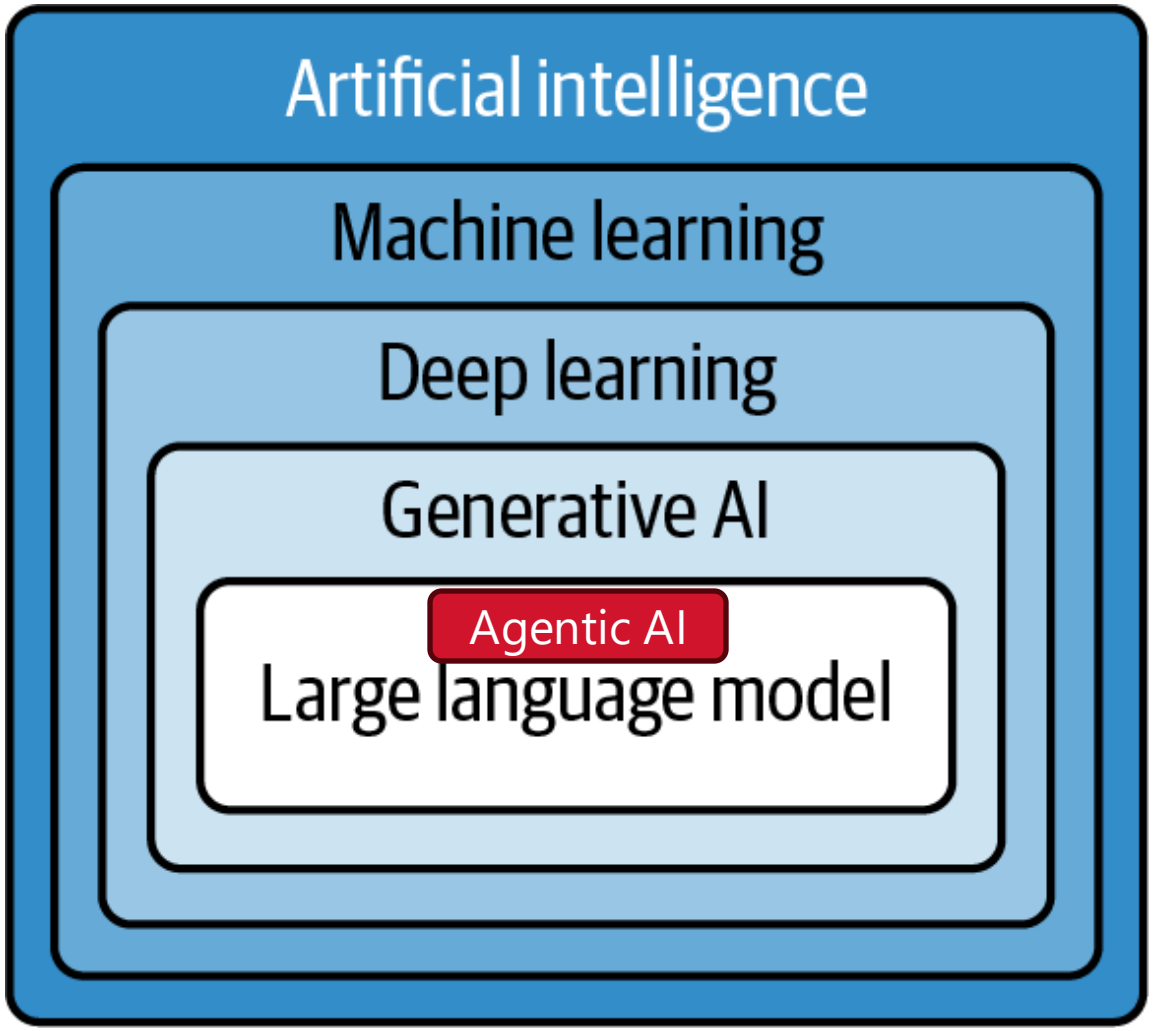

Measuring developers' productivity

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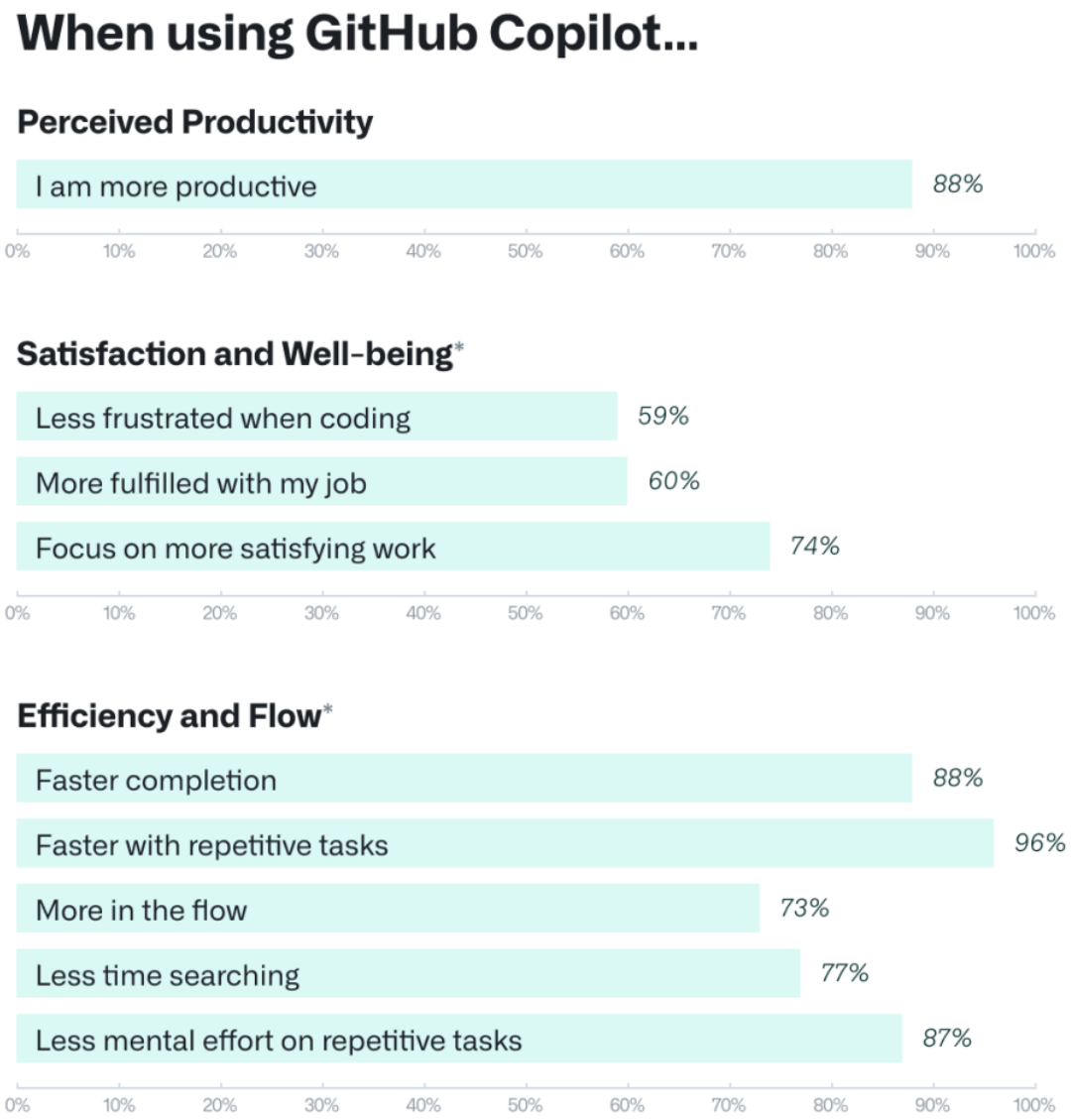
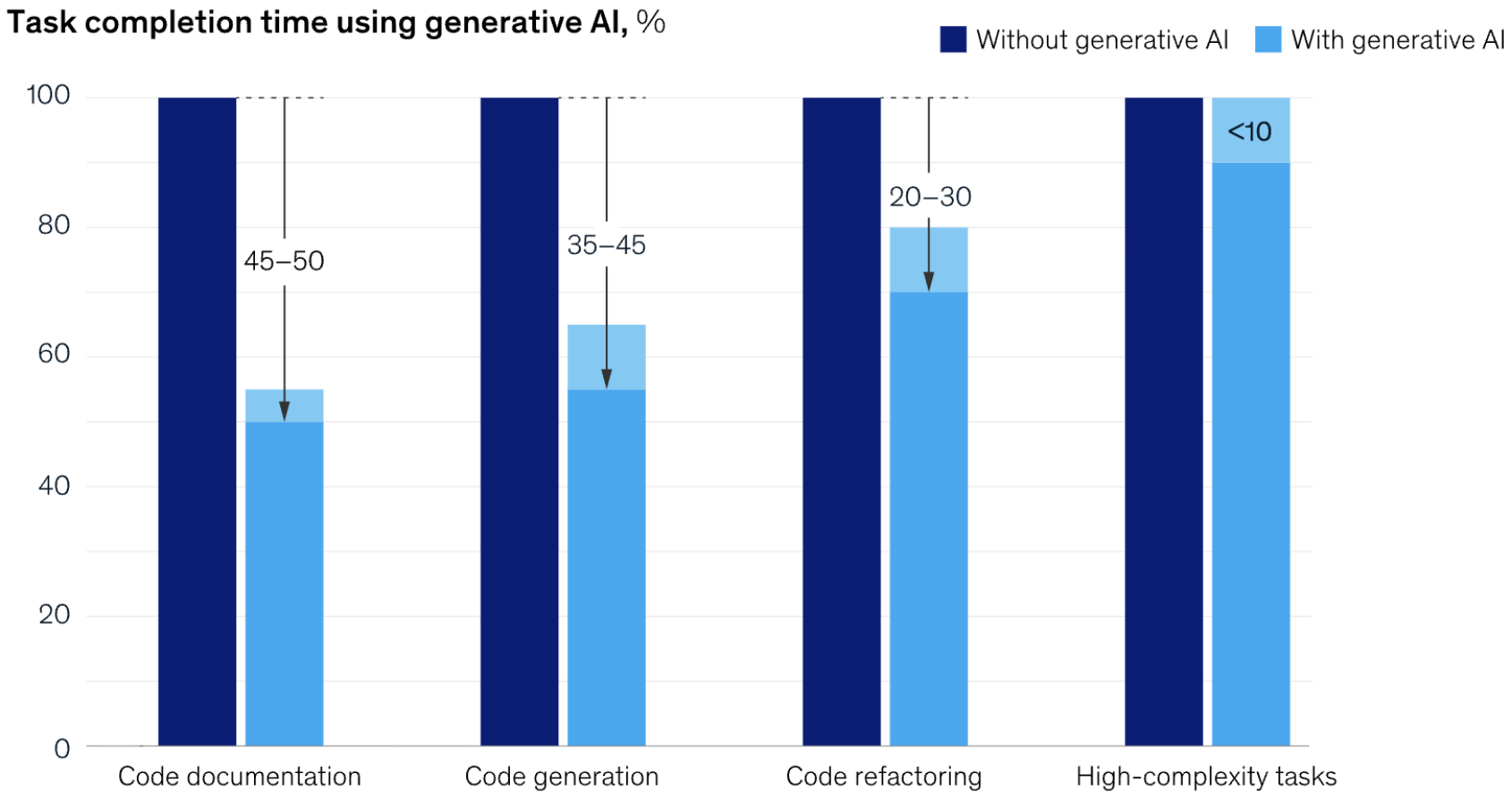


Measuring developers' productivity



https://www.mckinsey.com/capabilities/tech-and-ai/our-insights/unleashing-developer-productivity-with-generative-ai

Coding with AI Book

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1. Techniques & technologies
    1. How coding benefits from AI
    2. AI coding tools
    3. Comparing to coding w chatbots
2. Using AI to write code
    1. From plan to prototype
    2. Formatting & improving your code
    3. Finding & eliminating bugs
    4. Translating & optimizing code
3. Testing, Documenting, Maintaining your code
    1. Testing your code
    2. Documenting your code
    3. Maintaining your code

Coding with AI Book

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1. Techniques & technologies
    1. How coding benefits from AI
        1. Reducing boring tasks
        2. Helping with syntax
        3. Linting w AI
        4. Using AI as tutor
        5. Pairing up with AI

is AI valuable for productivity ?

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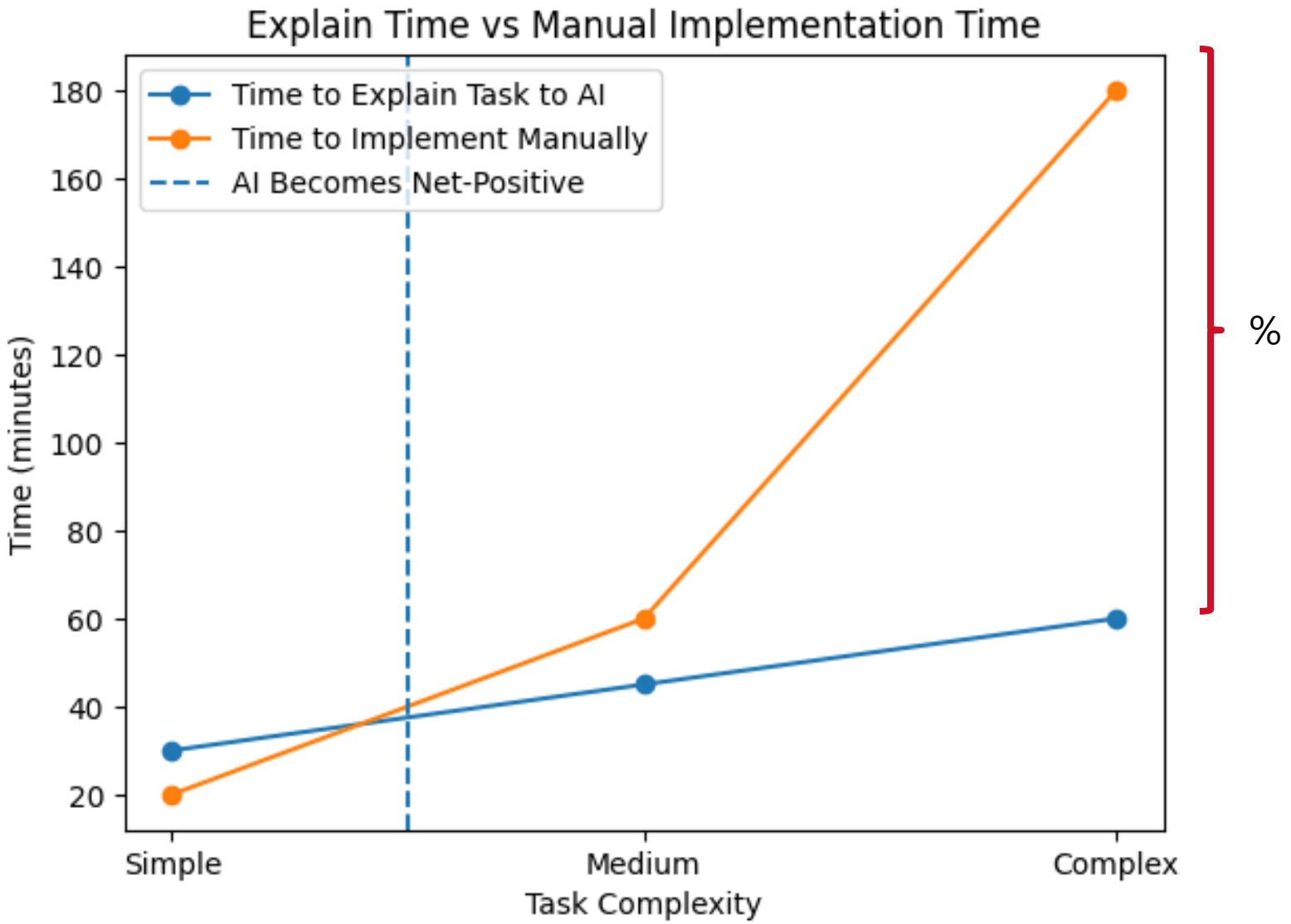

How about code quality?

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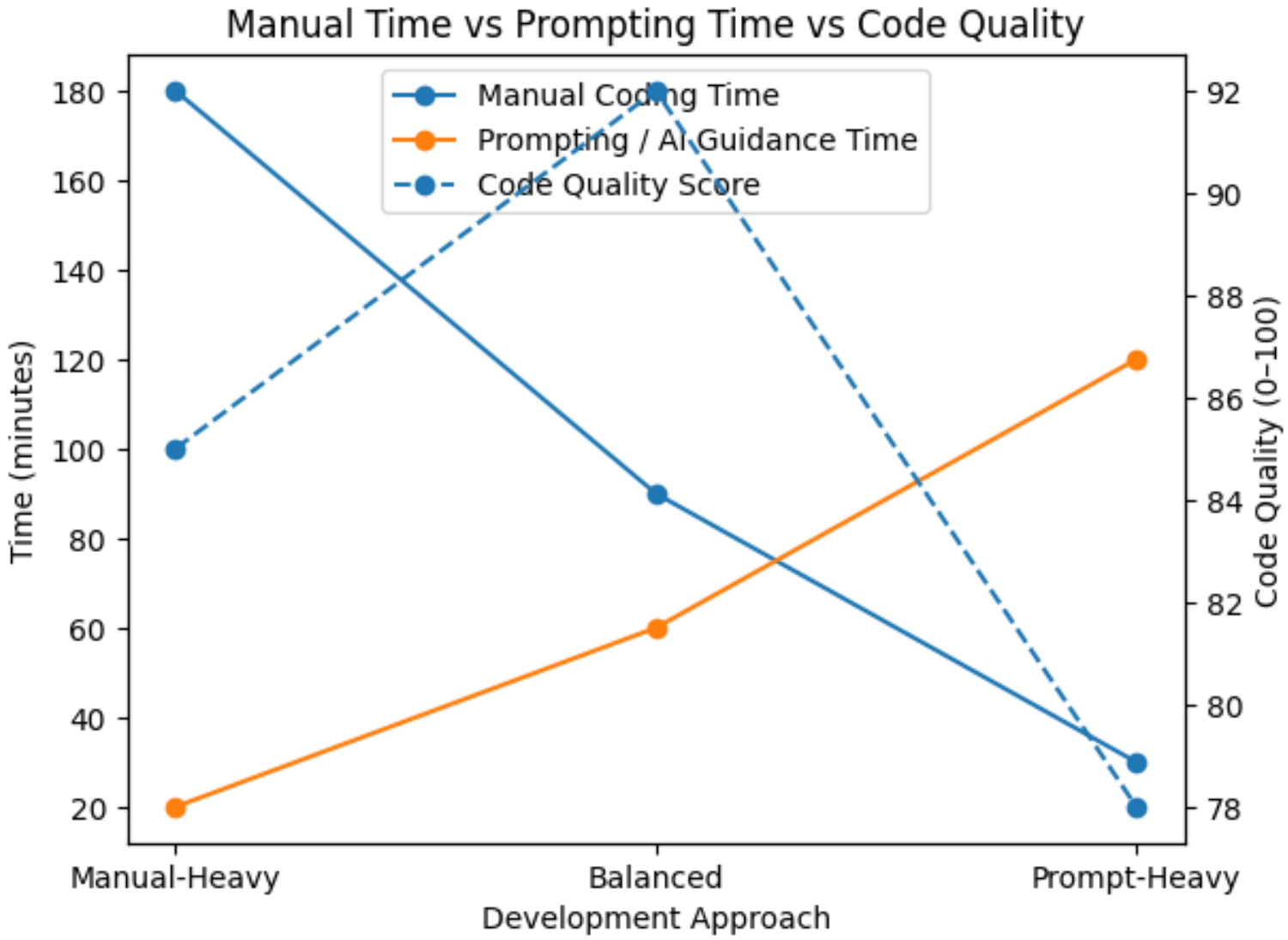

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When Is AI-Assisted Coding Worth It?

- Compare time to explain a task vs time to implement manually
- For simple tasks, explaining may take longer than coding
- For complex tasks, AI delivers clear time savings

Junior vs Senior Developers: Where AI Helps Most

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- Senior developers are faster even without AI
- Junior developers gain earlier benefits from AI assistance
- AI compresses experience gaps but does not replace expertise

Does More Time = Better Code Quality?

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More manual time does not automatically improve quality

Prompt-heavy approaches can reduce code quality

Best results come from balanced human + AI collaboration

Why AI is valuable for learning

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But programming isn’t solved

Skills that become more important

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1. Problem decomposition
2. Specification writing
3. Code reading
4. Testing & Validation
5. Debugging with insight

Skills that become less critical

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1. Memorizing syntax
2. Recalling obscure library semantics
3. Low-level boiler writing

The new learning goal

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The big picture

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Balancing short-term velocity & long-term engineering

Short-term velocity

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Long-term engineering

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Sustainable acceleration model

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Practical guidelines

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Takeaways

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References

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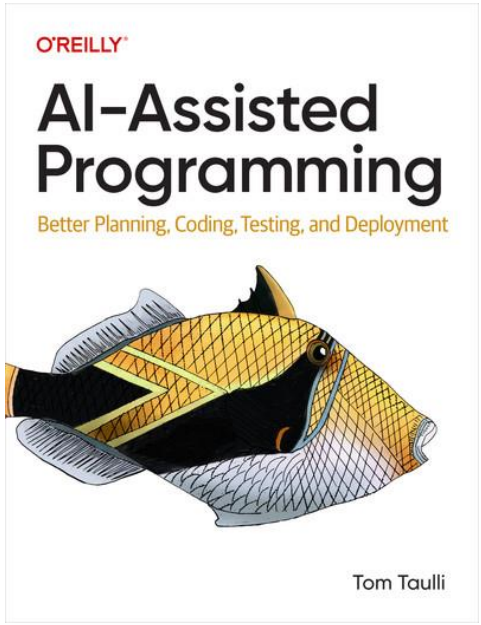

https://learning.oreilly.com/library/view/ai-assisted-programming/9781098164553/

Backup

Glossary

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- PSP: Print Service Provider
- O2D LCP: Order-to-Delivery Large Commercial Print Clients
- MIS: Management Information System
- SDK: Software Development Kit

*AI.