

GitHub Co-Pilot

An impulsive and erratic driver?

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Basis for this talk

Year 2 Module - Autumn 2022

- Spring Boot development
- Only students had Co-Pilot

Year 1 Module - Spring 2023

- Module runs alongside module on Java programming
- Unit testing +
- All had Co-Pilot
- Used in class walkthroughs

Co-Pilot with Spring Boot

- Spring Boot is a large and “opinionated” Java framework
- Students work in teams to deliver a project to an external client
- Whole new set of issues to assist with in project sessions
- Random, version-specific dependencies introduced
- Bean-generating methods added (Bean = component)
- Breaking the “convention over configuration” principle
- Learning : partial solutions in the training data + limited experience in the students + non-standard calling pattern => big issues, but also some good learning opportunities

Co-Pilot with Java/JUnit

- Teaching via a series of Kata-like exercises (e.g. Yahtzee)
- Assessment via Monopoly-**like** game
- For Yahtzee solution, long blocks of if-then-else. Not great code.
- Focus switches to **reading & evaluating** code
 - Hmm – can Year 1 students do that?
- Aside, Chat GPT can take a lot from a word.
 - “**Monopoly**-like” led to CommunityChest.java
- Learning: The right task can show Co-Pilot in a good light, but can also show its weaknesses. Taking time to highlight those weaknesses could be a key learning opportunity, but are students aware enough to do that themselves?

Current (random) thoughts...

Massive focus
on AI and AI
(Academic
Integrity)

JISC models with
AVOID, OUTRUN,
EMBRACE

We probably
have to
embrace, but...

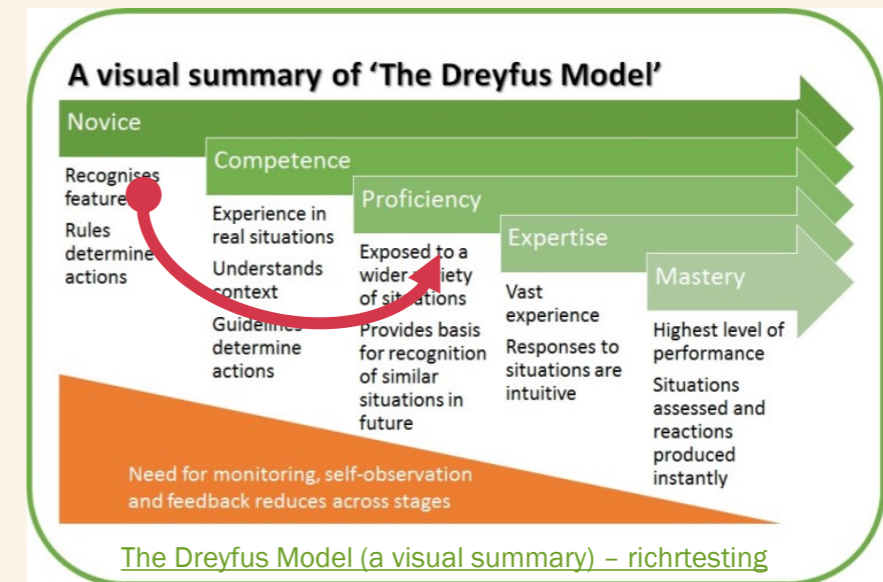
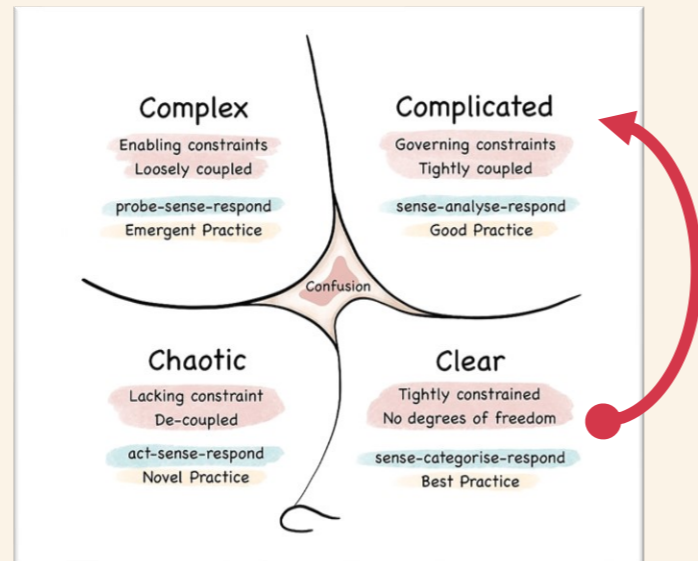
Should students
pro-actively
avoid?

Leave with a question...

- Can students learn to embrace/question/whisper to/evaluate AI if they haven't built the mental foundations?



When would you trust someone to use the autopilot?



Learn AI-Assisted Python Programming With GitHub Copilot and ChatGPT

Daniel Zingaro and Leo Porter
MEAP began May 2023 · Publication in Early 2024 (estimated)
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Thanks

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