

Pair Programming

CSM2020 (18/19)

Department of
Computer Science

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Aims and Objectives

- Introduction to Pair Programming
- Techniques
- Troubleshooting
- When NOT to pair

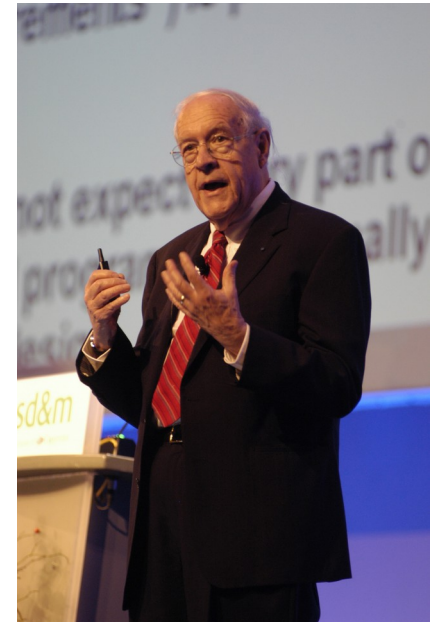
What is Pair Programming?

- Two programmers code together at one workstation
 - Driver: writing the code
 - Observer/Navigator: reviews and critiques, not mentoring!
- Roles switch periodically
- Programming out loud



Why pairing

- Promotes collaboration
- Allows to back up each other
- Improves code quality
- Facilitates transfer of knowledge
- Shares responsibility and pressure
- Enhances trust between team members
- Is fun (when it's done correctly)



Pairing techniques

- Expert-expert, novice-expert, novice-novice
- Driver/navigator pairing
- Strong style pairing (back-seat navigator)
- Tour
- Ping-pong
- Distributed
- Cross-functional

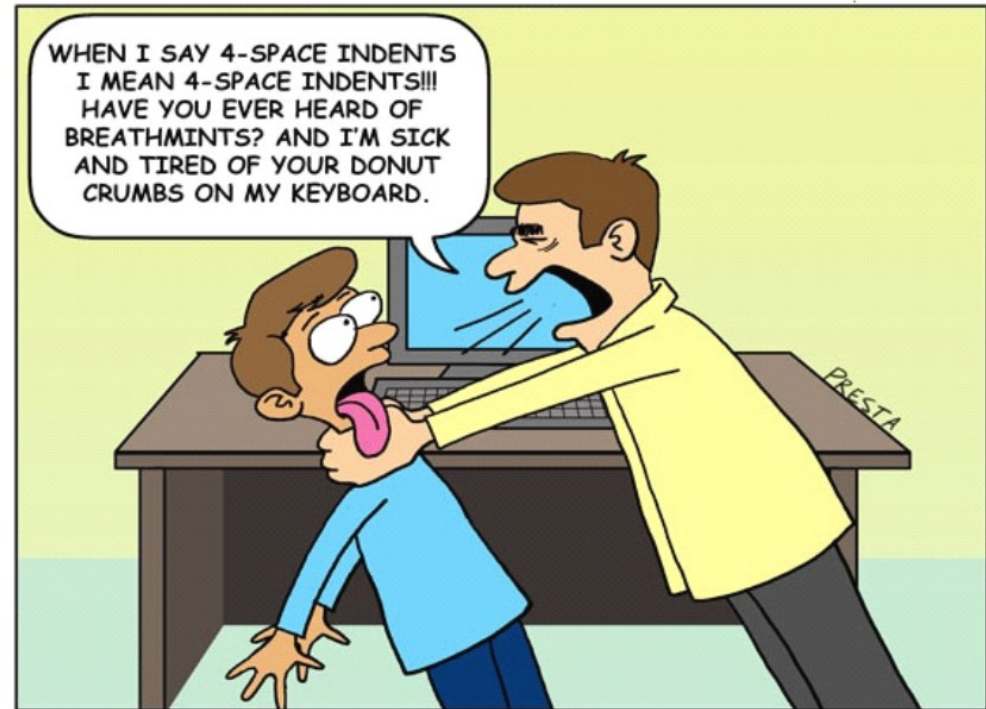
Why does it work?

- Continuous code review
- Consistent code practices
- Better diffusion of knowledge among the team
- Reduction in coordination, training costs
- Improved resiliency
- Masks distractions



Troubleshooting

- Time constraints
- Intensive process
- Personalities and ego



The dark side of pair programming.

Troubleshooting

- Show discipline, believe in it
- Take breaks
- Avoid silent moments
- Do not force it

When NOT to pair program

- Pair only for implementation, not for research/design
- Avoid for trivial tasks → waste of resources
- When you hate each other
- Someone is a bad planner

Summary

- Introduced Pair Programming
- Discussed pairing techniques
- Gave some troubleshooting advice

Pair programming is sometimes used as a recruitment tool.

Can you guess why?