

Title: The role of AI coding assistants: revisiting the need for literate programming in computer and data science

① Can I understand the title?

Rare word: "Literate programming"
→ literateprogramming.com

② 'Who's the author?

→ Lyon.edu/marcus-birkenkrahe

- PhD physics
- editorial activity data science
- 5/12 references are his own
- conference contribution (accepted abstract) - international INTED'24

When an author quotes himself a lot, you must exercise caution — check if references are peer-reviewed

[most of this author's references are talks given recently to industry or academics.]

③ Abstract: is it complete?

IMRAD? Yes:

I: impact of AI on education

M: qualitative, no systematic data collection

R: highlight issues, suggest remedy

D: caution. Limitations mentioned.

+ Keywords: ChatGPT, LLMs

④ References: use litmap to establish network of citations (if any).

- quality (author, place)
- date (recent or not)

→ mix, at lower end of validity:

- blog post
 - conference
 - preprints
- } probably OK
given the topic
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⑤ First reading

- Impression - informal, personal (1st person POV)
- Some sweeping generalizations and put-downs
- Poetic rather than objective
- Emotional with rational aspects

⑥ What do I like best and what do I not like at all?

- Best: generated some primary data. Psychology of humans rather than assessment of machines.
 - Worst: the methodology seems half-arsed. The author thought he should write something but did not really have that much to say.
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⑦ What's the main message (in your own words):

"Programming continues to be hard," and to learn it, you need 'hard' methods (like literate programming) and humans, who challenge you.

⑧ Can I use this for anything?
(Relevance & lasting value)

- I can use it for my planned book on literate programming - will cite it
 - Curious to check some of the author's use cases myself (p. 2)
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⑨ Final verdict: interesting, if only because of the unconventional style, but also forgettable.

⑩ What would I have done differently?

- Collect data
- Try to quantify the arguments
- Provide more specific examples
- Deepen methodology and references.