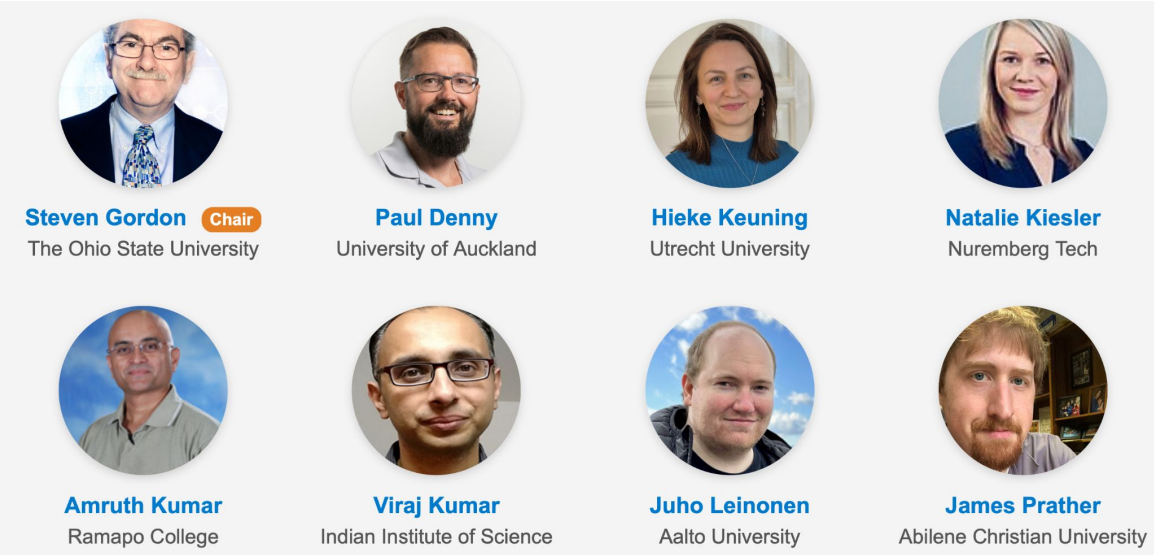
ACM Education Advisory Committee Task Force Members



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The ACM Education Advisory Committee's Task Force on Generative AI (GenAI) and Programming Assessment: established to understand how GenAI and GenAI coding tools are reshaping programming instruction and assessment and to guide the computing education community through this transition.

ACM Generative AI Task Force Special Session

Teaching with Generative AI: Tools You Can Use Today

Today's moderators:

Paul Denny & Juho Leinonen

p.denny@auckland.ac.nz & juho.2.leinonen@aalto.fi

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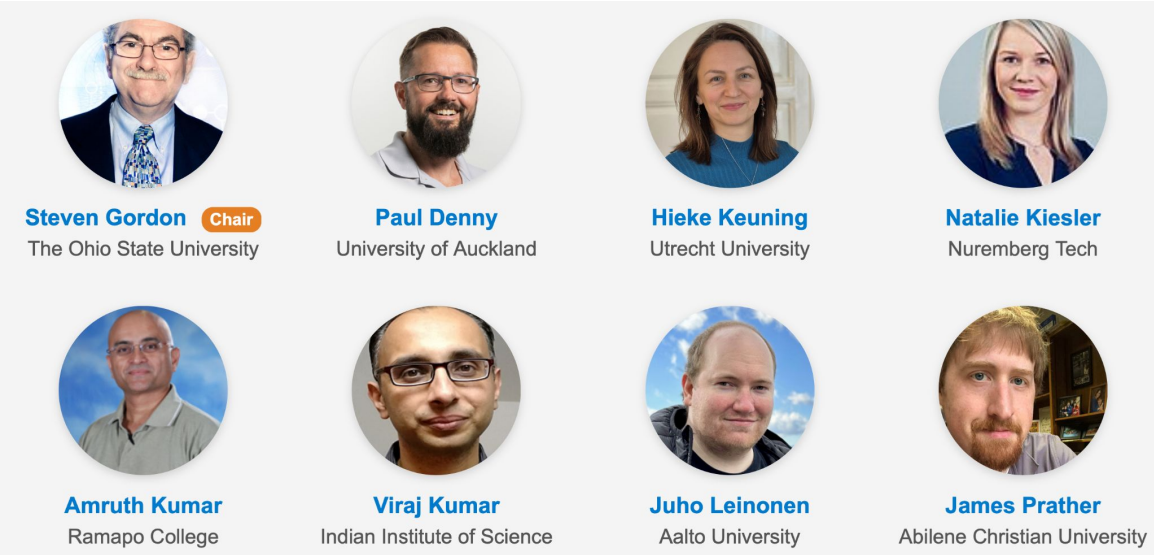

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Four Connected Goals

(1) a global survey of over 700 educators on policies, concerns, perceived impacts on students' skills, and changes to teaching and assessment

(2) an analysis of concrete course-level adaptations, including shifts toward code comprehension, in-person and oral assessment, and explicit AI literacy

(3) a curated collection of instructor-contributed approaches and tools, made available via a public website

(4) a hands-on special session at SIGCSE 2026 showcasing exemplar tools and practices.

Survey on Impacts of GenAI on Programming Instruction

- Approximately 500 complete responses
- 55% from North America, 26% from Europe, 14% Asia, remainder from other continents
- Responses by institution type
  - 240 from graduate degree granting institutions
  - 62 from bachelor’s degree granting institutions
  - 23 from associate degree granting institutions
  - 15 from other

Barriers to Integrating GenAI

Table 3: Barriers that instructors (n=514) have faced with integrating GenAI in their courses. Instructors could select multiple options.

Barrier	Count
Lack of examples of best practices	249 (48%)
Lack of expertise in GenAI	146 (28%)
Have not faced any barriers	123 (24%)
Do not believe there is a need to integrate GenAI	101 (20%)
Curricular requirements	88 (17%)
Limitations based on GenAI departmental or institutional policies	53 (10%)
Other	*103 (20%)*

Need for Professional Development

- 74% indicated need for training on best practices to integrate GenAI into instruction
- 66% training on how to revise assessment when using GenAI
- 39% training on how GenAI works
- 12% don’t want to adapt my courses

Changing Skills

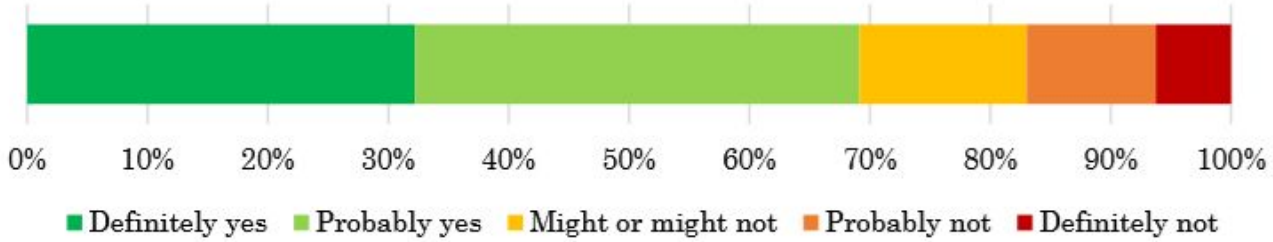


Figure 1: The extent to which instructors believe the skills to create software have changed because of GenAI.

Focus on code comprehension

Critical evaluation of AI output

David, Rahad

Instructors’ Concerns

Concern	Count
Increased dependency on technology to complete coursework	444 (87%)
Increased cases of cheating or plagiarism	367 (72%)
Misinformation	269 (53%)
Privacy concerns	142 (28%)
Other	126 (25%)

Sverrir, Mark

How Students Use GenAI

As a Learning Aid:

- Learning/Tutoring Support (most common response)
  - using AI to understand concepts, get explanations, and learn

Anastasiia

AI as a Planning Aid:

- Prototyping/Starting Points (most common response)
  - using AI to create initial frameworks or templates

Kristin

More Information

Task force website

bit.ly/sigcse26

Task force final report

bit.ly/genai-taskforce

Let’s welcome our presenters!

Mark Liffiton: CodeHelp

Kristin Stephens-Martinez: Brainstorming with an LLM

Rahad Arman Nabid: Autosuggestion Quiz

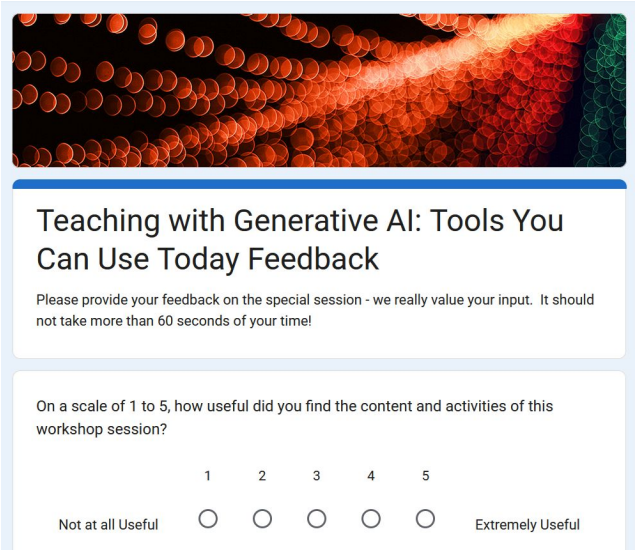
Sverrir Thorgeirsson: Ente

Anastasiia Birillo: ANVIL

David H. Smith IV: Purplex

Thank you for attending!

(1) Please provide ‘60 second’ feedback: bit.ly/sigcse26feedback



Teaching with Generative AI: Tools You Can Use Today Feedback

Please provide your feedback on the special session - we really value your input. It should not take more than 60 seconds of your time!

On a scale of 1 to 5, how useful did you find the content and activities of this workshop session?

	1	2	3	4	5	
Not at all Useful	○	○	○	○	○	Extremely Useful

bit.ly/sigcse26feedback

Thank you for attending!

(1) Please provide ‘60 second’ feedback: bit.ly/sigcse26feedback

(2) Please share your own approaches/tools. Submit via “Approaches” link on the ACM Taskforce website

bit.ly/sigcse26

CRA AI Education Initiatives

LEVELING UP AI UNDERGRADUATE EDUCATION

- 2025 CRA Summit
- Google GenAI (use) in CS Education Consortium
- CRA AI Education Fellows
- NSF LEVEL UP AI Roundtables
- NSF LEVEL UP AI Workshops
- NAIRR AI EDU Research Coordination Network
- NAIRR Pilot Roundtables & Conferences
- Community Definition of Computing & AI

The GenAI in CS Education Consortium

GenAI in CS Education
CONSORTIUM

Workshop on GenAI in CS Education: Research and Practice – San Diego, CA – March 16-17th

Learn more: https://bit.ly/WorkshopGenAICSed

Learn more about the Consortium:

www.teachCSwithAI.org

Materials for CS1, CS2, Algorithms, SWE, Product Management, and Large Code Bases courses:

https://www.teachcswithai.org/courses

Link to these slides: bit.ly/genai-slides

Link to handout: bit.ly/genai-cs-handout

Google