

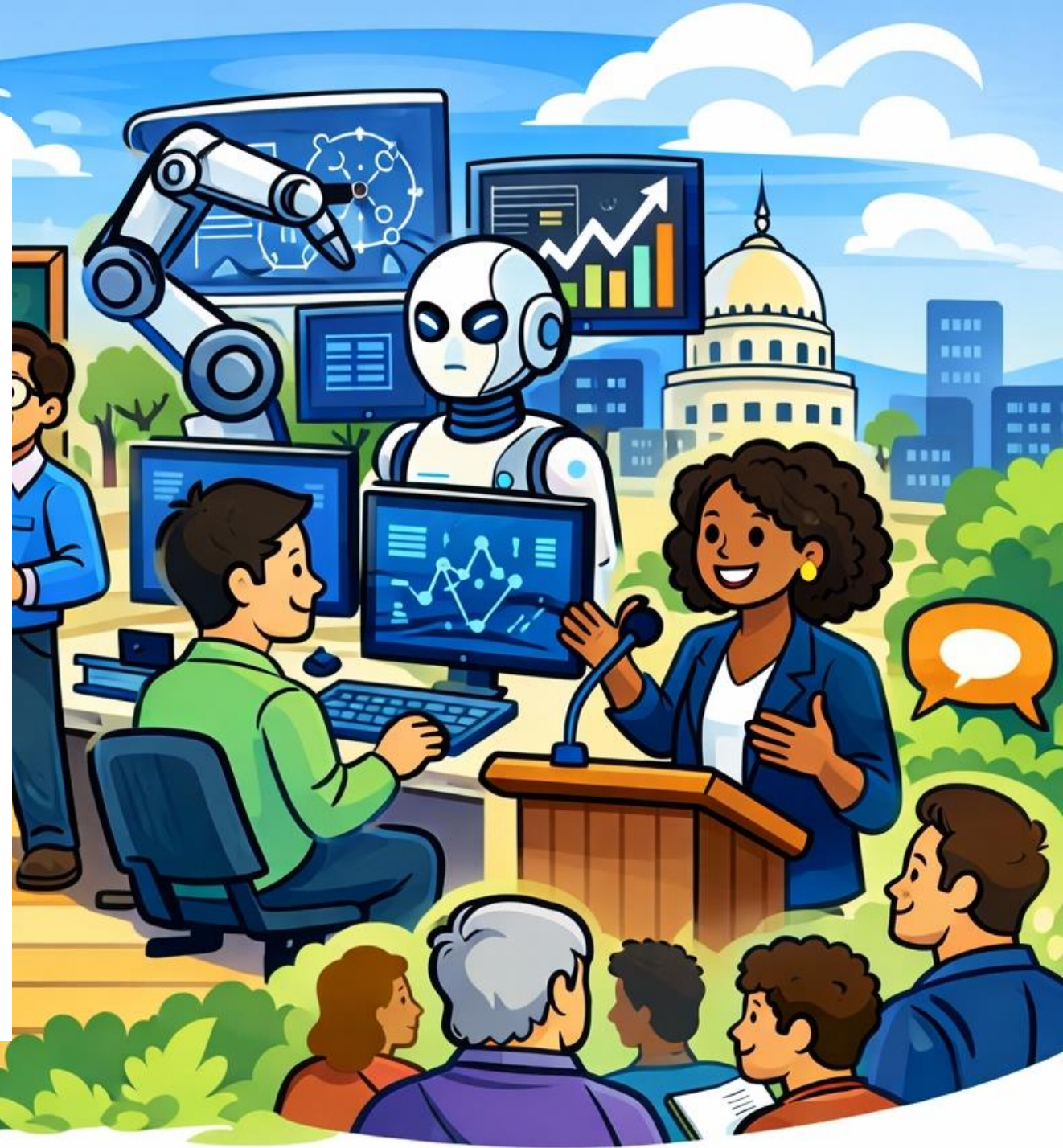
Artificial Intelligence in Mathematics & Science Classrooms

Kick-off meeting for our new research-practitioner network

Jesper Bruun, Department of Science Education, Niels Bohr Building 23 January 2026



UNIVERSITY OF COPENHAGEN



Agenda

13:00 – 13:15

Welcome (Jesper Bruun)

13:15 – 13:45

Discussion: How can teachers use AI in connection with teaching and learning

13:45 – 14:00

Break with cake

14:00 – 14:30

Talk: Trends in Research on AI in Science Education (Tor Ole Bigdon Odden, Oslo University)

14:30 – 14:55

Discussion: Possible lessons, materials and activities to develop and/or try out

14:55 – 15:00

About next meeting

15:00 – ??

Optional stay for bubbles

What is this network?

- 2-year practice-oriented research network about meaningful use of AI
- Part of IND's Research Programme for Upper Secondary Teaching in Science and Mathematics
- For researchers, practitioners – and students!
- A community of people who are curious about AI in teaching and learning
- A hub that can connect insights from many projects

Why this network now?



Teachers and students are developing ways to use AI – maybe blindly?



But we actually know things about teaching and learning!



What can these technologies do in terms of assisting learning processes?



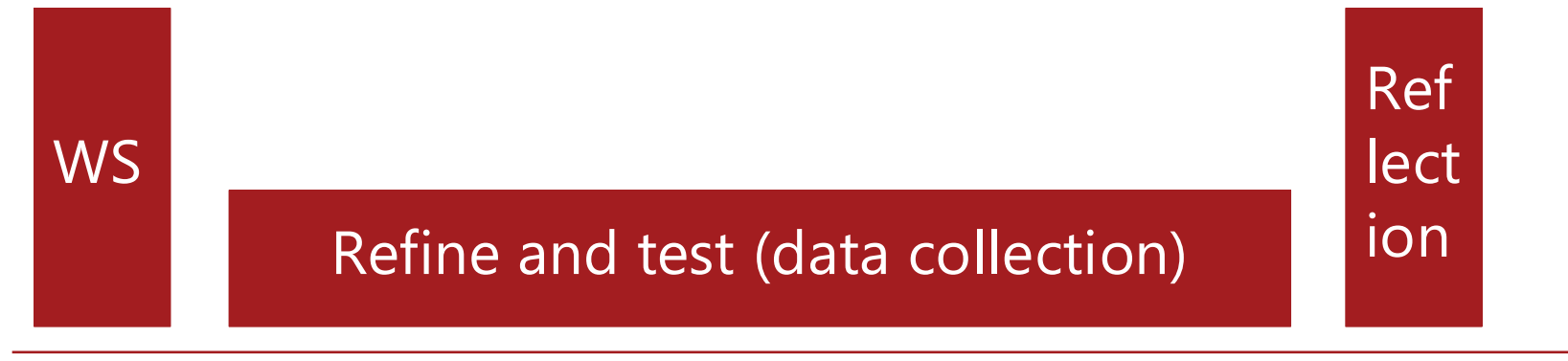
What can't they do – and where might they be detrimental?



We need to test in many different ways – and somehow document and talk about this

Core activities

- Collaboration through workshops
- Development and testing materials in classrooms: Danish – and maybe other Nordic classrooms?



- Continuous monitoring and discussion of AI capabilities in online meetings
- Participation in public discourse: LinkedIn, news outlets, policy discussions
- Research publications: International as well as national outlets

Who is involved

- People on the AIMSC mailing list will get the opportunities that this network will produce!
- These are:
 - Teachers in upper secondary schools – Mostly Danish for now, but expecting to recruit teachers from other Nordic countries
 - Science education researchers from the different disciplines (bio, chem, geo, math, phys, etc.) as well as “generalists”
 - Educational developers – from industry
 - Students – this is a much needed perspective, which may require some thought to include

Year 1: Building, testing, sharing

Spring semester 2026

Recruitment via AIMSC mailing list+

Workshop 1 (April 2026)

Small-scale trials (inviting students and teachers to university)

Reflections and write-up for research publication (likely just before the summer holidays)

Monthly meetings on AI capabilities (trends, new functionalities, etc.)

Fall semester 2026

Recruitment via AIMSC mailing list+

Workshop 2 (likely in Sep 2026)

Classroom trials (visiting researchers, surveys, teacher generated notes)

Public seminar and research publication (likely in Nov 2026)

Monthly meetings on AI capabilities (trends, new functionalities, etc.)

Year 2: Refining, sharing, publications

Spring semester 2027

Possible recruitment of students

Workshop 3: discussing outcomes of trials (likely in April 2027)

Analysis of data

Draft publication for international paper on empirical experiences with AI implemenations

Monthly meetings on AI capabilities (trends, new functionalities, etc.)

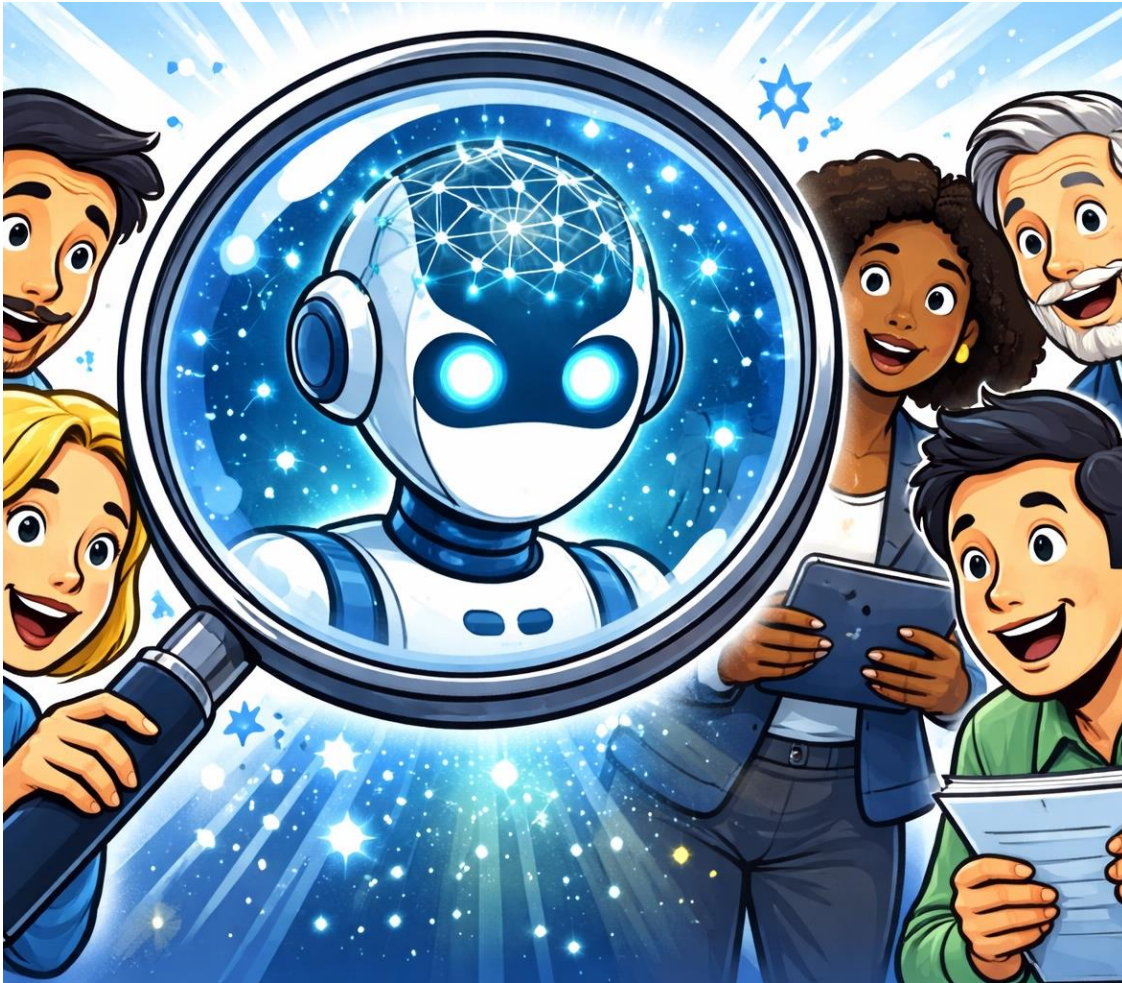
Fall semester 2027

Nordic symposium on AI in upper secondary science and mathematics teaching.
Probably Oct 2027.

Funding applications

"Final" assessment

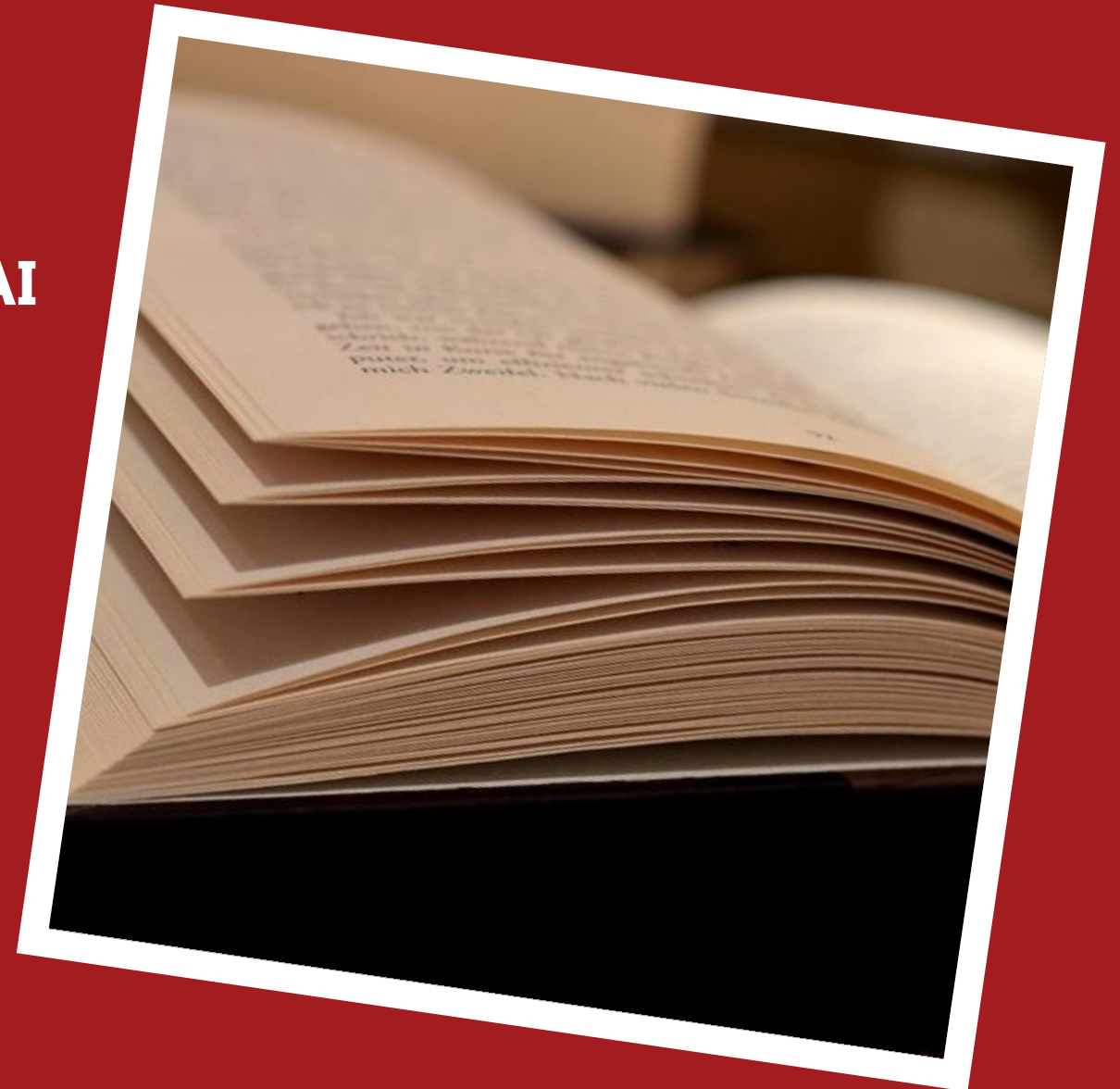
Monitoring AI Capabilities



- Monthly meetings where we showcase and discuss
- New ways that teachers or students have used AI
- New functionalities in commercial or non-commercial products
- Research publications.
- Benchmarks
- ...
- Before each meeting, an AI-related "thing" will be sent out to read, test or otherwise engage with.
- At the meeting we then discuss this "thing".

Outputs and impacts

- Documented teaching and learning activities that involve AI
- Data on student engagement/learning in connection with these activities
- Public dissemination of insights (to teachers, students, other stakeholders)
- Research publications



NOW, IT'S YOUR TURN!

- In groups:
- Given your teaching context, where could AI meaningfully support learning without replacing students' disciplinary work?
- In other words: How can you use AI in connection with teaching and learning?
- <https://padlet.com/ucph/aimsc>

Now: Cake!

Then: Tor Ole Bigdon Odden

Possible lessons, materials and activities

- In groups
- What are the lessons, materials and activities that you would like to see tested?
- Or
- What would you like to learn by being part of this network?

<https://padlet.com/ucph/aimsc>

What's next

We will use the aimsc mailing list to communicate internally – sign up if you want to be part of it.

We will set up a web-site for the network where we will share resources

Next AI-capabilities meeting: 18/02 2026

Development workshop: April 2026 at NBB (need at least 4 teachers)

Small-scale tests with invited students (April – June 2026)

If possible: individual classroom tests with self-reports.

Now: Bubbles
And weekend!