



INSPIRATION CATALOGUE: AI

in exams, teaching & learning

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The Challenge of AI to Traditional Exam Formats and Teaching

Artificial intelligence (AI) has fundamentally disrupted traditional exam formats by challenging the very foundations of assessment methods in education. Since its conceptualization in the 1950s, AI has evolved from a theoretical concept into technology capable of mimicking human intelligence and performing complex tasks. Large language models (LLMs) like ChatGPT represent the latest advancements in this evolution, demonstrating remarkable proficiency in generating human-like text and solving problems across various domains. While these capabilities offer exciting possibilities, they also expose the vulnerabilities of traditional assessments, which were not designed to account for AI's influence.

Reframing the Role of Exams in an AI-Driven Era: from certifying knowledge (curriculum and syllabus) to certifying individuals

Examinations have long served as a cornerstone of education, functioning as tools for certification, differentiation, and the shaping of learning priorities. Steinar Kvale's seminal critique of traditional examinations underscores their dual purpose: to certify knowledge and rank students (Kvale, 1996). He emphasized their performative nature, arguing that exams influence not only what is taught but how learning itself is perceived.

Source: Kvale, S. (1993): Examinations reexamined: Certification of students or certification of knowledge? In S. Chaiklin & J. Lave (Eds.), *Understanding Practice: Perspectives on Activity and Context* (pp. 215–240). chapter, Cambridge: Cambridge University Press.

Reflection Prompts for Learning Design

Course level

Purpose and Learning Objectives:

- What role do you envision AI playing in achieving the course's learning objectives?
- How can AI tools support critical thinking, creativity, or problem-solving in your course?

Student Engagement:

- How might integrating AI tools enhance student engagement and participation?
- What activities or assignments could benefit most from AI integration?

Equity and Accessibility:

- How can you ensure that all students, regardless of their technical skills, have equal access to and benefit from AI tools?
- What support or training will students need to use AI tools effectively?

Assessment and Evaluation:

- How will you design assessments to balance AI-supported work with individual effort and originality?

Transparency and Ethics:

- How will you encourage students to be transparent about their use of AI tools in their work?
- What ethical considerations should students and educators address when integrating AI into learning and exams?

Pedagogical Integration:

- How can AI tools be integrated without overshadowing the core subject matter?
- What balance will you strike between AI-assisted and traditional learning methods?

Feedback and Iteration:

- How will you gather feedback from students on their experience using AI in the course?
- How will you adapt and refine the course design based on initial outcomes and feedback?

Challenges and Mitigation:

- What potential challenges (e.g., over-reliance on AI, misuse, or learning gaps) might arise, and how can they be addressed?
- How will you ensure that AI enhances learning rather than replaces fundamental academic skills?

Professional and Future Skills:

- How can this course prepare students to use AI effectively in professional and academic settings?
- What competencies, such as AI literacy or critical evaluation of AI outputs, should be emphasized?

Alignment with Institutional Goals:

- How does integrating AI into this course align with broader institutional strategies and priorities, such as CBS's Nordic Nine or AI strategy?

Reflections and discussion prompts for faculty at department level

AI influence in my discipline, subject and/or research area *how does this affect my teaching?*

What does meaningful assessment look like in an AI-rich environment?

How do we balance AI's benefits with the need for academic integrity?

How can AI be leveraged to enhance—not replace—learning?

What institutional changes are needed to support AI-mitigating exam processes?

Challenges to specific exam formats at CBS

The rise of AI, particularly large language models (LLMs) like ChatGPT, poses a profound challenge to traditional examination formats at CBS. LLMs can generate fluent, contextually accurate responses to complex prompts, effectively automating many tasks that were once the exclusive domain of human intellect and contribution.

The different exam forms at CBS:

- **Written assignment completed at home**
- Written on-site exam
- **Oral on-site exam (without a written presentation)**
- **Oral on-site exam based on a written presentation or assignment**
- **Active participation in teaching with one or more variables**

The highlighted exam formats posing the most challenges related to AI use will be detailed on the next pages.

Source: [Vejledning om prøveformer på CBS december 2024.pdf](#)

1. Exam format: Written assignment completed at home

These are especially vulnerable as students can use AI to generate essays, case studies, and projects that meet assessment criteria without reflecting their own understanding or effort.

Mitigation strategies

- **Require Personalized and Context-Specific Content:** Design questions that demand students incorporate personal experiences, localized case studies, or specific course-related scenarios. For example, ask students to apply theories or concepts to a unique problem or event that requires detailed contextual understanding beyond what AI can generate generically.
- **Integrate Reflective and Process-Oriented Tasks:** Include requirements for students to submit a reflection or process log alongside their main assignment. This can detail their thought process, decision-making, and the steps they took to arrive at their conclusions, which are harder to fabricate using AI.
- **Demand Critical Evaluation and Justification:** Frame questions that require students to critically evaluate AI-generated outputs or to explicitly justify their arguments, citing course material or explaining why certain methods were chosen over alternatives. For instance, asking students to critique a pre-provided AI-generated text or solution ensures engagement with the material beyond mere content generation.

2. Exam format: Written Sit-in Exams with all aids

When internet access is permitted, students can leverage AI tools to solve problems or generate insights, undermining the controlled environment of the examination. **NB: NO AI use allowed in the exam hall.**

Mitigation strategies

- **Emphasize Real-Time Problem-Solving and Application:** Pose dynamic, multi-step problems that require students to apply concepts in real-time, making it challenging for AI to provide complete, ready-made solutions. For example, ask students to solve a problem based on data provided during the exam, ensuring that the questions are unpredictable and context specific.
- **Incorporate Justification and Reasoning:** Design questions that require students to explain their reasoning or critique potential solutions. For instance, ask them to evaluate the feasibility of different approaches or justify why one solution is better than others based on given parameters, pushing beyond simple factual or analytical responses.
- **Limit Scope with Timed Complexity:** Structure questions to require detailed, time-sensitive work that tests their depth of understanding. For example, include multiple interconnected parts where solving one question informs the next, requiring students to engage deeply with the material in a way that AI cannot fully anticipate or complete efficiently within the time constraints.

3. Exam format: Active Participation Assessments

AI can assist students in preparing responses for class activities, potentially diluting the spontaneity and originality expected in real-time engagement.

Mitigation strategies

- **Emphasize Spontaneous Interaction:** Design activities that require students to respond to real-time prompts, debates, or discussions where immediate critical thinking and originality are necessary. For example, ask students to react to a newly presented scenario or argument during the session, ensuring minimal opportunity for pre-prepared AI-assisted responses.
- **Incorporate Peer and Instructor Feedback Loops:** Structure activities to include iterative feedback from peers or instructors, where students must adapt and refine their responses based on the discussion. This process highlights the depth of their understanding and ability to engage dynamically with the material.
- **Assess Reflection on Participation:** Require students to submit a brief reflective statement after the activity, explaining their thought process, contributions, and how their understanding evolved during the session. This focuses on personal engagement and critical thinking, making it harder to rely on AI-generated preparations.

Conclusion

Most reliable exam formats in an AI-rich environment

Oral exams with/without any written product and written on-site exams under closed-book, no-aids conditions are the least vulnerable to AI misuse in concert with **Active Participation with assessment elements mirroring the beforementioned formats**, but during the semester. Both formats demand real-time cognitive engagement and cannot easily be outsourced to AI tools, as they either require spontaneous verbal responses or prevent access to external resources during the examination, which can be approximated closely in Active Participation.

**“Good teaching is all about hiding your intentions while insisting on them.”
- Professor Jean Lave
at Roskilde University 2024**

Perspectives: AI as an epistemological and ontological disruption

Generative AI is a technology that reconfigures the foundational relationships between authors, communication, and receivers, shaking core epistemological and ontological practice for modern universities.

Epistemological Shift: What Does It Mean to “Know” in an AI World?

- Traditional university assessments assume knowledge is constructed through human cognition, authored by individuals or collectives who engage in meaning-making.
- AI generates synthetic, probabilistic outputs, simulating knowledge without human intent.
- This forces universities to redefine what constitutes learning, originality, and intellectual contribution in the teaching/research nexus.

Perspectives: AI literacy as a new learning goal?

AI as a competency, not a shortcut:

How can students critically assess AI-generated content?

AI in professional settings:

What AI skills are relevant for future careers?

Ethical and responsible AI use:

How do we teach students to use AI ethically in academic and work contexts?

For more information please go to: [AI Tools - Educational Development and Quality](#)