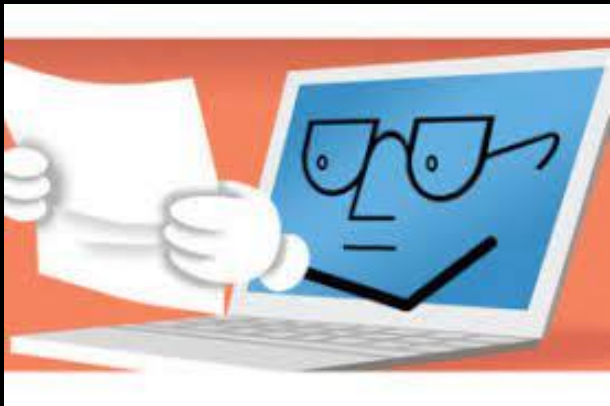


Auto-grAlde hackathon

An interdisciplinary hackathon
on AI-powered grading



Assoc. prof. Loïs Vanhée
Umeå University, Sweden
09/05/2022



Grading in COVID years

Exam 2020-12... 45/216 20.57 / 40 (51%) 216/216 Test Student

Q1: what are Neural Networks
Answer: Neural networks are...
Grade: /3

Q2: ...

Assessment
Grade out of 40

Assignment Comments
Add a Comment

Submit

Download Submission Comments

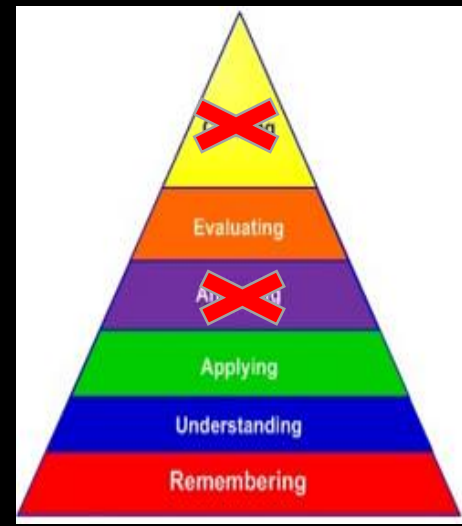
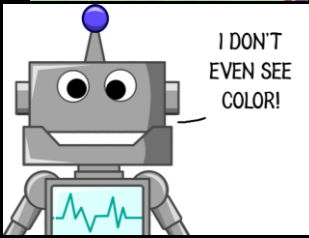
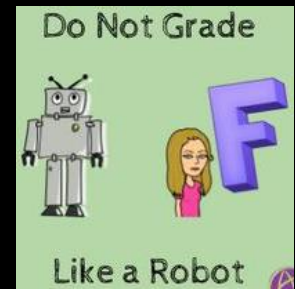
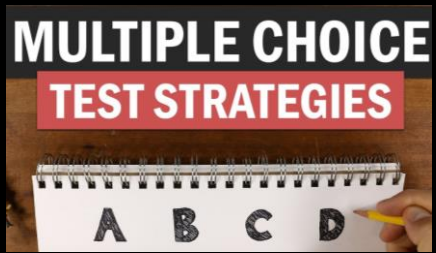
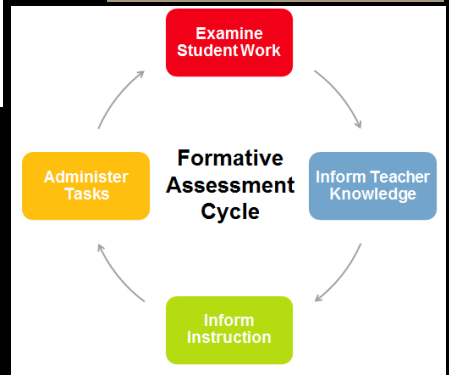
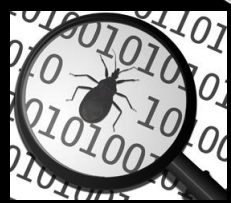
	A	B	C	
1	Student ID	Answer	Grade	
2		1 Neural networks ar	2	
3		2 It depends on the c	1	
4		3 There are three ma	2	

	A	B	C	D	
1	Student ID	Answer	Grade	AI	
2		1 Neural networks ar	2	0.5+1+0.5	
3		2 It depends on the c	1	0.5+1	
4		3 There are three ma	2	1+1+0.5	

- Got caught by Canvas!
- From canvas to excel
- I was curious... What has “2-minutes AI” to say?
 - If answer contains “neural network” add 0.5
 - This AI was actually very good!
- Can we automate grading? How?
- Exciting design question on responsible AI!



- **Interdisciplinary and collaborative** by nature
 - AI, informatics, pedagogy, philosophy, design
- Invited colleagues from other disciplines for a **discussion**
- Very **exciting exchanges**
- **Shared interests, complementary expertise**
- We learned a lot...
And can collaborate for students to enjoy this learning experience too!



AutogrAlde as a project

- Seed funding
 - 100K SEK
 - Capacity building within the uni
 - Science and education
 - Interdisciplinary
 - Involves artificial intelligence
- Involves 6 disciplines:
 - CS, Design, Informatics, Law, Pedagogy, Philosophy
- Two activities
 - Pedagogic (the hackathon)
 - Scientific (papers tied to the hackathon)



AutogrAide Pedagogic activity

- ~25 participants in total
 - Rough covid conditions
 - Hybrid
 - Seven disciplines
 - CS and philosophy very represented
 - Mostly students but also grading professionals
- One-day event
- No preparation needed for students
- No ECTS/diplomas

For-academia buildup:

- Built **in** the university
- **For** the university
- **By** empowering university stakeholders
- **Through** university activities



AutogrAide Learning Outcomes

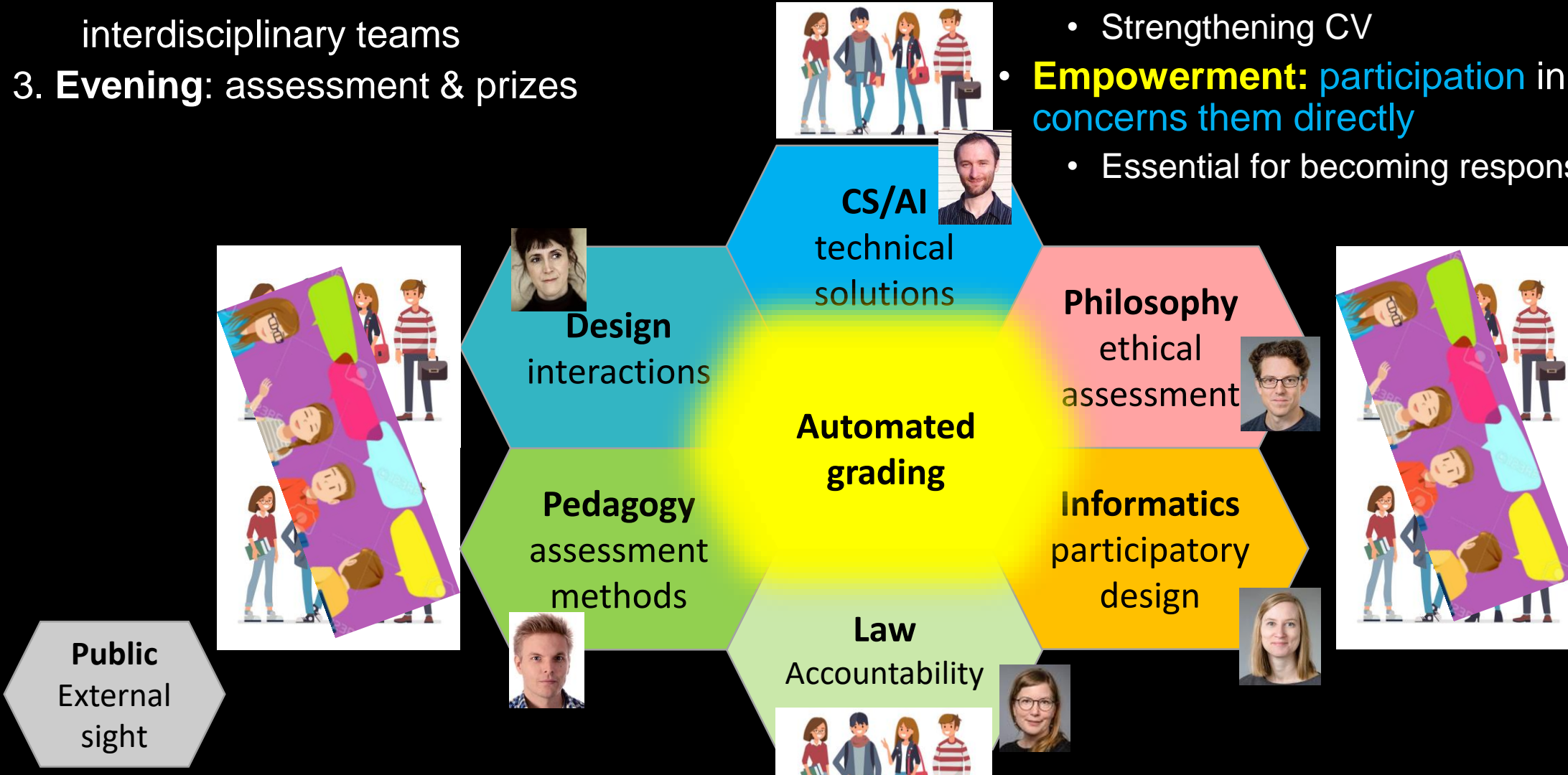
- Disciplinary mastery
 - Relate your topic to AI
 - Relate your topic to grading
 - Relate AI and grading from your topic viewpoint
 - Covered by the morning's activity
 - Purpose: create confidence and expertise
- Interdisciplinary collaboration
 - Collaborate in an interdisciplinary team
 - Propose a feasible use of AI for grading
 - Assess this proposal from your discipline's viewpoint
 - Covered by the afternoon activity
 - Purpose:
 - Active learning, make a concrete proposal (create-level) and assess it (evaluate-level)
 - Action learning: make of the product of learning a valuable content for the university
 - Empowerment: play as an engaged actor of education



Auto-grAlde activities

1. **Morning:** **Disciplinary** preparation
2. **Afternoon:** collaborations
interdisciplinary teams
3. **Evening:** assessment & prizes

- **Interdisciplinary:** true collaboration across disciplines on a shared problem
 - Unique excellent learning activity
 - Strengthening CV
- **Empowerment:** participation in a process that concerns them directly
 - Essential for becoming responsible!



Results

- Students did show up
 - Despite it being “for free”
 - And a new COVID closing up of the uni!
- Very positive feedback
 - Overall for the activity
 - Particular appreciation for the unique interdisciplinary experience
 - “seeing in other’s eyes”
- Outputs from the students
 - Feeds AI ethics discourses
 - Human at the core of all solutions
 - Feeds pedagogy discourses
 - Want AI to make grading more fair, humane and personal





Tack för mig.
lois.vanhee@umu.se