

Fremtidens Universitet med GAI

Workshop til Spring Symposium 30/5 2024

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og Pædagogisk Psykologi



Kl 14.10-15.30

Kort navnerunde

Kort oplæg om forskningsprojektet “Relational Socratic Ignorance in working with Generative AI”

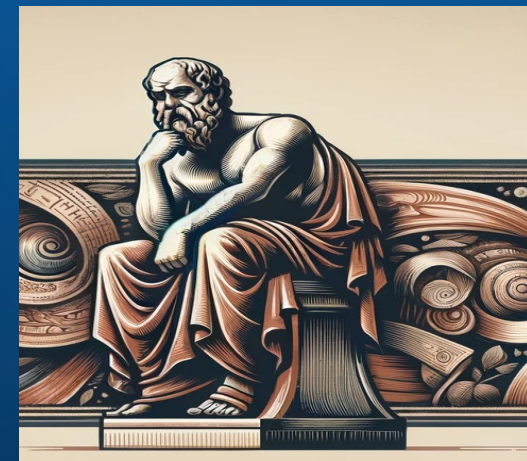
Spørgsmål til diskussion i undergrupper á 10 min. + 8 min. opsamling:

- Hvilke spørgsmål om *god* undervisning og læring rejser anvendelsen af GAI-værktøjer?
- Hvordan skal vi rammesætte vores undervisning og vejledning i fremtiden?
- Hvordan forandrer Generativ AI vores opgaver og vores rolle som undervisere – og som forskere og vidensarbejdere i det hele taget? Samt universitet som institution?

Relational Socratic Ignorance in working with generative AI, a study with Cathrine Hasse

"I am wiser in that what I do not know, I do not even suppose that I know."

Plato: Apology of Socrates



ChatGPT minder os om det gode ved
uvidenhed

<https://videnskab.dk/teknologi/?p=204105>

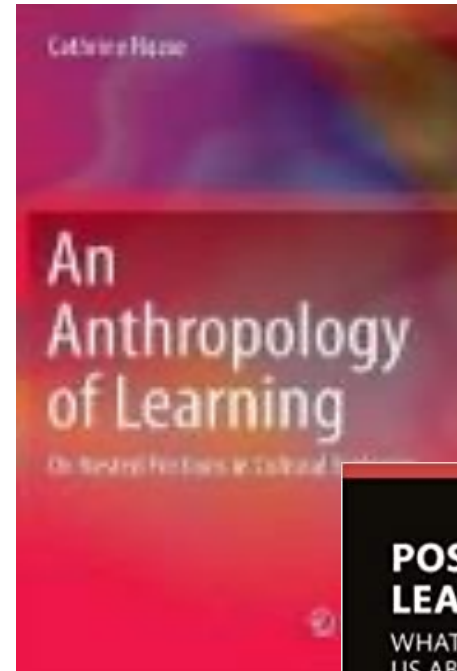
Inequalities in education

- Socio-economic inequalities – access and skills in the use of digital technologies
- Inequalities through bias, e.g. Virginia Eubanks (2018) *Automating Inequality: How High-Tech Tools Profile, Police, and Punish the Poor*
- Inequality in educational capital (*capitale scolaire*, Bourdieu)
- Here: Educational inequality in understanding frames of inquiry and interpretation, preceding learning, and understanding what *you do not know* in relation to the learning situation – what we call Relational Socratic Ignorance.

Paradox of working with ChatGPT: To get good answers you must know/be able to frame what you are ignorant about.

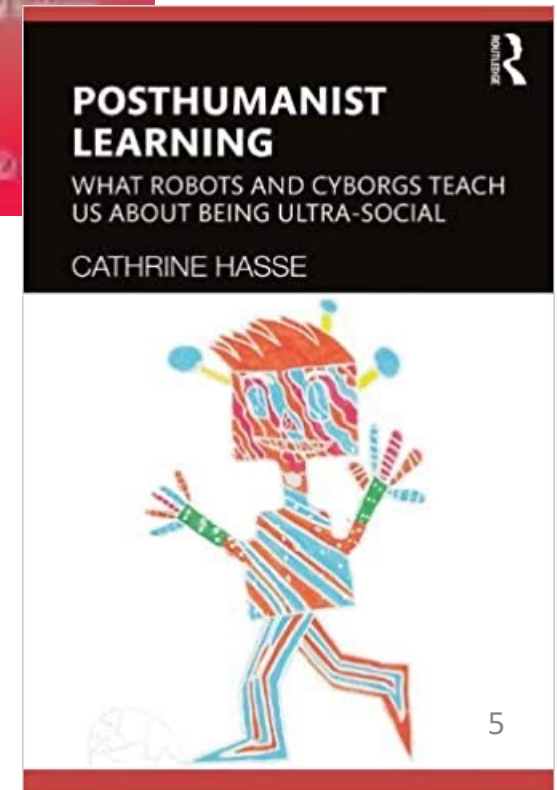
Human learning vs. machine learning

Human learning involves the potentials we have already learned (preceding learning). Machine learning (ML) is based on discrete units and probabilities that are calculated statistically. The statistical calculation is in sharp contrast to the potentials, which are more vague and which are not 'units' but potentials created in and with situations. We constantly use these potentials to understand and give meaning to our surroundings – including the texts we read. Potentials are not knowledge, but a potentiality for knowledge. (Hasse 2020)



An Anthropology
of Learning, 2015

Posthumanist
Learning, 2020



Educational anthropology



Gregory Bateson
System theory



Jean Lave
Legitimate peripheral participation
Situated learning



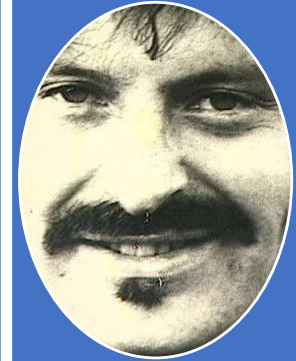
Ed Hutchins
Distributed cognition



Roy D'Andrade
Cultural models



Tim Ingold
Wayfaring



Paul Willis
Learning to Labour



Method to explore how students use preceding learning: essay writing workshops on “What is education”/”What is learning?”

Workshops with students and teachers

Two full-day workshops with students and teachers from educational anthropology in June 2019.

Essays collected

Prompt history collected

Interstitial group interviews

Participant recruited through Brightspace and campus talks.

Comparing essays with and without use of ChatGPT

1. Five lines extemporal text on What is Education/What is Learning?
2. Continue with ChatGPT-3
3. Continue with text (Situated Learning or What is Education)
4. Final version

Or

1. Five lines, extemporal text
2. Continue with text
3. Continue with ChatGPT-3
4. Final version

”ChatGPT is good for brainstorming”
- but how does this
brainstorming work?

”ChatGPT can just give you a little kick-start (*startskub*),
knowing full well that it can also lead you astray.”

ChatGPT can be ”a friend/mate/buddy for brainstorming”
(*en makker til brainstorming*)

”I think that ChatPGT makes me fly off at a tangent [ud ad
en tangent]”

Some students let themselves be carried away by the
frames of inquiry and interpretation that ChatGPT comes
with – others try to fight back ChatGPT’s frames of inquiry
and interpretation through their prompts.

Findings: What is education?

- Formation ('dannelse' or Bildung) mentioned by 7 participants, 5 with background in teacher education.
- ChatGPT only mentioned 'formation' after prompts. ChatGPT has an instrumental definition of education (repeated by some students)
- Spill-over from ChatGPT and text:
ChatGPT: Sentences with lists (skills, knowledge etc.)
Text: Names Durkheim, Willis, Dewey, Lave
-> both ChatGPT and texts frame the students' inquiries, but some take over and some fight back the the frames of interpretation.

An example of fighting back ChatGPTs frames

The student's own "free" writing started from the assumption that "education is development [udvikling]"

1st prompt: Is education evolving [at udvikle sig]?

ChatGPT: "Yes, education is a process of continuous development and improvement of one's knowledge, skills and abilities. (...)

Education is essential for personal growth and career development. (...)

One of the primary reasons education is important is that it allows us to acquire new skills and knowledge. By learning new things, we can expand our horizons, improve our job opportunities and strengthen our ability to solve problems in our personal and professional lives. (...)

3rd prompt: I don't want to focus on professional learning and growth, what can I do?

”If you do not want to focus on professional learning and growth, there are still many opportunities for personal development in other areas.

Here are some areas you might consider exploring:

1. Self-awareness and self-reflection: (...); 2. Personal care and health: (...); 3. Communication and relations: (...); 4. Emotional intelligence: (...); 5. Creativity and artistic expression: (...); 6. Personal growth through experiences: (...); 7. Self-management and goal-setting.

5th prompt: ”I am not interested in adapting to a changing labor market.”

6th prompt: Is education something other than professional and personal development?

7th prompt: What would you say is the difference between education and formation/Bildung [dannelse]?

8th prompt: Write the difference between education and formation more clearly.

9th prompt: So if it does not give external recognition, then it is not education?

An example of taking over the style and frames of interpretation of ChatGPT-3

This participant is not a trained teacher. The participant's "free" writing started with educational institutions and "unofficial" education.

Only one prompt: What is education? [Hvad er uddannelse?]

In the final version of the essay the participant reproduced the structure and themes from ChatGPT's output, listing the different things that education can be, now using education jargon, e.g. 'formal education' and 'informal education'.

Just like ChatGPT, the essay ends with a paragraph on education's many "different aims", a tendency of having a kind of "disclaimer" at the end.

NB Not only Chat GPT changed the frames of the students' interpretation. So did the texts that we gave them (e.g Jean Lave).

The point is reflecting on and becoming aware of our different frames of inquiry and interpretation, cultural resources, normativities, etc.

ChatGPT demands a Relational Socratic Ignorance

- it does not offer Socratic Dialogue
- ChatGPT is organised like a dialogue, but students are not urged students to challenge their own, ChatGPTs or the education programmes' frames of inquiry and interpretation that all dialogues (and chats) are embedded in.
- ChatGPT "packages" vast amounts of 'knowledge' in bullet points. Ignorance can go in many directions.

Conclusion: New demands and awareness among teachers

If students are left to 'individualised' learning with ChatGPT or T-bots, inequality may increase due to differences in preceding learning and lack of awareness of ignorances.

1. ChatGPT urges us to question our theories of learning (which ones do we actually hold?) and what we take for granted in university education and teaching.
2. We need to teach all students even more specifically the basics about the frames of interpretation of a particular discipline/programme - even if open ended.
3. We need to develop a specific Relational Socratic Ignorance that make students capable of using and prompting ChatGPT in specific contexts.

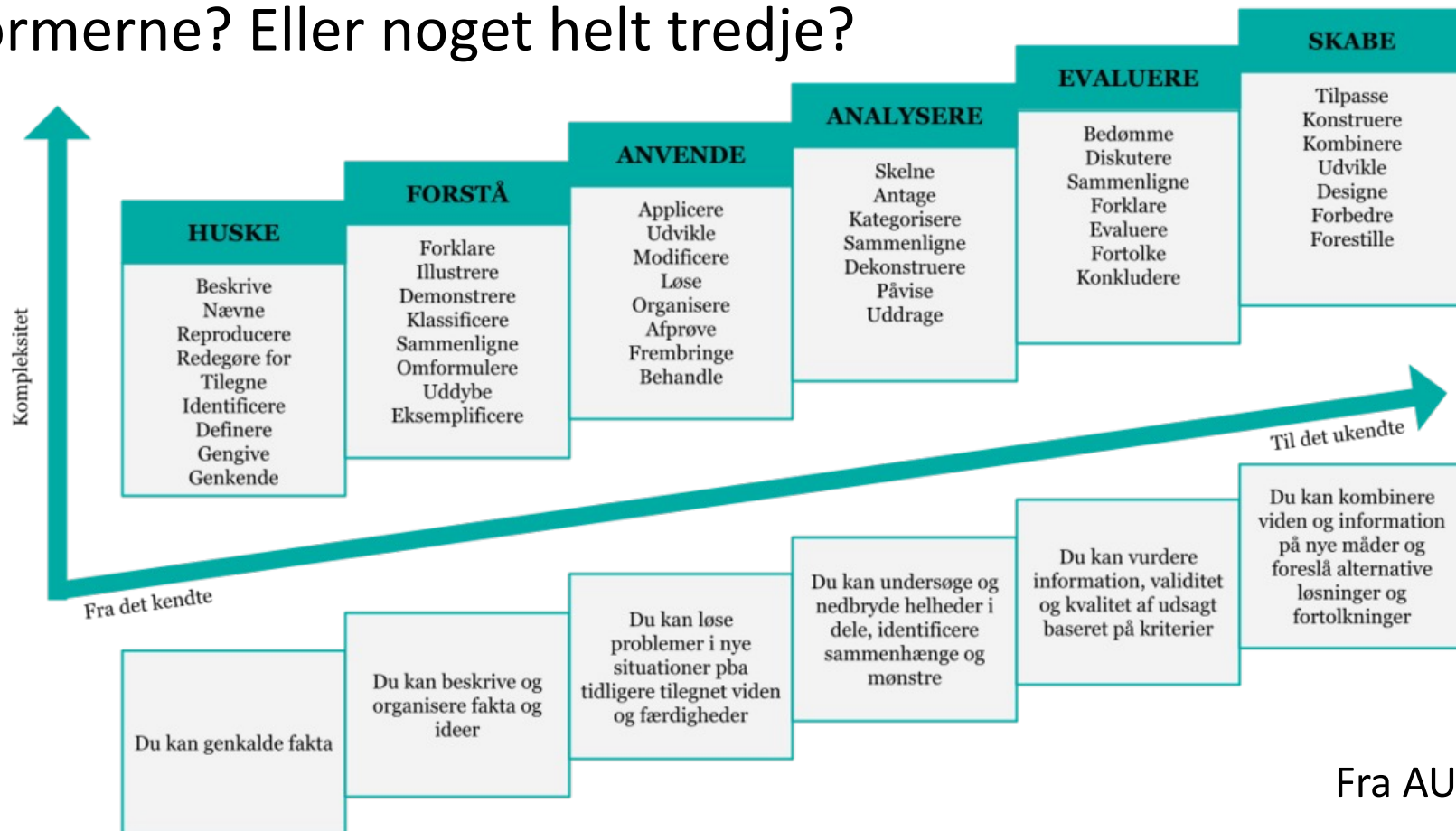
God undervisning og læring

– et (tiltrængt) opgør med Blooms taksonomi?

Uddannelsesforum Arts har diskuteret: "På de nederste taksonomiske niveauer, består botten opgaverne."

Vender ChatGPT op og ned på modellen?

Er problemet læringsmålene (a la Bologna) eller eksamensformerne? Eller noget helt tredje?



Hvordan skal vi rammesætte vores undervisning og vejledning i fremtiden?

- Autoritet?
- Viden?
- Faglige discipliner? ChatGPT skal promptes for at svare inden for bestemte discipliner – og hvilke opfattelser af fag, faglighed og discipliner ligger i ChatGPTs træningsdata?
- Bias? Vi ved at der både er bias i modellerne og i vores studerendes brug af teknologierne (fx kønsbias)
- Flipped classroom og asynkron læring på nye måder?
- Feedback – både fra ChatPGT og undervisere?

Hvor meget skal vi styre, hvad der foregår uden for undervisningslokalet og hvordan?

Hvordan gør vi nu – og hvordan skal vi gøre i fremtiden?

Hvilke former for kollegaskab og støtte fra universitetet har vi brug for?

Hvordan udfordrer ChatGPT og andre store sprogmodeller opgaver og roller som undervisere - og forskere og vidensarbejdere i det hele taget?

Samt universitet som institution?

- Hvilke værdier forbinder vi med vores arbejde?
Hvilke værdier har vi mulighed for at *agere*?
- Hvordan har universitetet forandret sig?
Overgang fra det humboldtske til det napoleanske universitet, koblete det til OECDs fokus på uddannelser i sammenhæng med vækst og arbejdsmarked.

Podcast anbefaling

Mystery AI Hype Theater 3000

v. Emily M. Bender og Alex Hanna

Emily M. Bender, Professor, Department of Linguistics, University of Washington, forfatter til “On the dangers of stochastic parrots: Can language models be too big?” (2021)

*Alex Hanna, sociolog, PhD, Director of Research, Distributed AI Research Institute.**

* We are an interdisciplinary and globally distributed AI research institute rooted in the belief that AI is not inevitable, its harms are preventable, and when its production and deployment include diverse perspectives and deliberate processes it can be beneficial.

Hvilke illustrationer bruger vi i vores undervisningsmaterialer?

Better Images of AI

<https://betterimagesofai.org>

Humanoid robots, glowing brains, outstretched robot hands, blue backgrounds, and the Terminator.

These stereotypes are not just overworked, they can be surprisingly unhelpful.

