THE INSPIRATIONAL TALK 😊
SkoleGPT

The case of a GDPR safe educational AI resource in Denmark

The School Innovation Forum 2024
“EdTech in schools: from promises to reality”
European Schoolnet
4.-5. April, 2024, Luxembourg
HELLO I’M...
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• Centre for Education Ressources, Capital
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• Future Classroom Lab, Copenhagen

That’s me on the right, accepting “Sprogprisen - the Danish Language Award” for SkoleGPT. The other guy is also called Martin.
Time to Reach 100M Users

Months to get to 100 million global Monthly Active Users

- Google Translate: 78 months
- Uber: 70 months
- Telegram: 61 months
- Spotify: 55 months
- Pinterest: 41 months
- Instagram: 30 months
- TikTok: 9 months
- ChatGPT: 2 months

Source: UBS / Yahoo Finance

@EconomyApp

APP ECONOMY INSIGHTS
LET’S BUILD A **FREE, GDPR SAFE** ALTERNATIVE ON **OPEN SOURCE**

**EMPOWER** TEACHERS TO BE ABLE TO **TEACH WITH AND ABOUT** AI, SO STUDENTS CAN **LEARN WHAT AI IS AND ISN’T GOOD AT.**
Velkommen til SkoleGPT

Michael I am SkoleGPT, a Danish language model developed specifically for the University College of Copenhagen. I am based on the Minerva-3b model and am here to help you with any questions or tasks you may have in Danish. I will always respond in Danish, and if I am unable to understand or provide a response in a natural, I will kindly ask for a rephrasing. Is there something I can help you with today?
FIRSTLY, DATA PRIVACY/GDPR IS A CONCERN
LET’S REMOVE THAT

• No log-in and no logging of user data - the user stays anonymous
• All data is stored in the user’s browser session
• We don’t capture, save, share or process any user data
• We do not train the LLM model with any user data
• No API calls to other services.

• This is obviously a major disadvantage to commercial products.
WHAT IS SKOLEGPT?

• An AI chatbot – prototyped and build on open-source frameworks
• The model and the service is hosted in a safe and national digital infrastructure via Danish library Centre (DBC)
• An educational resource for AI related teaching in primary and secondary schools
• Didactic and pedagogical research and development in teaching with AI
• A platform for multiple projects related for teaching with and about AI

• More things to come...
IT’S A PROTOTYPE

Not like this....

1
2
3
4

Like this!

1
2
3
4
5

by Henrik Kniberg
A little technical note

We started with Meta’s Llama 7-b model but we just upgraded to: **Mixtral 8x7B**
(benchmarking around chatGPT 3.5 and better on some parameters)

| open-mixtral-8x7b | A 7B sparse Mixture-of-Experts (SMoE). Uses 12.9B active parameters out of 45B total. | $0.7 /1M tokens | $0.7 /1M tokens |
INSTRUCTION DATASET

as a side project to SkoleGPT We have collected questions that students asks skoleGPT and trained a instruction set on that. Allowing us and others to steer the LLM towards danish language and pedagogical purposes.

Open Sourced via repository on Github
WHAT IT ISN’T...

• It’s not a Large Language Model (LLM) – we are building on existing open-source models and frameworks
• Not in direct competition with big tech ChatGPT, Gemini, CoPilot etc. we are a free alternative.
• It is not a commercial enterprise product. Free for schools. we are looking for further funding and partnerships, though.
• Not a replacement for teachers or offline/screenless teaching
• Not made for cheating or shortcutting learning
A COMMUNITY OF STAKEHOLDERS
WE HAVE SEEN...

- Didactic and pedagogical differentiation
- Generating idea for exercises in classes
- Structuring texts and guidance in writing process
- Teaching languages/translation
- Explain concepts
- Playing or creating fictional/historical characters
- Simulation, case and scenarios building
- Support coding in several frameworks
- Etc...
LET’S TAKE SKOLEGPT FOR A SPIN...

• www.chat.skolegpt.dk
WHERE WE WANT TO GO

- Generating images
- Link to pre-prompts

- SkoleGPT as platform for different AI educational tools that you run freely and safely.
- SkoleGPT as a contribution to a Danish Foundation model.

- Multi modality – speech and vision
- RAG models – Ex. chat.SkoleGPT/history
WHY IS THIS IMPORTANT

• Teaching technology and digital bildung requires educational resources that is free and accessible to all - (teaching technology and computation is not a just curricular matter or a skillset - it is a literacy)

• Schools (and society at large) need to be in control of the digital solutions and the use of data related to these. Lex: Google Chromebook legal case in DK

• Ai is becoming a cultural- and geo-political matter – the cultural domains and institutions are under siege.
WHAT HAVE WE LEARNED

• Build it and they will come – yes, if you address needs that is there
• Open it up - be transparent and open on who you are, what you do and how.
• Be prepared for the unexpected – have your story and facts straight
• The project as a conversation with the teachers
• Bring a Prototype as a way of learning and prioritizing
• Share it - Create more value than you capture
• Open source rocks 🤘
• Build a community of stakeholders
THE DYSTOPIAN VERSION:

SOCIAL MEDIA’S
“SURVEILLANCE CAPITALISM”

TO

AI’S
“INTIMACY CAPITALISM”

IT’S THE BUSINESS MODELS, STUPID
THE UTOPIAN PERSPECTIVE

FIXED CONVENTIONAL LEARNING

TO

SCALED LEARNING INDIVIDUAL 1:1 TUTORING

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The 2 Sigma Problem: The Search for Methods of Group Instruction as Effective as One-to-One Tutoring

BENJAMIN S. BLOOM
University of Chicago and Northwestern University

Two University of Chicago doctoral students in education, Amstein (1982, 1983) and Burke (1984), completed dissertations in which they The students were randomly assigned the three learning conditions, and their initial aptitude tests scores, previous achievement students under conventional instructional conditions. (See Figure 1.) There were corresponding changes in students’ time on task in
A LOT IS STILL UNDECIDED!

HOW WILL AI, DATA AND DIGITALIZATION IN SCHOOLS AND IN SOCIETY BE REGULATED!

EU AI ACT 🤞
AI CHANGES EVERYTHING AND NOTHING AT THE SAME TIME.

TEACHING AND LEARNING WILL EXIST - AND BENEFIT FROM AI – SUBJECT MATTERS AND SKILLS WILL REMAIN

...BUT THE WAY WE TEACH AND LEARN, TEST WILL BE CHANGED
WHAT DO WE ACTUALLY NEED TO LEARN? WHY AND HOW?

WHAT ARE WE TESTING STUDENTS FOR? WHY AND HOW?

WHAT DO WE WANT THE SCHOOL TO BE AND DO FOR US?
THANKS 🙏

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