Mākslīgais intelekts biznesā

Dr. Evalds Urtans
RTU, LIEPU, asya.ai

Kas ir mākslīgais intelekts?

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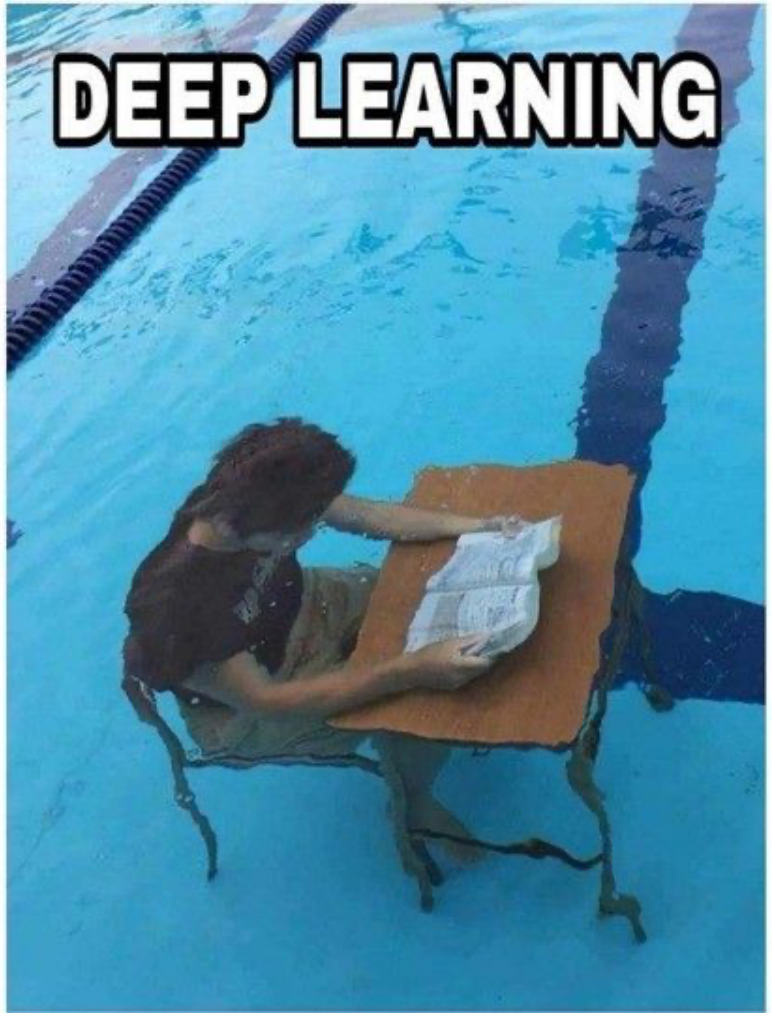

Kas ir mākslīgais intelekts?

$$
\begin{aligned}
i_t &= \sigma(W_i * [\mathcal{X}_t, \mathcal{H}_{t-1}] + b_i) \\
f_t &= \sigma(W_f * [\mathcal{X}_t, \mathcal{H}_{t-1}] + b_f) \\
e_{t,z} &= V_e \cdot \tanh(W_e * [\mathcal{X}_{t,z}, \mathcal{H}_{t-1}] + b_e) \\
\alpha_{t,z} &= \frac{\exp(e_{t,z})}{\sum_{j=1}^{\tau} \exp(e_{t,j})} \\
p_t &= \sum_{j=1}^{\tau} \alpha_{t,j} \tilde{\mathcal{X}}_{t,j} \\
n_t &= \sigma(W_n * [\mathcal{X}_t, \mathcal{H}_{t-1}] + b_n) \\
g_t &= \tanh(W_g * [p_t, \mathcal{H}_{t-1}] + b_g) \\
\mathcal{C}_t &= f_t \circ \mathcal{C}_{t-1} + i_t \circ a_t + n_t \circ g_t \\
a_t &= \tanh(W_a * [\mathcal{X}_t, \mathcal{H}_{t-1}] + b_a) \\
o_t &= \sigma(W_o * [\mathcal{X}_t, \mathcal{H}_{t-1}] + b_o) \\
\mathcal{H}_t &= o_t \circ \tanh(\mathcal{C}_t)
\end{aligned}
$$

Kas ir mākslīgais intelekts?

- **Lineārā algebra**
- **Augstākā matemātika**
- **Varbūtību theory**
- **Informācijas theory**
- **10% programmēšana**

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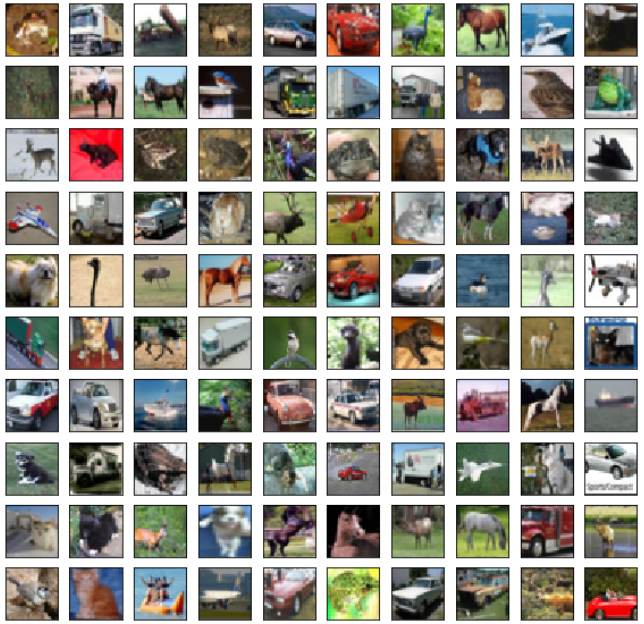

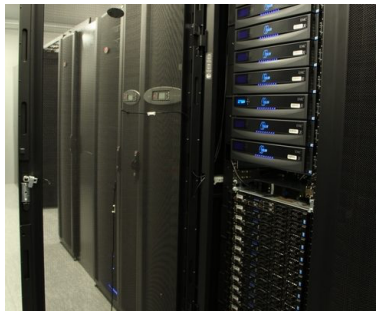

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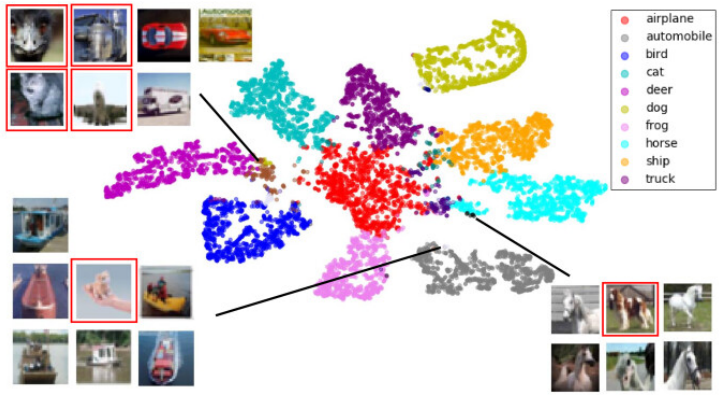
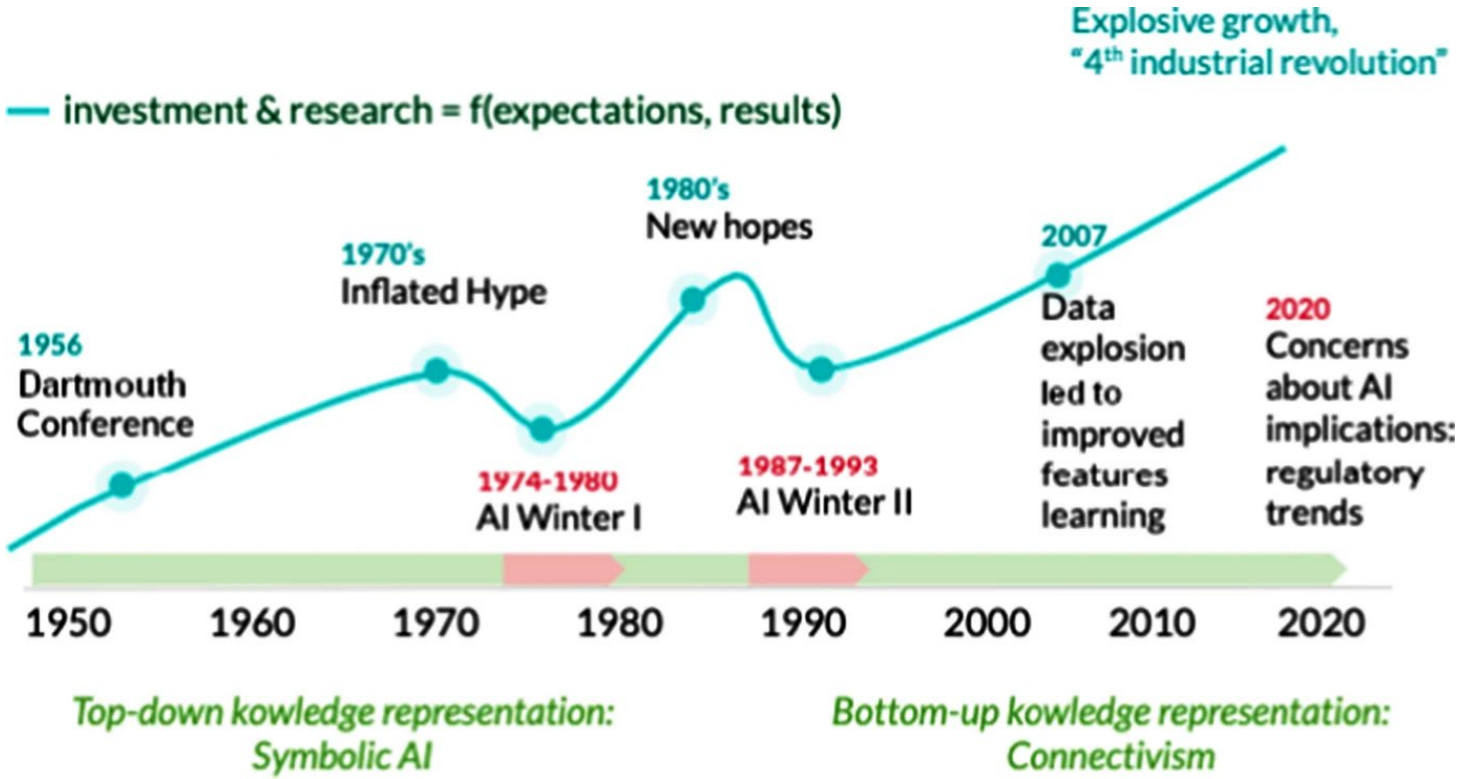
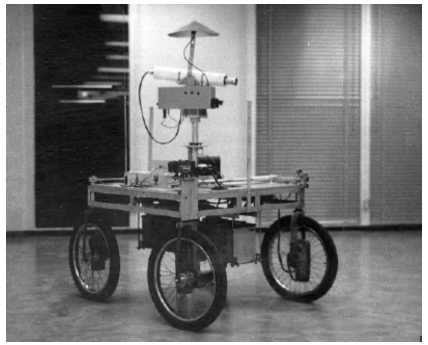


Vēsture



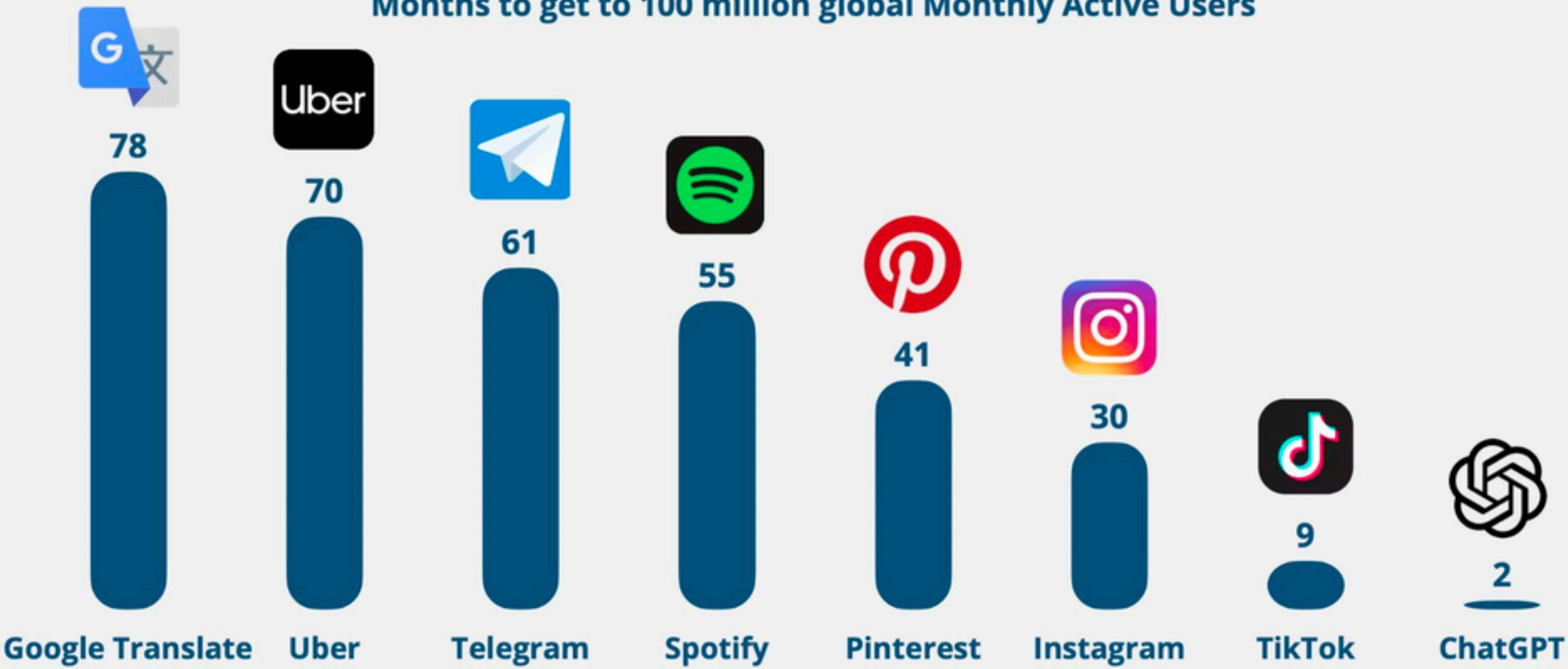
Hans Moravec's Robots, 1975



Tesla FSD, 2023

Time to Reach 100M Users

Months to get to 100 million global Monthly Active Users

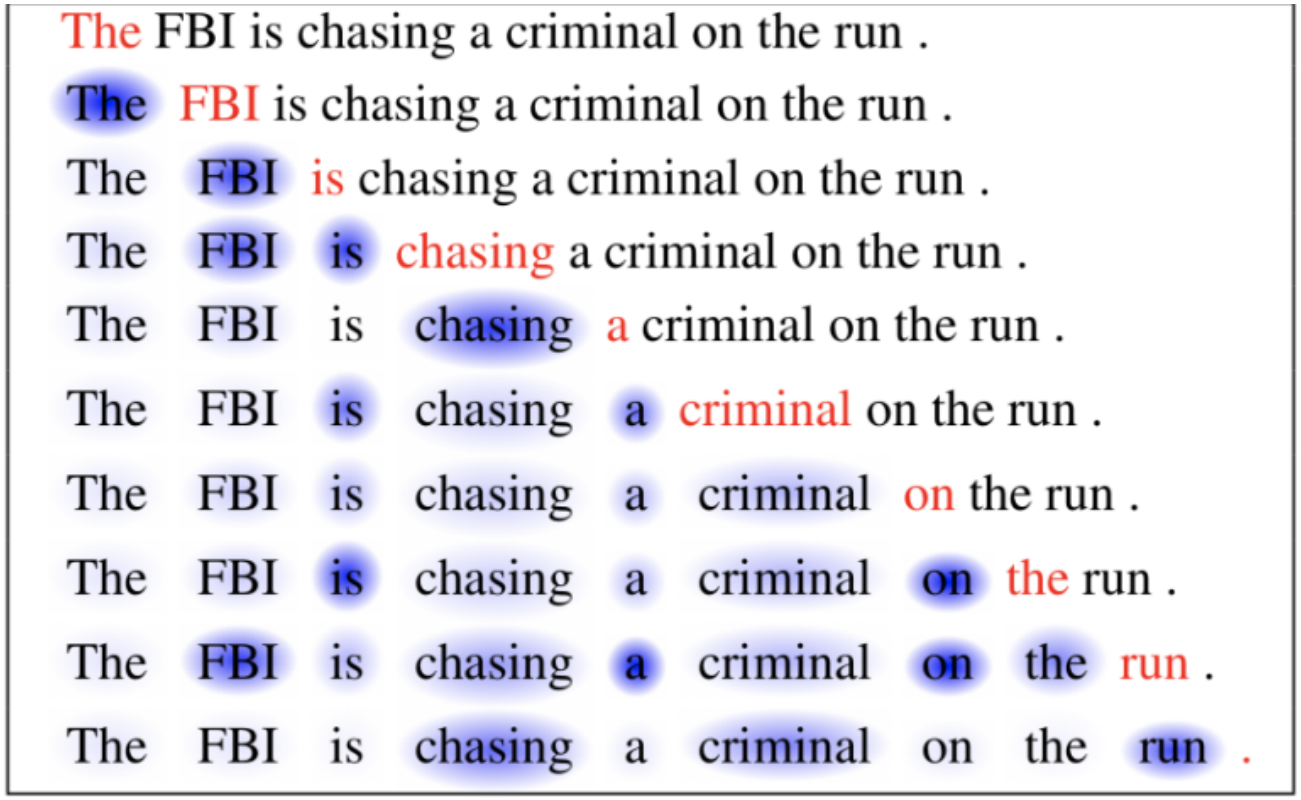


Source: UBS / Yahoo Finance

@EconomyApp

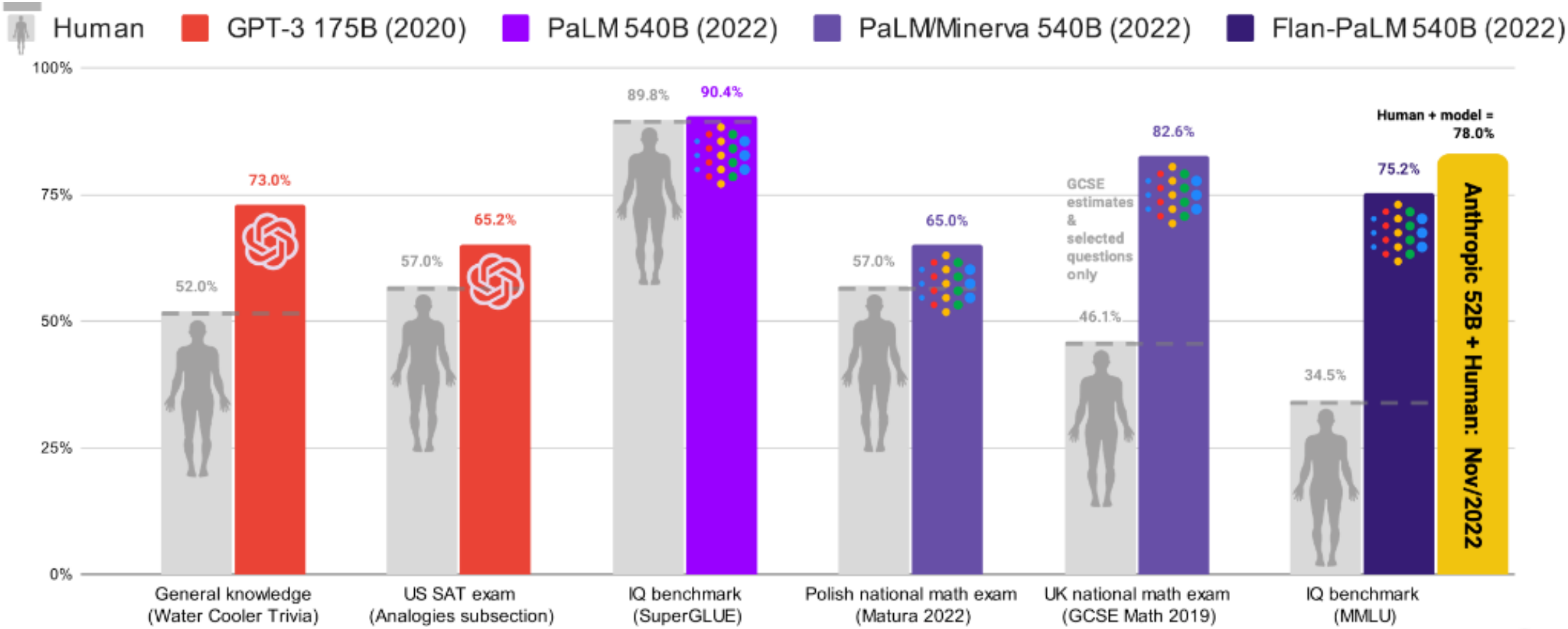
APP ECONOMY **INSIGHTS**

ChatGPT valodas modelēšana

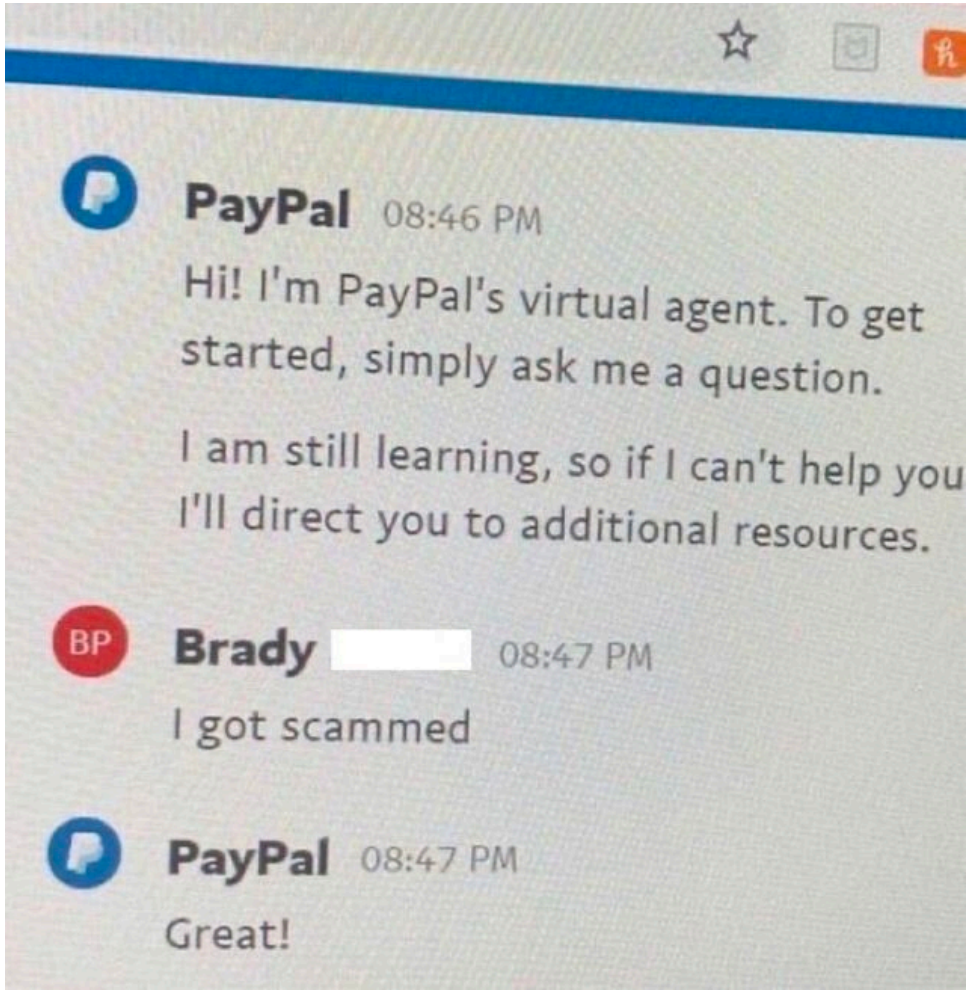


- BERT (Google), GPT (OpenAI), 2018
- CommonCrawl (10 years), 410b tokens
- 1500 vārdu limits

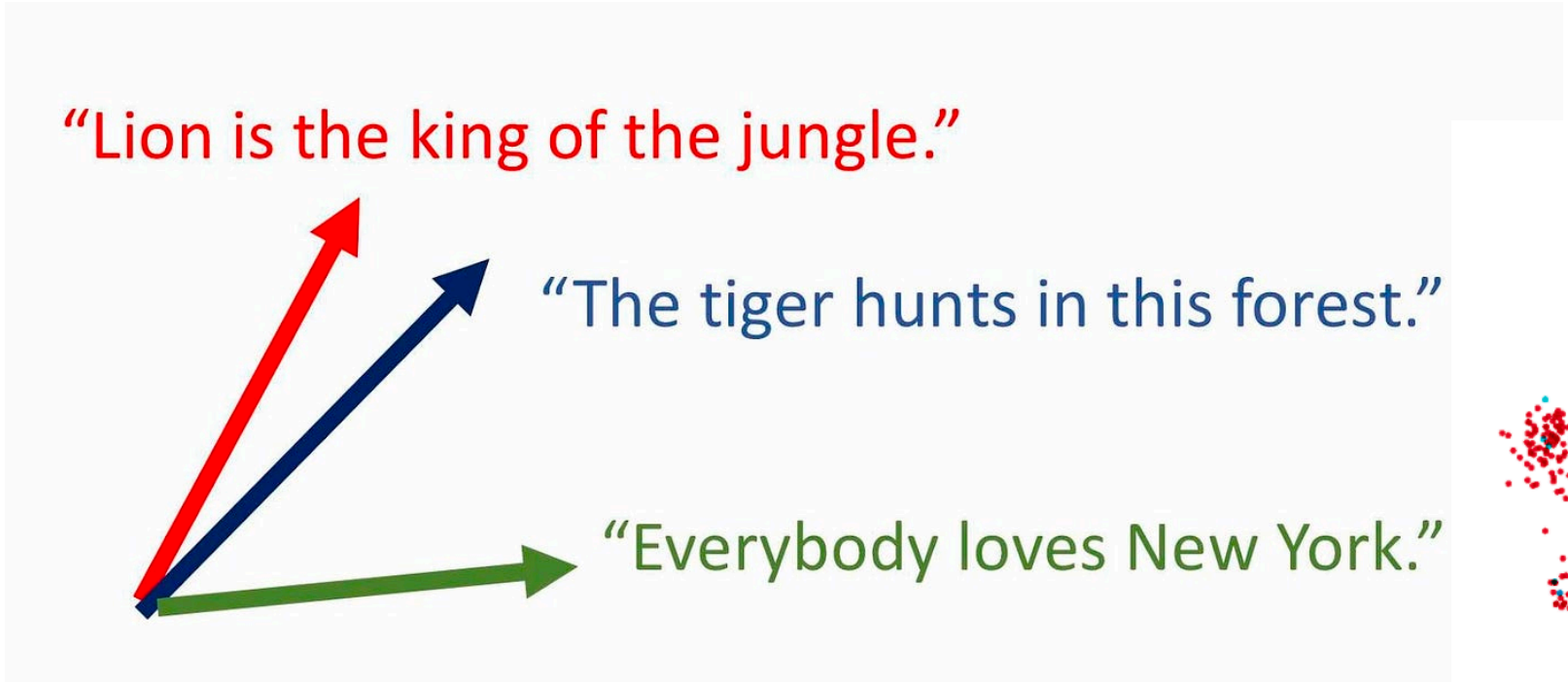
Paceļ vidējo zināšanu līmeni

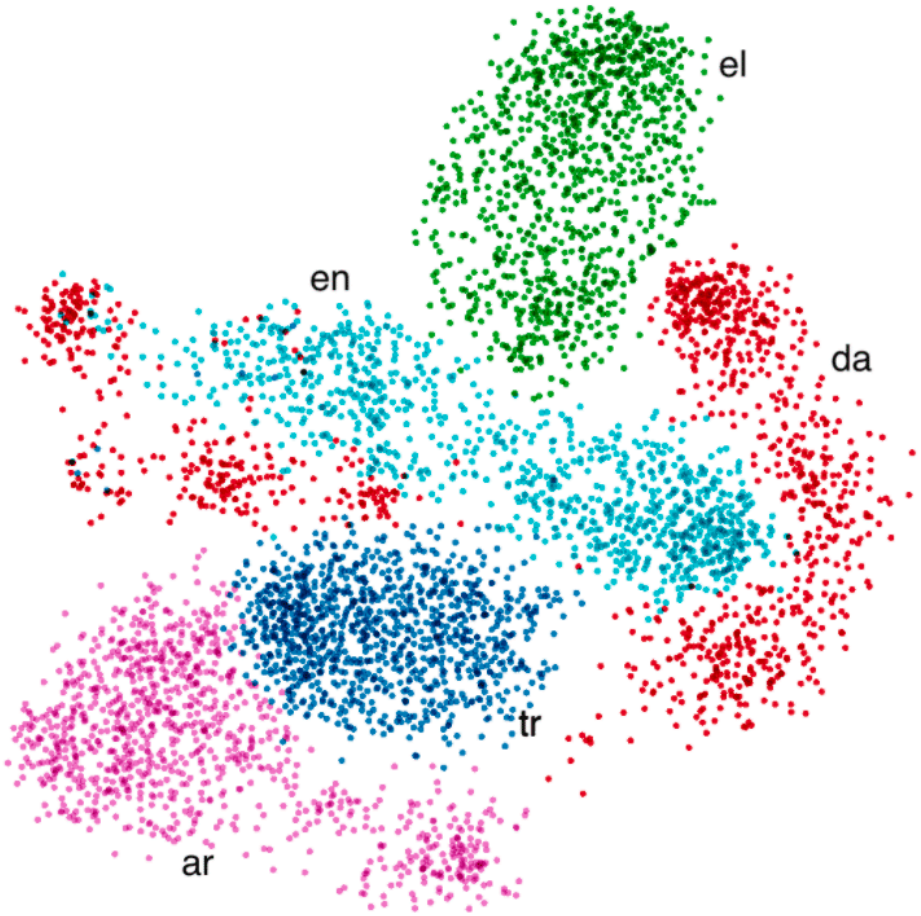


Čatboti

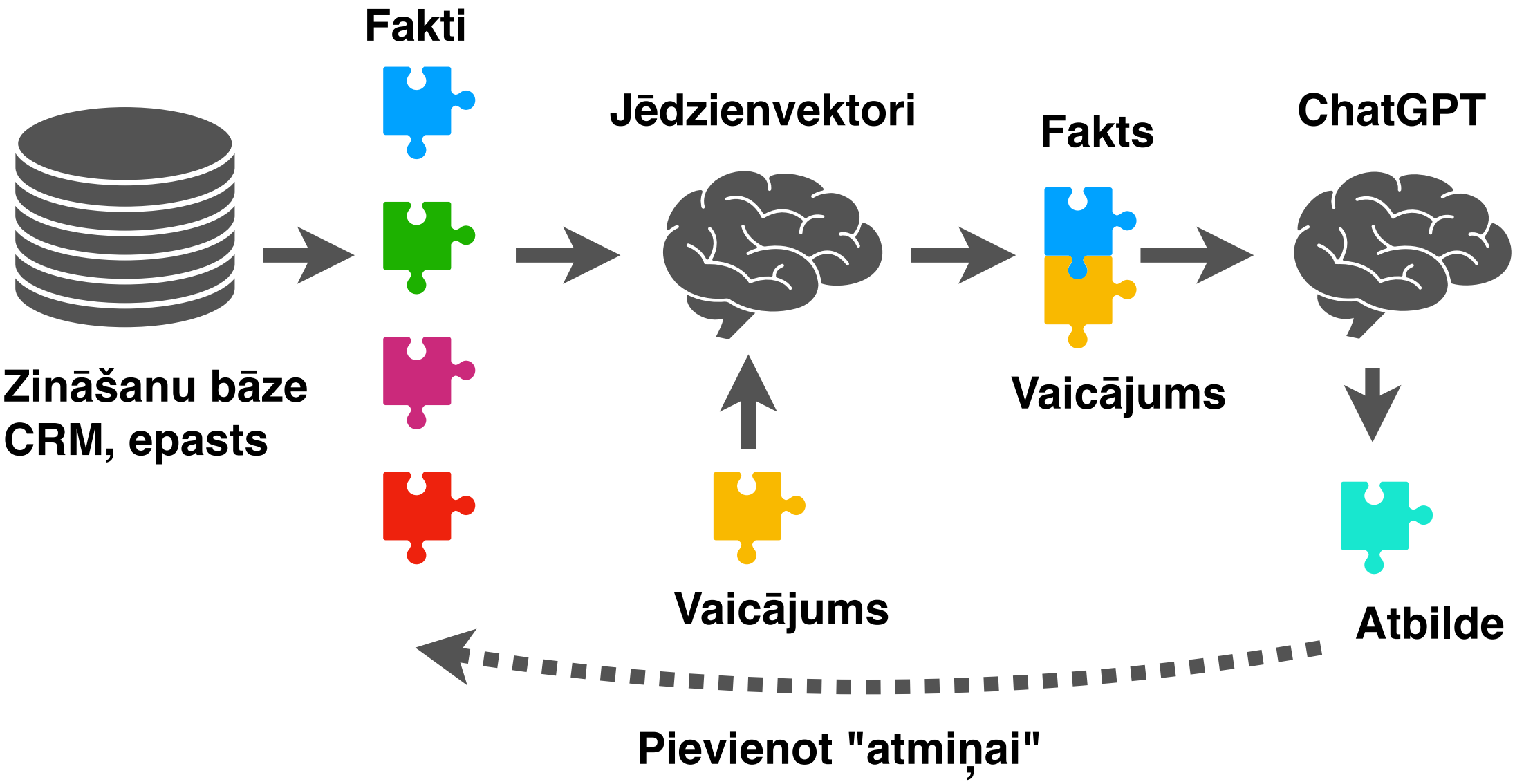

PayPal 08:46 PM
Hi! I'm PayPal's virtual agent. To get started, simply ask me a question.
I am still learning, so if I can't help you I'll direct you to additional resources.
BP
Brady [redacted] 08:47 PM
I got scammed
PayPal 08:47 PM
Great!

Jēdzienvektori





Patiesi gudri čatboti



Potenciālie produkti

1. Čatboti (Client support, Personal tutor, Elderly care)

2. Meklētāji (Your own docs, Email, Advertisement)

3. Satura veidošana (UpWork, Amazon, Twitter, Email, Websites, Ideas, Academia)

4. Satura personalizēšana (Translation, grammar, style, editing, customization)

5. Datu kopas, klasifikatori

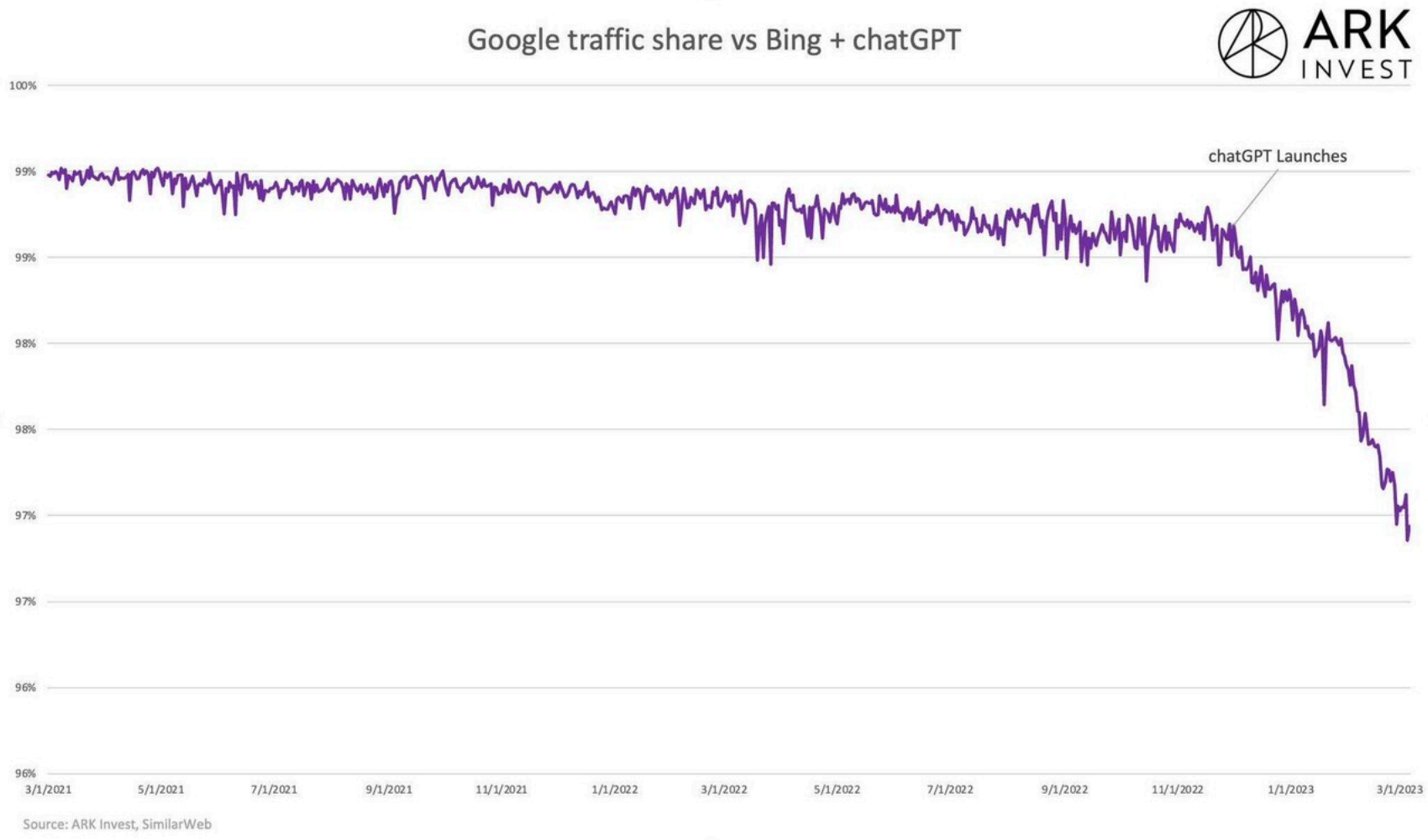
6. Autonomas sistēmas, roboti

Gatavie rīki - ChatGPT tipa

Search engines:
- perplexity.ai
- chat.you.com
- Google Bard VPN

Productivity:
- chatpdf.com

Content:
- jasper.ai
- writesonic.ai
- chat.openai.com



theresanaiforthat.com

asya

ting AI, software and design of the future.

Look into the future

Team

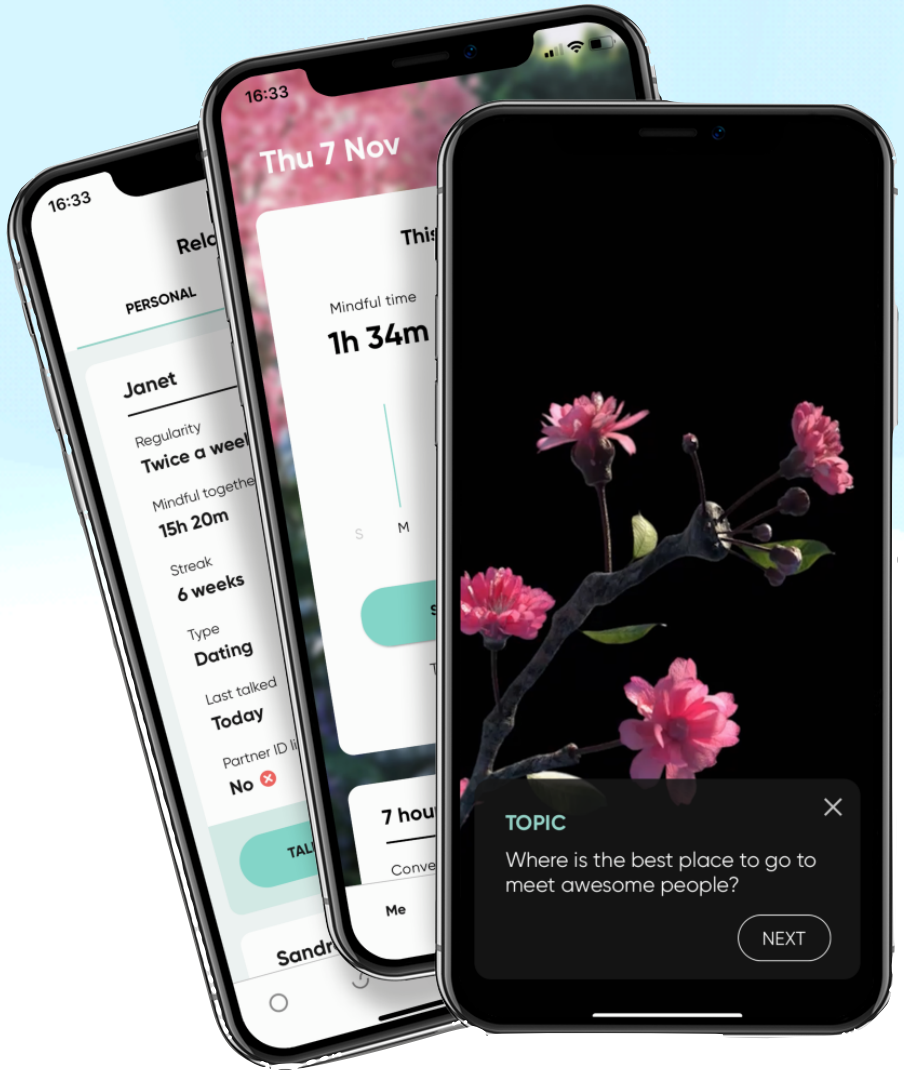
20 employees
Award-winning scientists and UX designers
10+ scientific publications

https://www.asya.ai/publications/

Closer to You App

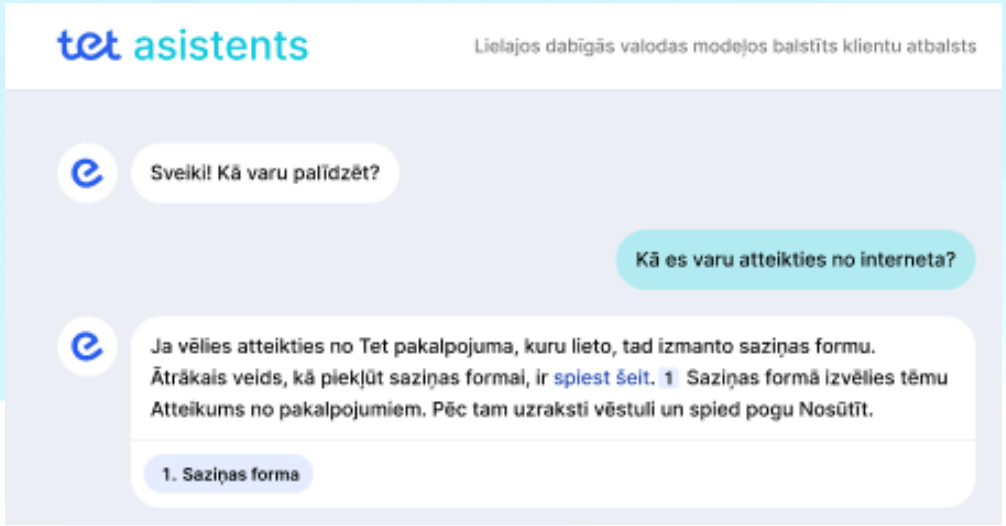
Forbes

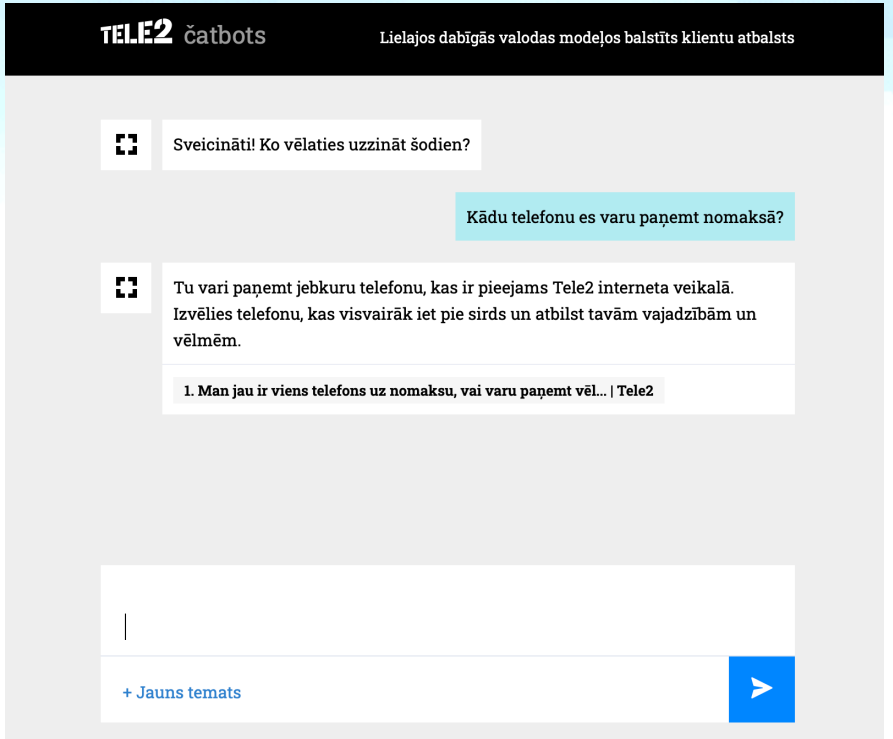
“The disruption potential for Asya app could be immense. In many countries, psychological services are either difficult to find, cost prohibitive or both.”

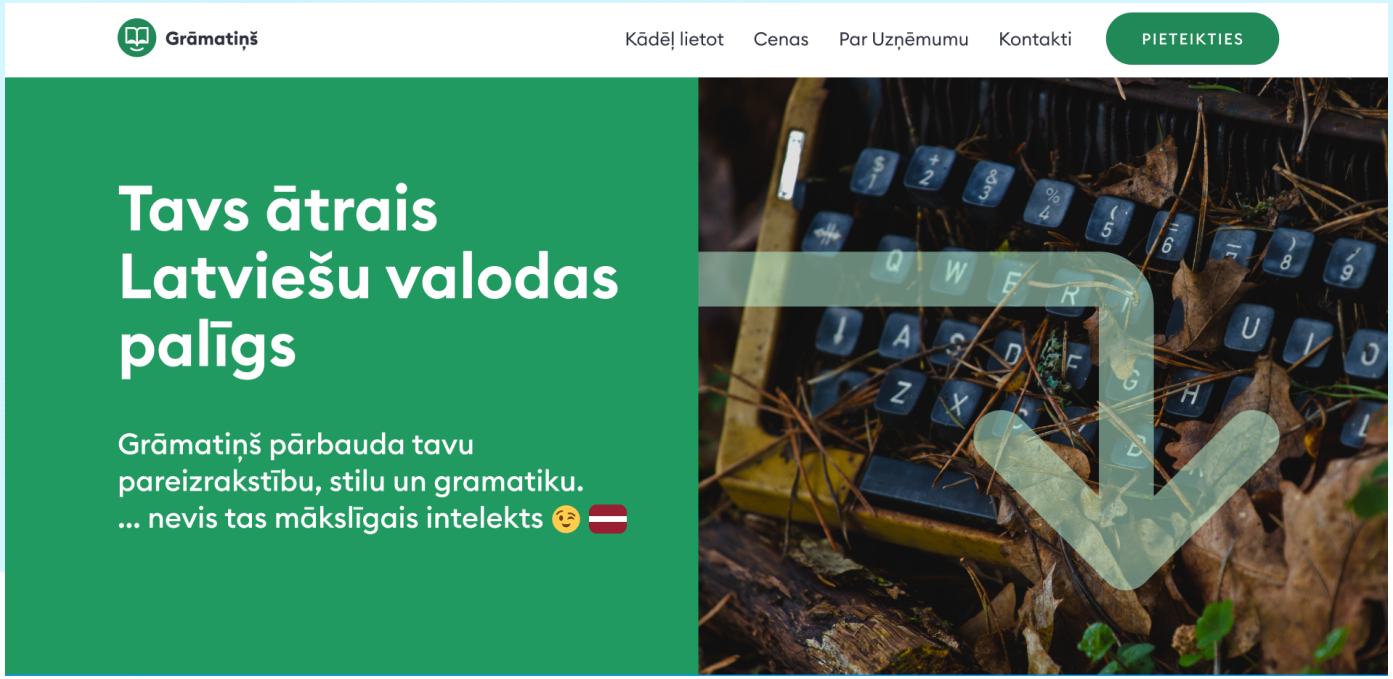


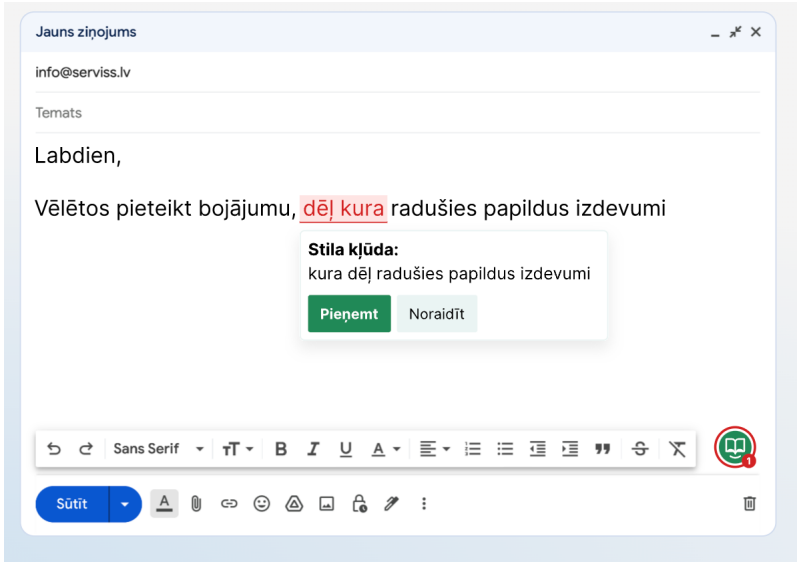
Pitch Patterns

See conversations


tet asistents
Lielajos dabīgās valodas modeļos balstīts klientu atbalsts
Sveiki! Kā varu palīdzēt?
Kā es varu atteikties no interneta?
Ja vēlies atteikties no Tet pakalpojuma, kuru lieto, tad izmanto saziņas formu. Ātrākais veids, kā piekļūt saziņas formai, ir spiest šeit. 1 Saziņas formā izvēlies tēmu Atteikums no pakalpojumiem. Pēc tam uzraksti vēstuli un spied pogu Nosūtīt.
1. Saziņas forma


TELE2 čatbots
Lielajos dabīgās valodas modeļos balstīts klientu atbalsts
Sveicināti! Ko vēlaties uzzināt šodien?
Kādu telefonu es varu paņemt nomaksā?
Tu vari paņemt jebkuru telefonu, kas ir pieejams Tele2 interneta veikalā. Izvēlies telefonu, kas visvairāk iet pie sirds un atbilst tavām vajadzībām un vēlmēm.
1. Man jau ir viens telefons uz nomaksu, vai varu paņemt vēl... | Tele2
+ Jauns temats


Grāmatiņš
Kādēļ lietot
Cenas
Par Uzņēmumu
Kontakti
PIETEIKTIES
Tavs ātrais Latviešu valodas palīgs
Grāmatiņš pārbauda tavu pareizrakstību, stilu un gramatiku.
... nevis tas mākslīgais intelekts


Jauns ziņojums
info@serviss.lv
Temats
Labdien,
Vēlētos pieteikt bojājumu, dēļ kura radušies papildus izdevumi
Stila kļūda:
kura dēļ radušies papildus izdevumi
Pieņemt
Noraidīt
Sans Serif
Sūtīt

evalds@asya.ai