

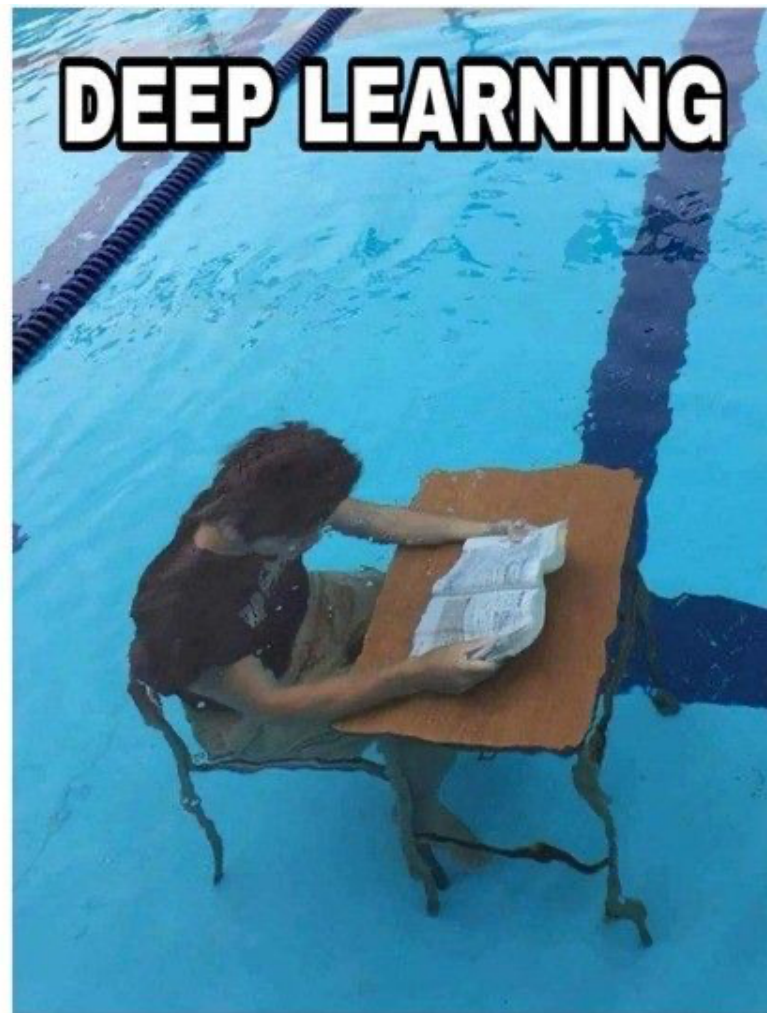


Mākslīgais intelekts - meistarklase

Kas ir mākslīgais intelekts?



Kas ir mākslīgais intelekts?

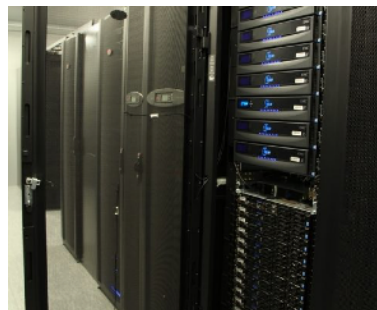
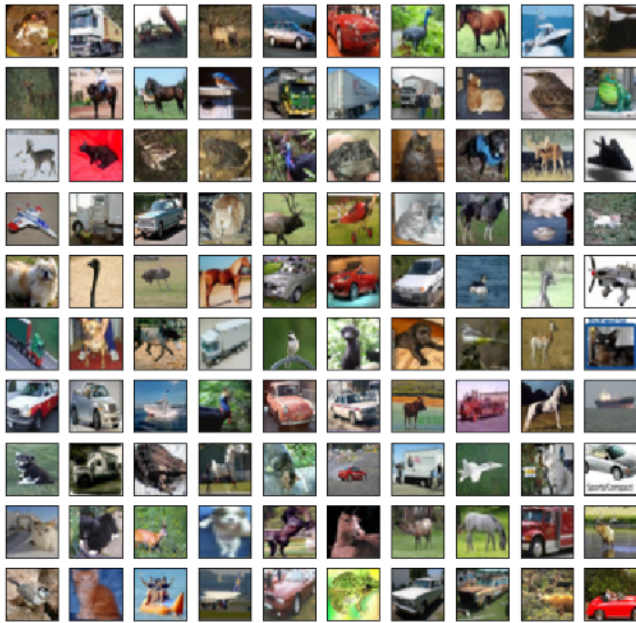


Kas ir mākslīgais intelekts?

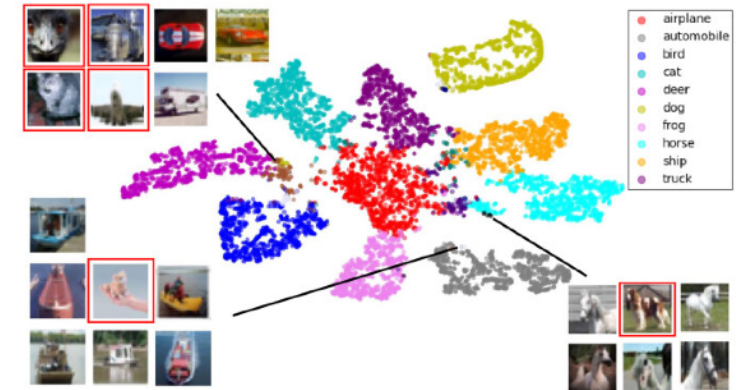


$$\begin{aligned}i_t &= \sigma(W_i * [\mathcal{X}_t, \mathcal{H}_{t-1}] + b_i) \\f_t &= \sigma(W_f * [\mathcal{X}_t, \mathcal{H}_{t-1}] + b_f) \\e_{t,z} &= V_e \cdot \tanh(W_e * [\mathcal{X}_{t,z}, \mathcal{H}_{t-1}] + b_e) \\\alpha_{t,z} &= \frac{\exp(e_{t,z})}{\sum_{j=1}^{\tau} \exp(e_{t,j})} \\p_t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

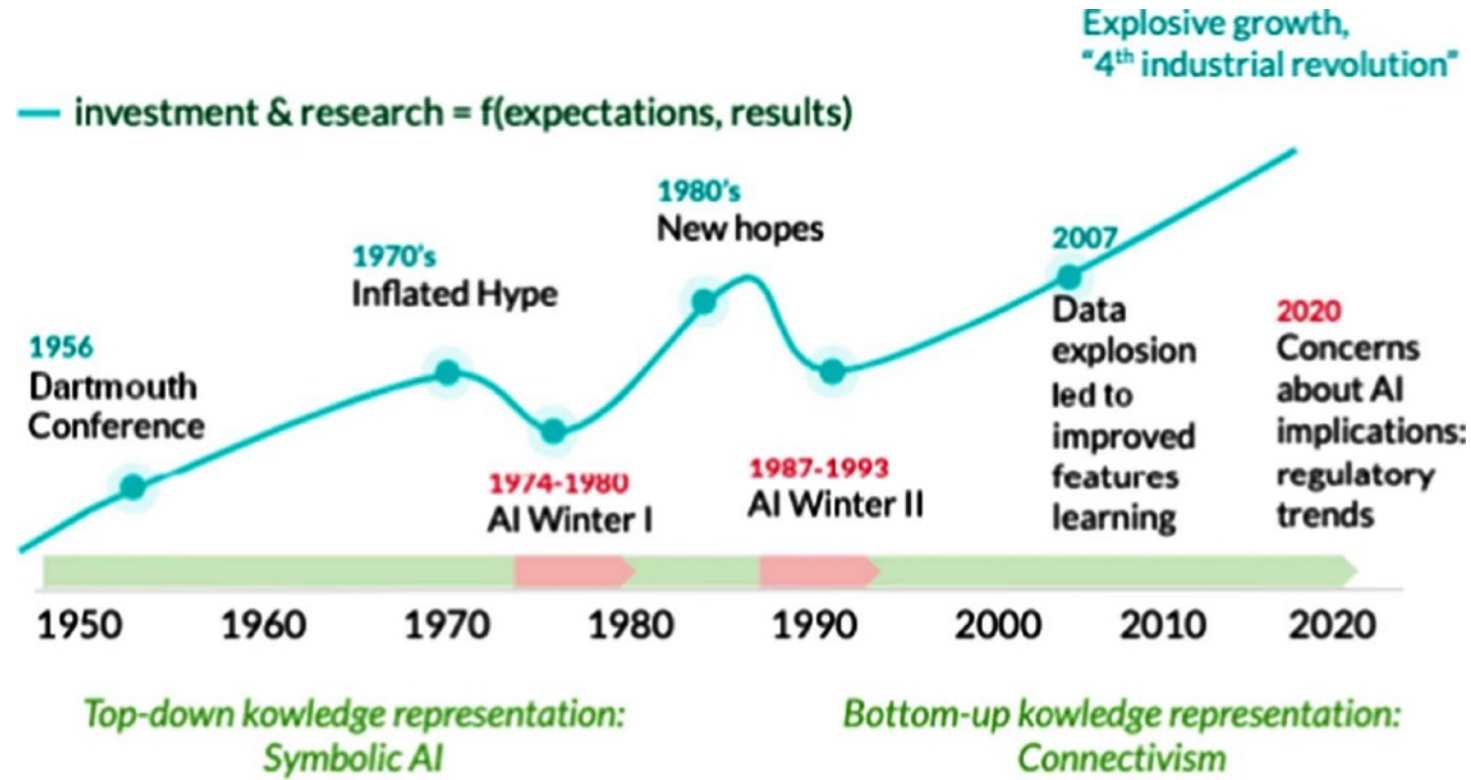
Kas ir mākslīgais intelekts?



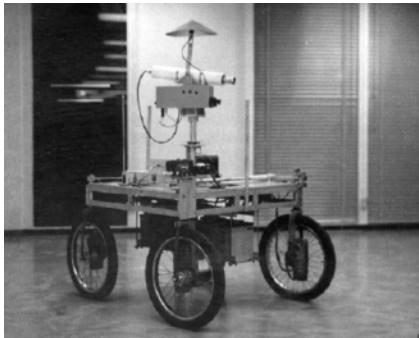
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Vēsture



Hans Moravec's Robots,
1975



Tesla FSD,
2023



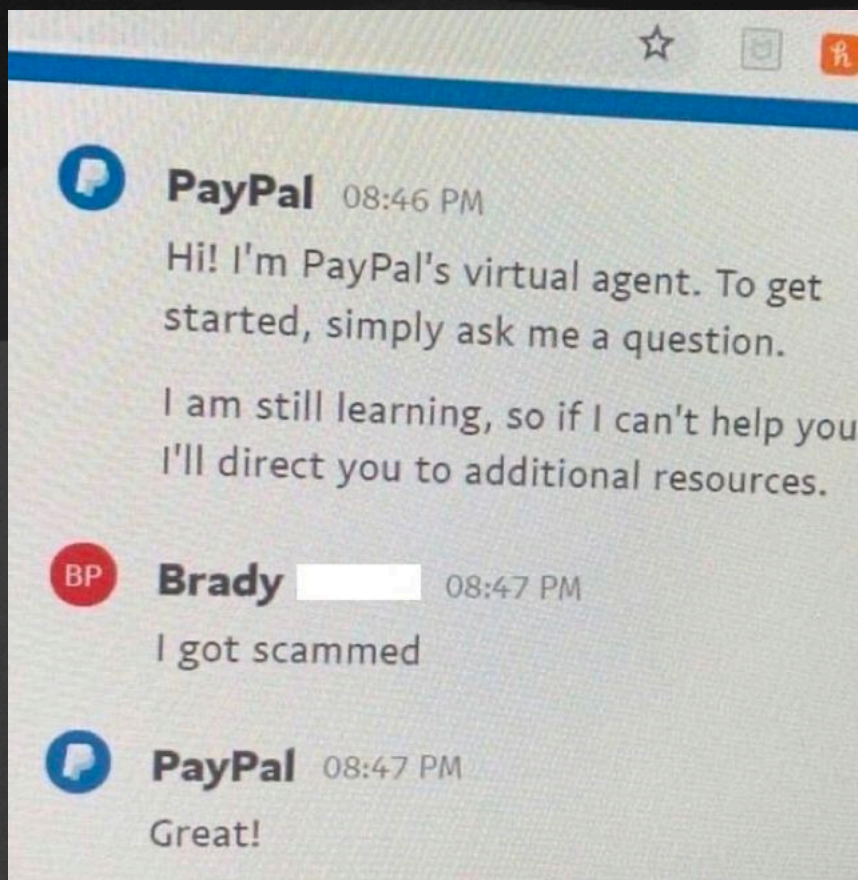
Jaunā elektrība

Pasaules Expo, 1893



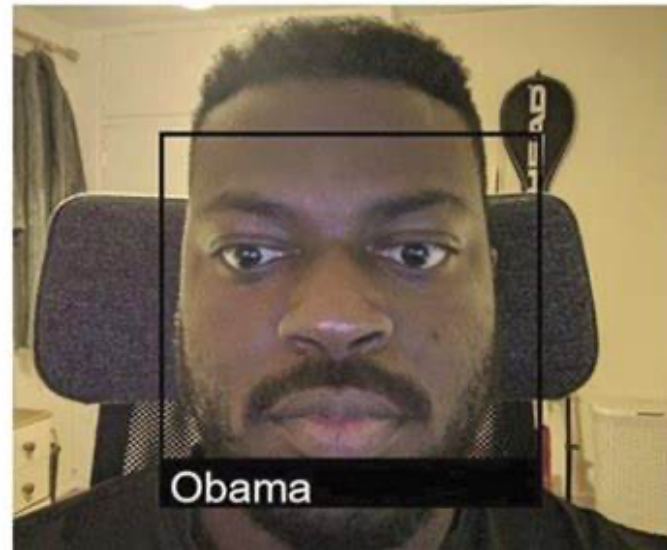
Jaunā elektrība

Ja neliek pirkstu rozetē..



Them: "AI is going to take over the world and kill us"

Meanwhile AI:



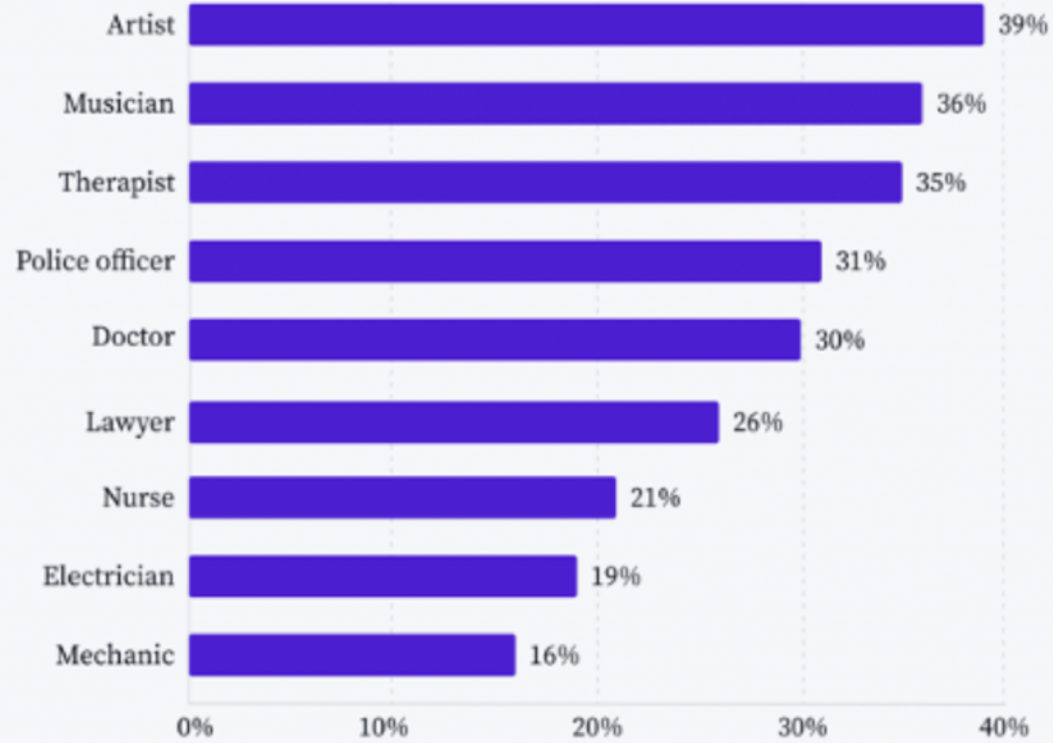
People with no idea about AI, telling me my AI will destroy the world

Me wondering why my neural network is classifying a cat as a dog..

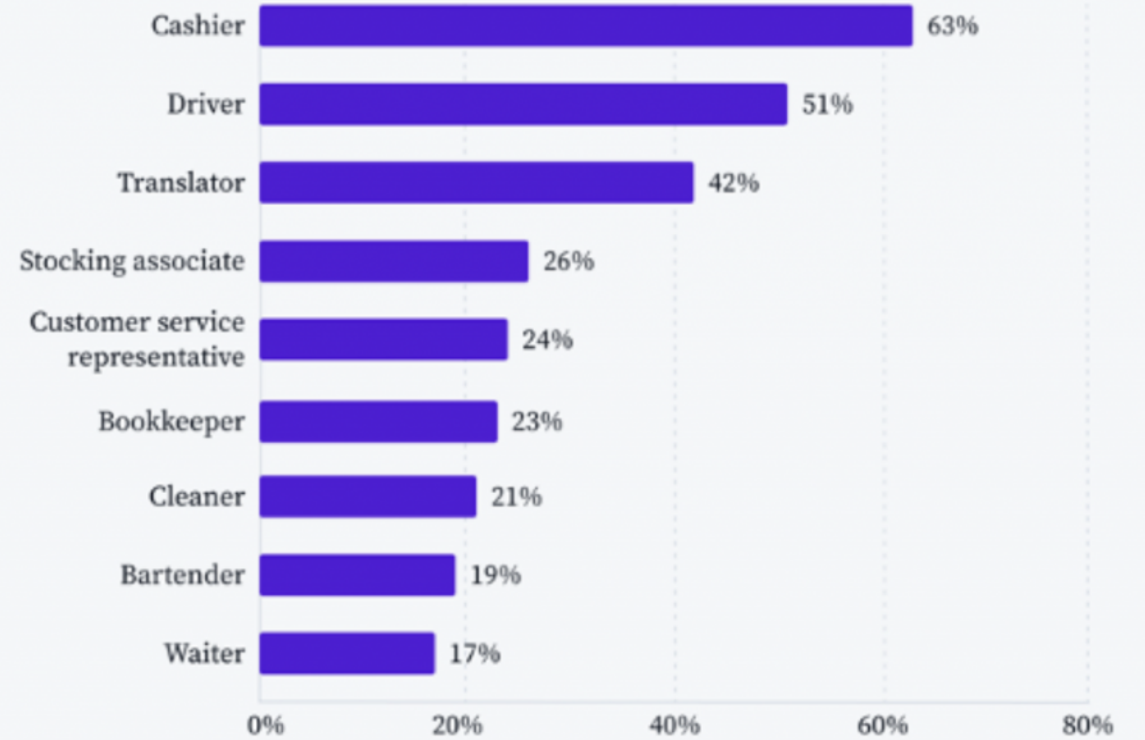


Pirms GenAI

Jobs least likely to be taken over by AI

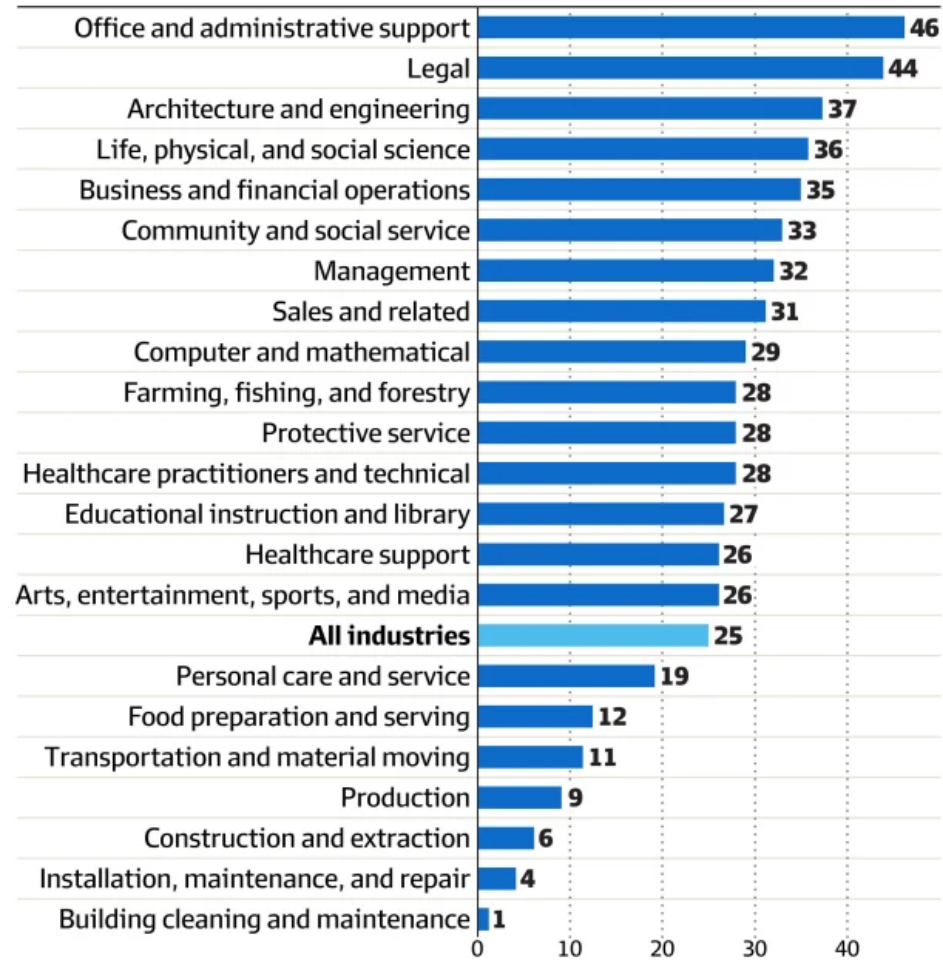


Jobs most likely to be taken over by AI

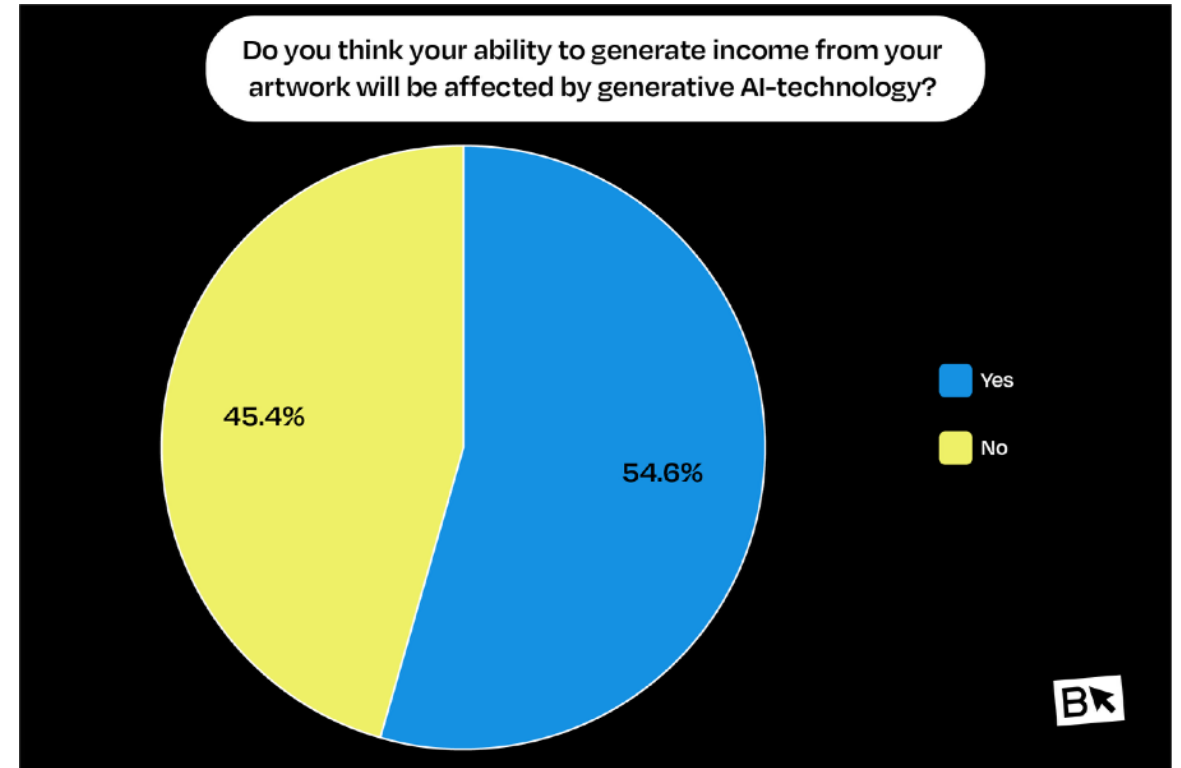


Pēc GenAI

Share of industry employment exposed to automation by AI, US (%)



SOURCE: GOLDMAN SACHS



Apple struck deal with Shutterstock to license millions of images for AI training



Benjamin Mayo | Apr 6 2024 - 7:54 am PT | 21 Comments

Crypto prognoze

Nepredzami procesi



Piegādes

Nerentabli risinājumi



10 gadi
200m EUR

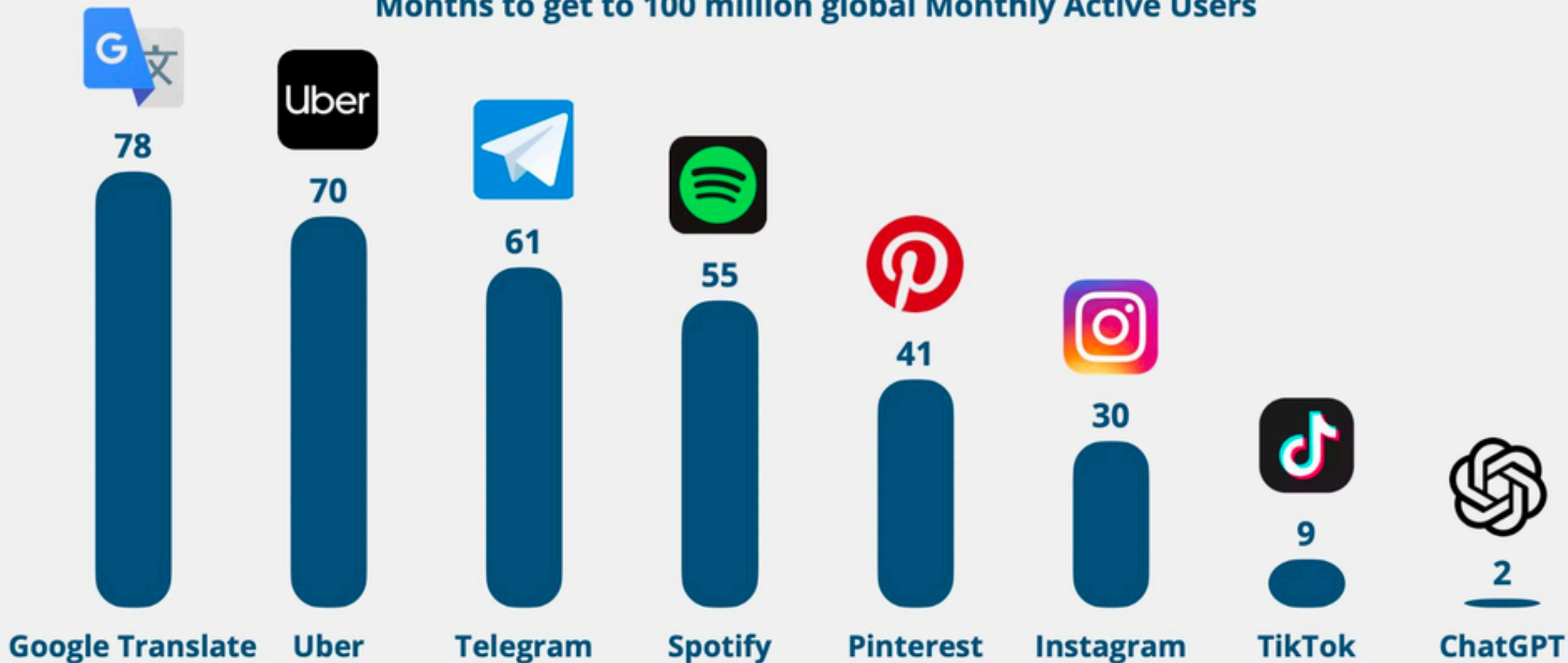
STARSHIP

ChatGPT



Time to Reach 100M Users

Months to get to 100 million global Monthly Active Users

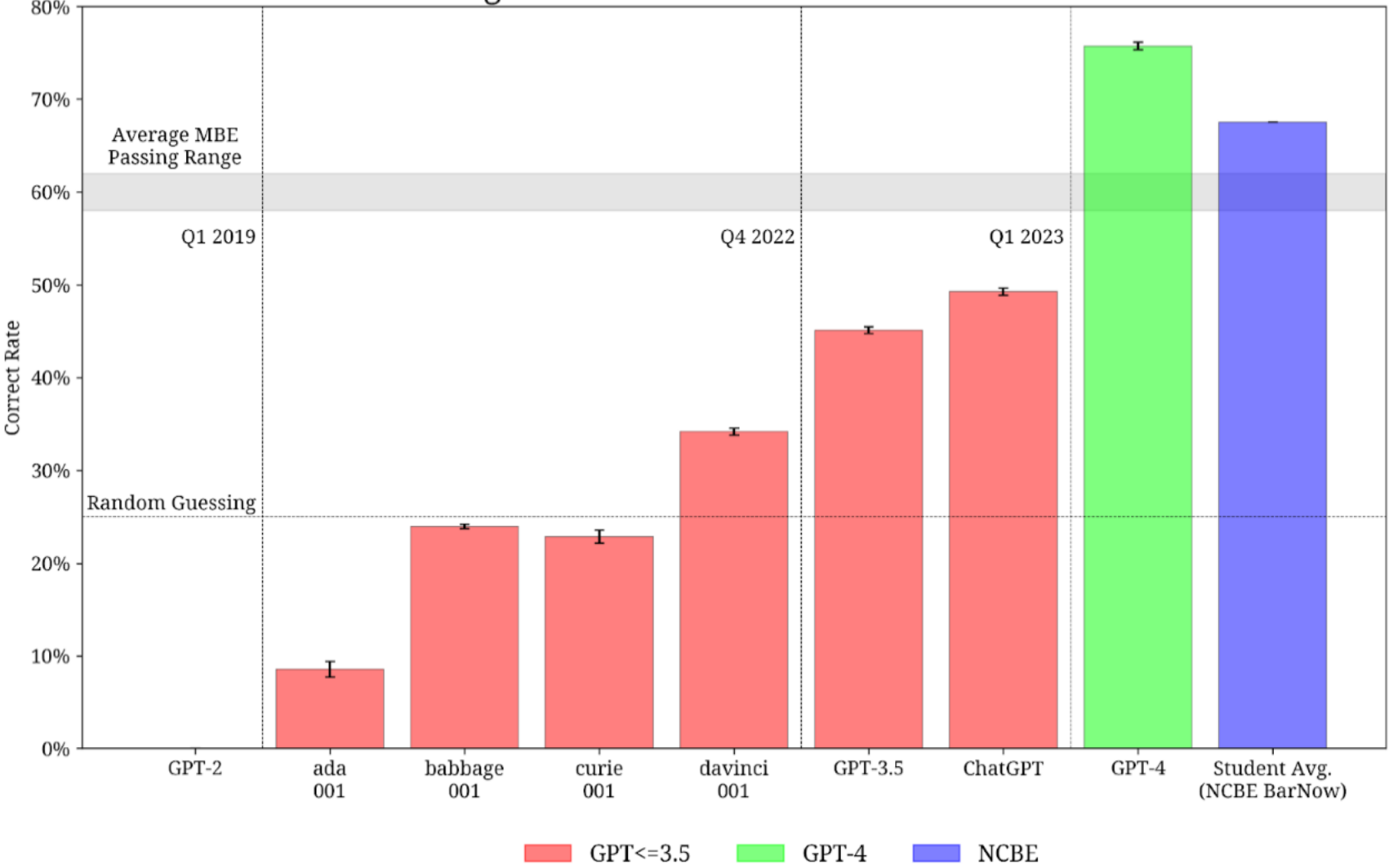


Source: UBS / Yahoo Finance

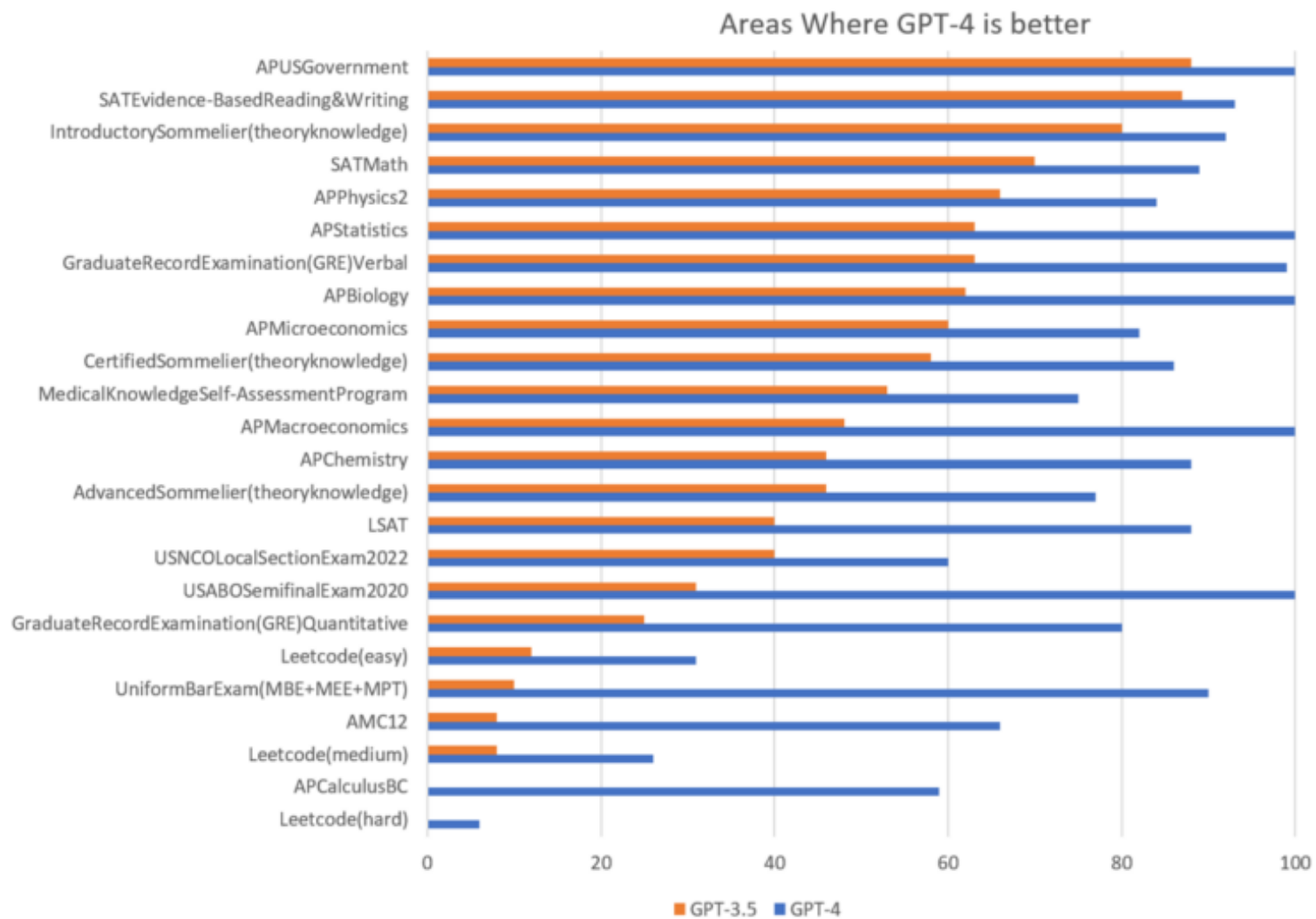
 @EconomyApp

 APP ECONOMY INSIGHTS

Progression of GPT Models on the MBE



GPT-3.5 vs GPT-4



Model

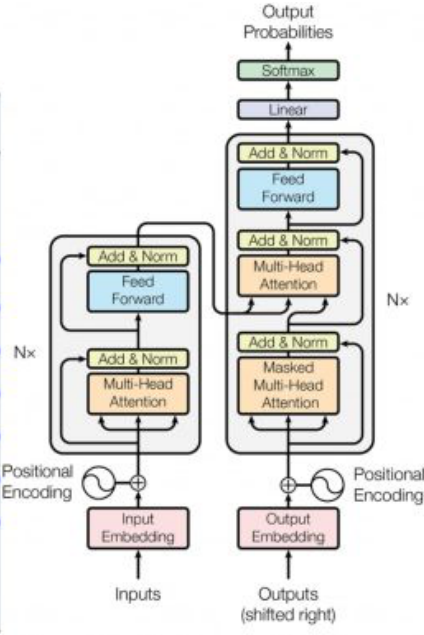
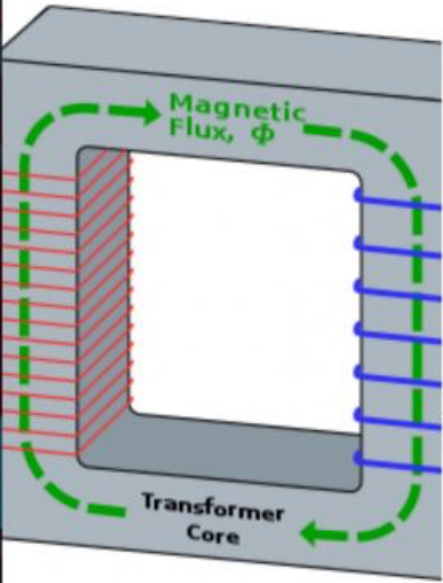
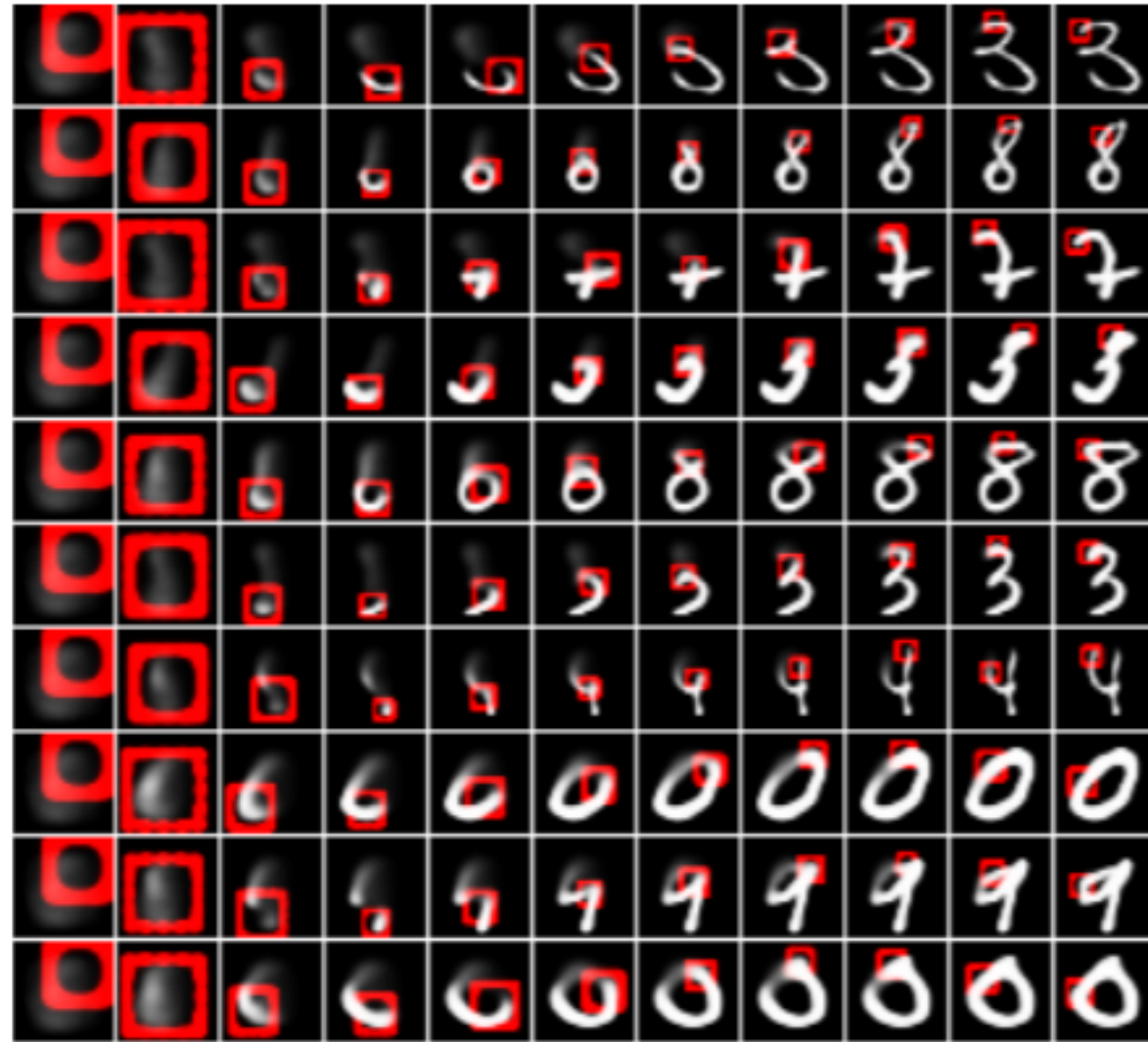


Figure 1: The Transformer - model architecture.

Transformers
at school

Transformers
at college

Transformers
today



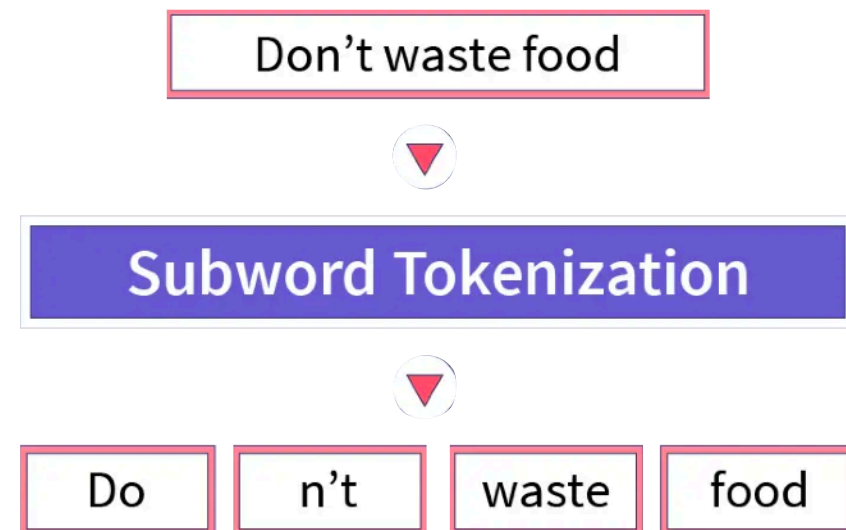
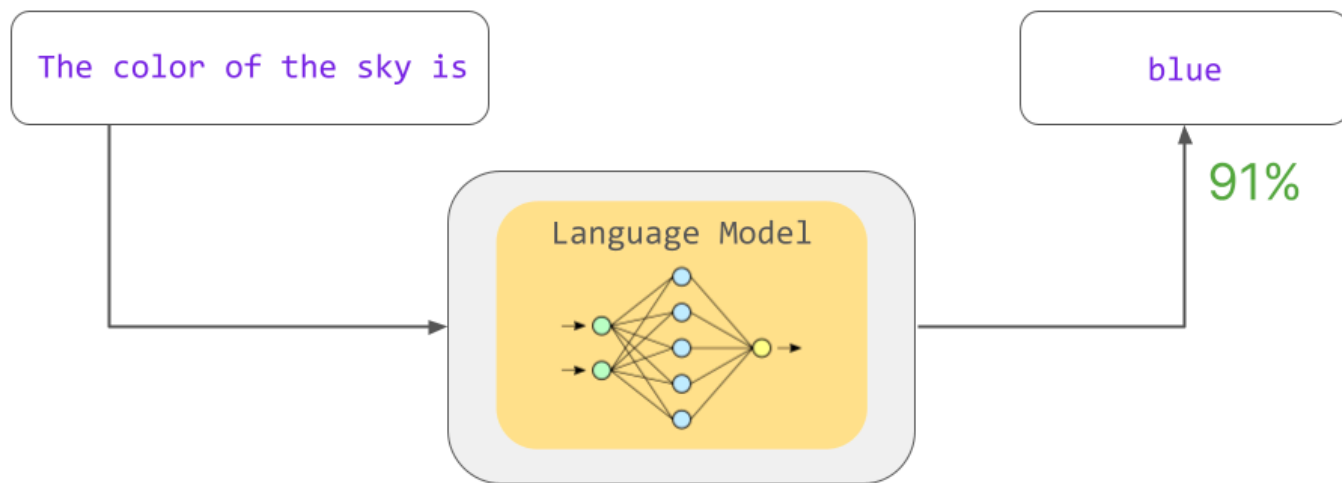
Time →

Transformer

The FBI is chasing a criminal on the run .
The FBI is chasing a criminal on the run .
The FBI is chasing a criminal on the run .
The FBI is chasing a criminal on the run .
The FBI is chasing a criminal on the run .
The FBI is chasing a criminal on the run .
The FBI is chasing a criminal on the run .
The FBI is chasing a criminal on the run .
The FBI is chasing a criminal on the run .

- BERT (Google), GPT (OpenAI), 2018
- ~8k tokens** (or tradeoffs, 100k)
3000 vārdi
- CommonCrawl, Wikipedia, Reddit

Valodas modelēšana



Transformeris

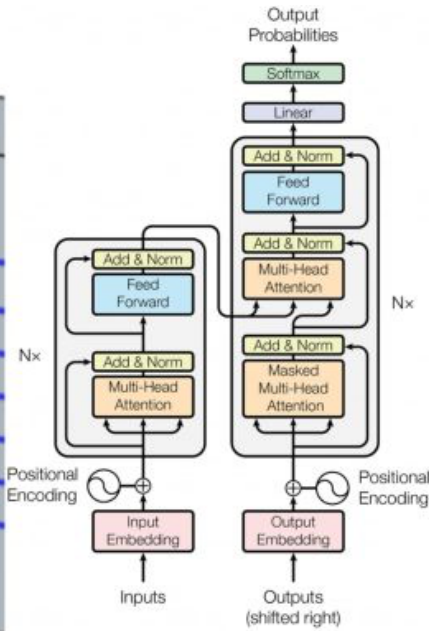
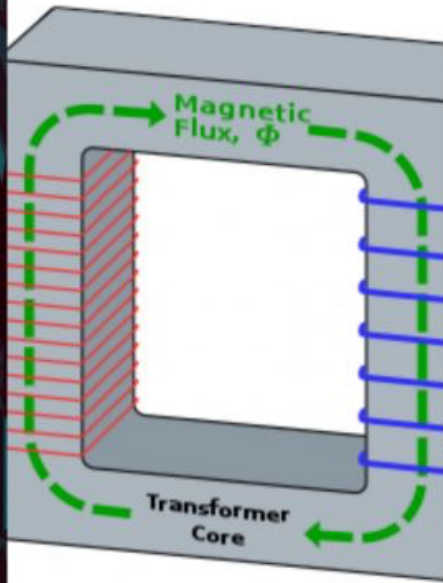


Figure 1: The Transformer - model architecture.

Transformers
at school

Transformers
at college

Transformers
today

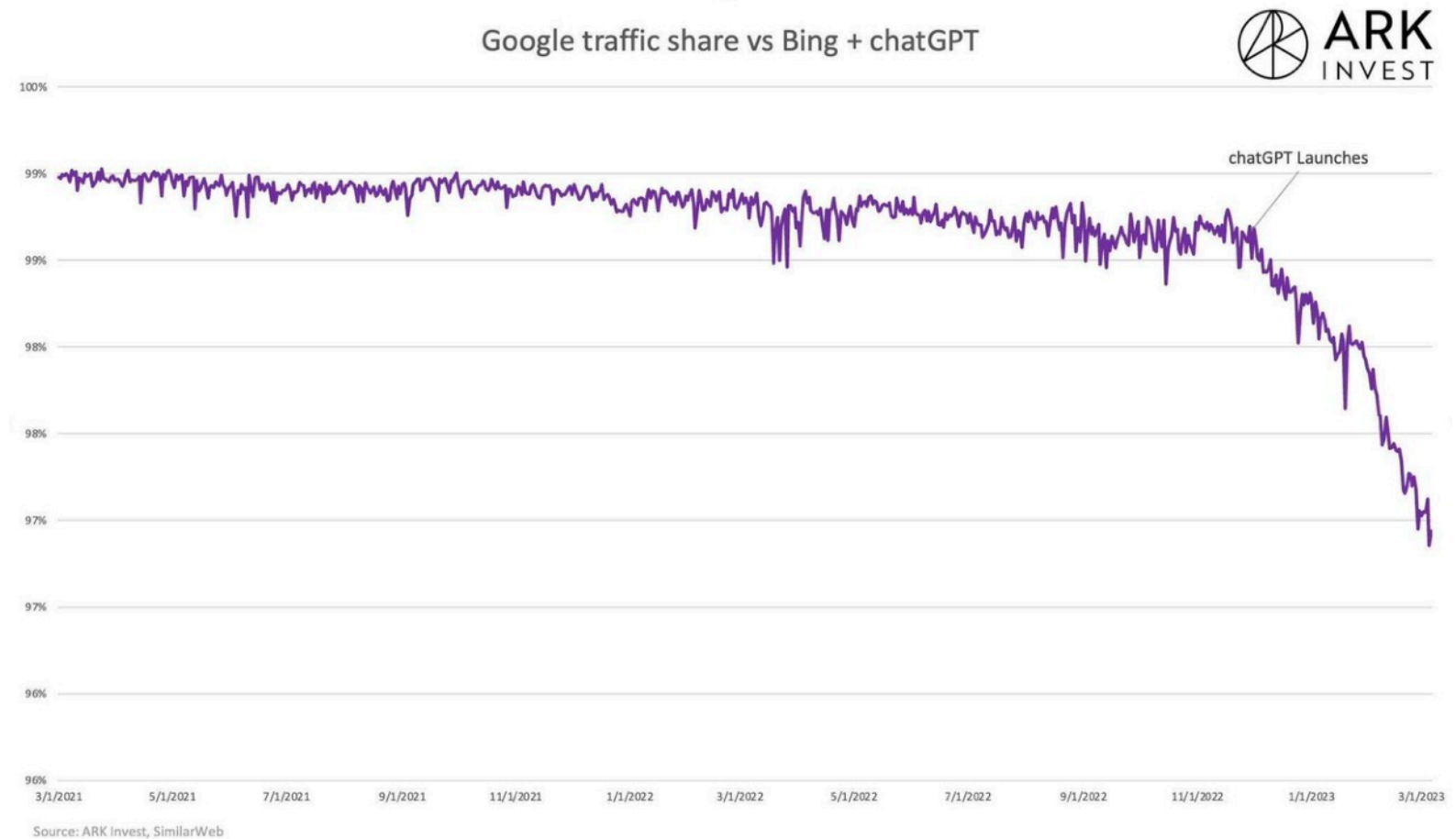
Rīki

1. AI meklētāji
2. AI Ģeneratīvie rīki (ChatGPT)
3. AI Specializētie rīki



AI Meklētāji

- **chat.bing.com**
- **perplexity.ai**
- **chat.you.com**
- **Google Bard**
- **Anthropic Claude VPN**



Meklētāju demo



Uzdevumi.lv demo



Ģeneratīvai rīks chat.openai.com

Jautājums Latvijas vēsturē:

"Apraksti agrāro reformu tās ieguvumus un negatīvās sekas? Vai šādu reformu varētu veikt mūsdienās, kāpēc?"



Generatīvai rīks chat.openai.com

Jautājums Latvijas vēstures eksāmenā: "Apraksti agrāro reformu tā ieguvumus un negatīvās sekas? Vai šadu reformu varētu veikt mūsdienās, kāpēc?"

Write the Answer in "1 paragraph" using "Factual references":



Latvijas agrāro reformu, kas tika veikta 1920. gados, var raksturot kā nozīmīgu notikumu, kas atstāja būtisku ietekmi uz valsts ekonomiku un sabiedrību. Šī reforma bija vērsta uz zemes pārdali, ar mērķi mazināt sociālo nevienlīdzību un veicināt lauku saimniecības attīstību, tādējādi ieguvumi bija būtiski, piemēram, nodrošinot plašākām sabiedrības slāņiem pieeju zemes īpašumam un stimulējot lauksaimniecības produkcijas pieaugumu. Tomēr, reforma rada arī dažādas negatīvās sekas, piemēram, dažādas administratīvās un birokrātiskās problēmas, kā arī noveda pie sociālās nestabilitātes dažās jomās, kur, piemēram, lielie zemes īpašnieki zaudēja ievērojamu daļu no saviem īpašumiem. Attiecībā uz iespēju veikt līdzīgu reformu mūsdienās, tas prasītu nopietnu sabiedrības un ekonomiskās struktūras analīzi. Mūsdienu globalizētā ekonomikā un atšķirīgā sabiedriskā kontekstā agrārās reformas īstenošana būtu sarežģīta, ņemot vērā arī tirgus ekonomikas nosacījumus, Eiropas Savienības politiku un likumdošanu, kā arī mūsdienu tehnoloģiju ietekmi uz lauksaimniecības sektoru. Tāpēc, šāda reforma mūsdienās prasītu plašu pētījumu un rūpīgu plānošanu, lai nodrošinātu tās ilgtspēju un pozitīvu ietekmi uz valsts attīstību.



Meklēšanas rīks chat.bing.com



Meklēšanas rīks chat.bing.com

* Patiesas atsauces

Microsoft Bing SEARCH CHAT

Choose a conversation style [Preview](#)

[More Creative](#) [More Balanced](#) [More Precise](#)

[Agrārā reforma Latvijā, fakti kā saraksts](#)

✓ Searching for: **Agrārā reforma Latvijā, fakti kā saraksts**

✓ Generating answers for you...

Šeit ir daži fakti par agrāro reformu Latvijā kā saraksts:

- Agrārā reforma Latvijā tika uzsākta 1920. gadā un noslēdzās 1937. gadā ¹.
- Reformas mērķis bija pārveidot zemes īpašuma sistēmu, nacionalizējot lielsaimniecības, tostarp muižas, un sadalot iegūto zemi starp valsts iedzīvotājiem ^{1 2}.
- Reformas rezultātā tika atsavinātas 1479 muižas, 171 mācītājmuižas, 294 pusmuižas, 202 lauku saimniecības un citi zemes gabali, kopumā 3 396 815 ha zemes ³.
- Reformas laikā tika izveidotas 93 000 jaunu saimniecību un paplašinātas 70 000 esošo sīksaimniecību ².
- Reforma veicināja lauksaimniecības attīstību, zemnieku pašapziņu un nacionālo identitāti ^{2 4}.

Learn more: [1. lv.wikipedia.org](#) [2. uzdevumi.lv](#) [3. vesture.eu](#) [+2 more](#) 1 of 30 ●

[?](#) Kāda bija agrārā reformas ietekme uz Latvijas ekonomiku?

Vai kaut kas tika atstāts muižniekiem pēc reformas? [Cik daudz zemes saņēma katrs lauksaimnieks?](#)

Ask me anything...

0/4000

Meklēšanas rīks perplexity.ai

The screenshot displays the Perplexity AI search interface. On the left is a sidebar with navigation options: 'New Thread', 'Home', 'Discover', and 'Library'. The 'Library' section is active, showing a list of search results including 'History exam about...', 'History exam in Europe...', 'logic puzzles that...', 'study to compare...', 'online demo for...', 'list of top credit scorin...', 'subprime credit scorin...', and 'python utf encoding...'. The main content area shows the search results for the query 'History exam about 1920ies in UK for 12th grade, list questions and answers examples'. It includes a 'Sources' section with six items: '[PDF] STUDENT SUPPORT MATERIAL...' (1 source), '20 Questions: U.S. Presidential Trivia Qui...' (2 sources), 'World History Quizzes | Britannica' (3 sources), '[PDF] 10000 general knowledge questions...' (4 sources), '250+ History Trivia Questions and...' (5 sources), and '[PDF] 12th Grade English Worksheet...' (6 sources). Below the sources is an 'Answer · Claude-2' section. The answer text reads: 'Here are some potential exam questions and sample answers for a 12th grade history exam about the 1920s in the UK:'. This is followed by a section titled 'The Economic Situation' and a sub-section 'Potential Questions' with three bullet points: 'What was the economic situation like in Britain in the 1920s?', 'How did the economy change after World War I?', and 'What major industries drove the British economy in the 1920s?'. Below that is a 'Sample Answers' section with two bullet points: 'The British economy went through a depression immediately after World War I, but experienced a post-war boom starting around 1922. Major new industries like automobiles, electrical goods, and new building construction grew rapidly' and 'After World War I, Britain shifted from an economy centered around coal, iron, and textile industries to new industries like automobiles, airplanes, electrical goods, and chemicals. The depression gave way to rapid economic growth starting in'. At the bottom, there is a 'Ask follow-up...' input field, a 'Copilot' toggle, and an upward arrow icon.

Meklēšanas rīks > fakti > Generatīvais rīks

Fakti: "Agrārā reforma Latvijā tika uzsākta 1920. gadā un noslēdzās 1937. gadā¹.

Reformas mērķis bija pārveidot zemes īpašuma sistēmu, nacionalizējot lielsaimniecības, tostarp muižas, un sadalot iegūto zemi starp valsts iedzīvotājiem².

Reformas rezultātā tika atsavinātas 1479 muižas, 171 mācītājmuižas, 294 pusmuižas, 202 lauku saimniecības un citi zemes gabali, kopumā 3 396 815 ha zemes³.

Reformas laikā tika izveidotas 93 000 jaunu saimniecību un paplašinātas 70 000 esošo sīksaimniecību².

Reforma veicināja lauksaimniecības attīstību, zemnieku pašapziņu un nacionālo identitāti²⁴."

Jautājums Latvijas vēstures eksāmenā: "Apraksti agrāro reformu tā ieguvumus un negatīvās sekas? Vai šādu reformu varētu veikt mūsdienās, kāpēc?"

Write the Answer in "1 paragraph" using "Factual references":

Meklēšanas rīks > fakti > Generatīvais rīks

Agrārā reforma Latvijā, kas norisinājās no 1920. līdz 1937. gadam, bija vēsturiski nozīmīgs notikums, kas radikāli pārveidoja valsts zemes īpašuma sistēmu un lauksaimniecības struktūru. Reformas būtiskākais ieguvums bija saistīts ar tās mērķi veicināt vienlīdzīgāku zemes piederību un stiprināt nacionālo identitāti, kas tika sasniegts, nacionalizējot un sadalot iepriekšējo muižniecības zemi (tika atsavinātas 1479 muižas un kopumā 3 396 815 ha zemes) starp iedzīvotājiem, kā rezultātā radās 93 000 jaunas saimniecības un paplašinājās 70 000 esošas sīksaimniecības¹²³. Tomēr, reforma radīja arī negatīvas sekas, tostarp potenciālus konfliktus par zemes piešķiršanu, nelīdzsvarotību starp produktīvām un mazāk produktīvām saimniecībām, kā arī iespējamus izaicinājumus saistībā ar jauno zemes saimnieku apmācību un tehnoloģisko atjaunināšanu. Ņemot vērā šos aspektus, mūsdienās šāda veida reforma būtu jāveic ļoti apdomāti un piesardzīgi, lai nodrošinātu ilgtspējīgu lauksaimniecības attīstību, sociālo taisnīgumu un ekonomikas stabilitāti, piemēram, izmantojot sociālekonomiskos modeļus un konsultācijas ar ieinteresētajām pusēm, lai mazinātu iespējamo negatīvo ietekmi.



Meklēšanas rīks > konteksts > fakti > paraugi > Generatīvais rīks

EV

Context: Jautājums Latvijas vēstures eksāmenā



Facts: "Agrārā reforma Latvijā tika uzsākta 1920. gadā un noslēdzās 1937. gadā1.

Reformas mērķis bija pārveidot zemes īpašuma sistēmu, nacionalizējot lielsaimniecības, tostarp muižas, un sadalot iegūto zemi starp valsts iedzīvotājiem12.

Reformas rezultātā tika atsavinātas 1479 muižas, 171 mācītājmuižas, 294 pusmuižas, 202 lauku saimniecības un citi zemes gabali, kopumā 3 396 815 ha zemes3.

Reformas laikā tika izveidotas 93 000 jaunu saimniecību un paplašinātas 70 000 esošo sīksaimniecību2.

Reforma veicināja lauksaimniecības attīstību, zemnieku pašapziņu un nacionālo identitāti24."

Example Questions: "What major political events occurred in Britain in the 1920s?"

How did the Labour Party grow in the 1920s?

What political conflicts emerged in the 1920s?"

Example Answers: "The Labour Party grew rapidly to become the main opposition party. However, the Conservatives dominated politics throughout the 1920s under Stanley Baldwin

The Labour Party expanded as a political force representing the working class. However, Conservatives controlled the government for most of the decade, though Labour briefly held power in 1924

Labour surpassed the Liberals to become the second largest party, reflecting working class political power. However, Conservative Stanley Baldwin was Prime Minister for most of the decade. Political conflicts emerged over issues like trade unions and unemployment"

Question: "Apraksti agrāro reformu tā ieguvumus un negatīvās sekas? Vai šādu reformu varētu veikt mūsdienās, kāpēc?"

Write the Answer in "1 paragraph" using "Factual references":

Meklēšanas rīks > konteksts > fakti > paraugi > Generatīvais rīks



Agrārā reforma Latvijā (1920.-1937.) bija būtisks solis valsts ekonomiskajā un sociālajā attīstībā, nodrošinot plašu zemju redistribūciju un veicinot zemnieku šķiras pacelšanos un pašapziņu, kā arī stiprinot nacionālo identitāti^{2,4}. Reforma, atsavinot un sadalot zemes platības, tostarp 1479 muižas un 171 mācītājmuižas, radīja 93 000 jaunu saimniecību un paplašināja 70 000 esošo sīksaimniecību^{2,3}. Tomēr, neskatoties uz šiem pozitīvajiem aspektiem, reforma varētu arī raisīt jautājumus par tās ilgspēju un taisnīgumu, jo īpaši attiecībā uz bijušo muižu īpašniekiem un to, kā šī reforma ietekmēja sociālo un ekonomisko dinamiku ilgtermiņā. Mūsdienu kontekstā līdzīgu reformu veikt būtu sarežģīti, ņemot vērā globalizēto ekonomiku, privātīpašuma tiesību aizsardzību un tirgus orientētu politiku. Tomēr zemes reformas un pārdale var būt aktuālas debašu tēmas saistībā ar nevienlīdzību un ilgspējīgu attīstību daudzās pasaules daļās, jo īpaši ņemot vērā globālās klimata pārmaiņas un to ietekmi uz lauksaimniecību un pārtikas drošību.



Improvizācijas teātris



Attēls ģenerēts ar MidJourney

**ChatGPT =
Valodas formatētājs**



Language Models are Few-Shot Learners

2020. gads
"Fundamentāla publikācija",
OpenAI

The three settings we explore for in-context learning

Zero-shot

The model predicts the answer given only a natural language description of the task. No gradient updates are performed.

```
1 Translate English to French: ← task description
2 cheese => ..... ← prompt
```

One-shot

In addition to the task description, the model sees a single example of the task. No gradient updates are performed.

```
1 Translate English to French: ← task description
2 sea otter => loutre de mer ← example
3 cheese => ..... ← prompt
```

Few-shot

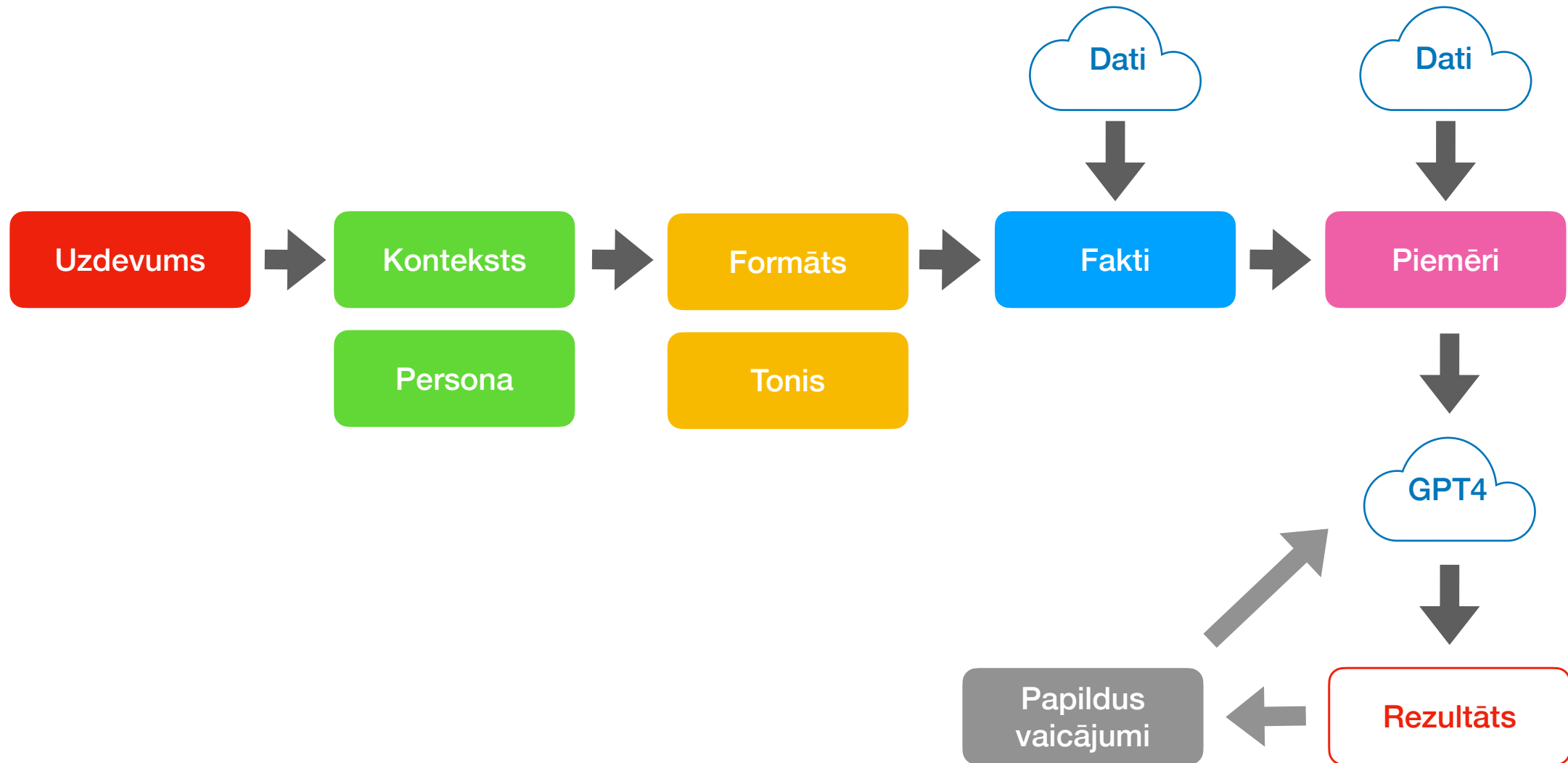
In addition to the task description, the model sees a few examples of the task. No gradient updates are performed.

```
1 Translate English to French: ← task description
2 sea otter => loutre de mer ← examples
3 peppermint => menthe poivrée ←
4 plush girafe => girafe peluche ←
5 cheese => ..... ← prompt
```

Vaicājumu inženierijas "LEGO gabaliņi"



Vaicājumu inženierija "LEGO gabaliņi"



Likumi

1. Katru vaicājumu sēriju **jaunā sesijā**
2. Uzdevumu un atslēgas vārdus rakstīt **angliski**
3. Uzdevuma daļu sāk ar **darbības vārdu**
4. Teminus un atslēgas vārdus rakstīt ar **Lieliem Sākuma Burtiem**
5. Vairāku vārdu faktus, piemērus, "**Atslēgas Vārdus**" atdalīt ar **pēdiņām**
6. Izlabot **gramatikas kļūdas**
7. **Strukturēt** vaicājumu
8. Pievienot pēc iespējas vairāk **Faktus** un **Piemērus**
9. **Limitēt fromatējumu** vaicājumā
10. Apzināties **lerobežojumus**



Attēls ģenerēts ar DALL-E

Konteksts, Persona

Here is a list of examples that can be used as context in prompts for GPT-4:

- Business case studies
- Sample emails/letters for a specific purpose (e.g. sales pitch, job application)
- Code snippets in a particular programming language
- Quotes or passages from books/articles on a certain topic
- Dialogue examples for customer service chatbots
- Recipe ingredients and instructions for generating cooking recipes
- Lyrics samples for songwriting
- Architectural drawings/sketches for generating building designs
- Financial statements for business/accounting tasks
- Scientific data and research paper excerpts for science writing
- Transcripts of speeches/presentations for summarization tasks
- Social media post samples for content generation
- Photographs for image captioning/description
- Movie/book plots for story generation

Marketing/Creative

- Act as an experienced copywriter and write a compelling headline and ad copy for a new product launch.
- You are a creative director for an ad agency. Provide 3 unique social media campaign ideas for Client X's new product.

Career Coach

- I am preparing for a job interview as a software engineer at Company X. Act as an experienced career coach and provide tips to help me effectively prepare.
- I am a recent college graduate struggling to decide on a career path. Act as a career counselor and provide advice.

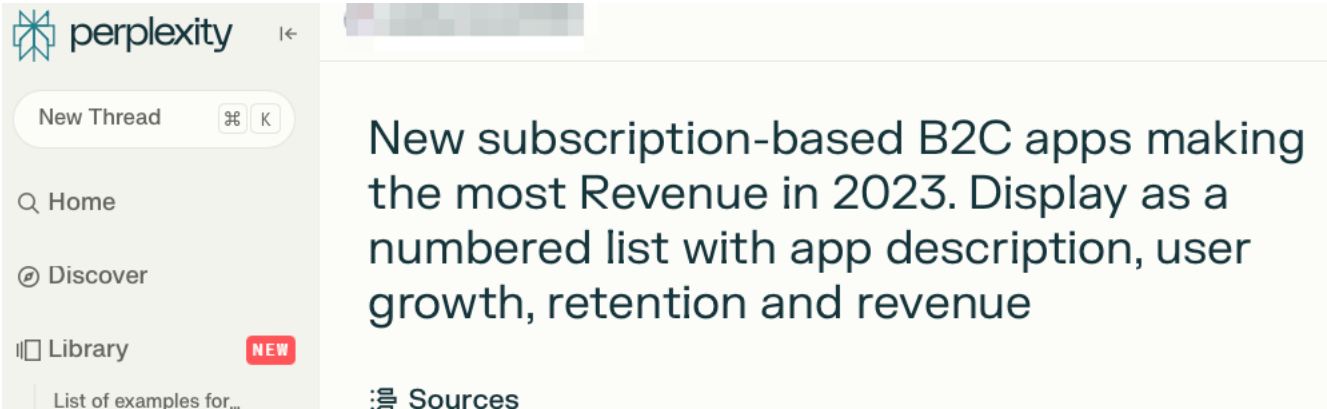
Technical Expert

- Act as an experienced Python developer. I need help debugging this code snippet [provide code]. Explain the issue and provide a solution.
- Pretend you are a master electrician. Provide steps for how to properly wire a light switch.

Bonus: Act as Steve Jobs in a Role as "Innovation Officer" at Apple preparing a Report to evaluate new product proposals.

character.ai

Fakti



- 1. Calm (Meditation)**
 - Description: Meditation and sleep app helping users reduce anxiety, stress and improve sleep.
 - User Growth: Over 100 million downloads, up 30% from 2022.
 - Retention Rate: 65% after first year.
 - Revenue: Projected to exceed \$250 million in 2023, up 25% from 2022.
- 2. Noom (Weight Loss)**
 - Description: Uses psychology-based programs to promote healthy eating and weight loss.
 - User Growth: Over 50 million signups in 2022, up 20% from 2021.
 - Retention Rate: 55% after first year.
 - Revenue: Expected to surpass \$500 million in 2023.
- 3. WW (Weight Watchers Reimagined)**
 - Description: Offers food tracking, recipes, workouts and coaching for weight loss.
 - User Growth: 4.6 million subscribers in 2022.
 - Retention Rate: 60% after first year.
 - Revenue: Projected revenue of \$1.1 billion in 2023.
- 4. Peloton (Connected Fitness)**
 - Description: Offers streaming exercise classes across different disciplines like cycling, running, strength training etc.
 - User Growth: Over 6 million members, up 10% from 2022.
 - Retention Rate: 70% after first year.
 - Revenue: Expected to generate over \$3.5 billion in 2023.
- 5. Duolingo (Language Learning)**

Paraugi

The screenshot shows a Perplexity search interface. The main heading is "Example report of evaluation of new B2C apps, best practices". Below the heading is a "Sources" section with six cards, each representing a source with a logo and a count:

- SEO Evaluation for B2C Commerce - Salesfor... (salesforce · 1)
- Top 51 Important Mobile App KPIs to... (uxcam · 2)
- Customer-Facing Apps: Examples... (mendix · 3)
- Guide to Gap Analysis with Examples |... (smartsheet · 4)
- B2B vs. B2C Websites: Key UX Differences -... (nngroup · 5)
- Market Segmentation: Definition, Types... (qualtrics · 6)

App C

- User growth rate of 3% ² per month. App store optimization drives organic downloads.
- Good retention rate of 45% ², but room for improvement via better onboarding.
- Average rating of 3.8 stars with 50+ reviews ². Users cite some UI/UX frustrations.
- Average load time of 3 seconds ², which meets expectations.
- Moderate integration with existing systems, but gaps limit functionality.

Best Practices

Based on this evaluation, key best practices for B2C mobile apps include:

- Optimize for app store discoverability to drive organic downloads ³.
- Focus on excellent UX and reliability to improve retention ² ³.
- Integrate with existing backend systems to enable robust capabilities ³.
- Benchmark and optimize load times to meet user expectations ².
- Monitor ratings and reviews closely to identify issues and improvement opportunities ².
- Use advertising and social media to boost user growth when needed ².

Following these best practices can help new B2C mobile apps succeed by delivering the experience and capabilities users expect. Continually monitoring performance metrics and experimenting to refine the app provides the feedback needed for ongoing improvements.

Rewrite [∨] [📌] ^[] [📄] ^{✍️}

Formatējums, Tonis

List of examples for Formatting Prompts for GPT4 examples like "Write as numbered list", "Write as email" "Write 1-3 lines"

Here are some examples of formatting prompts for GPT-4:

1. Write as numbered list
2. Write as bulleted list
3. Write as email
4. Write as a tweet (280 characters or less)
5. Write 1-3 sentences
6. Write in conversational style
7. Write in formal style
8. Write as if explaining to a child
9. Write as if explaining to an expert
10. Write as if giving a persuasive speech
11. Write as if writing a newspaper article
12. Write as if writing a blog post
13. Write as if having a conversation with a friend
14. Write as if answering an interview question
15. Write as if writing a technical document
16. Write as if writing a research paper

Bonus: Mark changes in the Answer in Bold.

Table, CSV, formalize as code, HTML, Question, Summary, Tweet

1-2 paragraphs

Uzdevums



I left 5 items of clothing out to dry and it took 5 hours.

How long would it take to dry 30 items of clothing?



If 5 items of clothing took 5 hours to dry, then it takes 1 hour to dry 1 item of clothing (5 hours / 5 items = 1 hour/item).

Using this rate:

$30 \text{ items} \times 1 \text{ hour/item} = 30 \text{ hours}$

It would take 30 hours to dry 30 items of clothing, assuming the drying rate remains constant and they don't overlap or affect each other's drying time.



Papildus uzdevumi

Chain of Thought Prompting:

- What is the first logical step we should take to solve this problem?
- What information do we need to identify before moving to the next reasoning step?
- What assumptions can we make based on the information we have so far?
- How can we break down this complex problem into smaller, more manageable sub-problems?
- What is our working hypothesis at this stage of reasoning? How can we test this hypothesis?
- Now that we have solved sub-problem X, how does that help us address sub-problem Y?
- What conclusions can we draw from the chain of reasoning steps so far?

Generated Knowledge Prompting:

- What background knowledge should we generate that is relevant to this problem?
- What key facts and concepts does the model need to know to reason about this problem?
- How can we prompt the model to generate useful knowledge based on the problem context?

1. Chain of thought prompting
2. Tree of thought prompting
3. Maieutic prompting
4. Least-to-most prompting
5. Self-consistency decoding
6. Generated knowledge prompting
7. ReAct
8. Automatic prompting
9. Guidance prompting

Uzdevums

EV

Context: "Time goes the same for all items in the world, and multiple activities can happen at the same time."

Example: "2 socks dry in 2 hours"

Example: "3 socks dry in 2 hours"

Situation: "I left 5 items of clothing out to dry and it took 5 hours."

Question: "How long would it take to dry 30 items of clothing?"



Let's break down the problem step by step:



1. From the first example: 2 socks dry in 2 hours. This means 1 sock dries in 2 hours.
2. From the second example: 3 socks dry in 2 hours. This confirms that time is consistent for all items, as 1 sock still dries in 2 hours.
3. In the situation: 5 items of clothing dry in 5 hours. This implies 1 item of clothing dries in 5 hours.

Given this, we can infer that the drying time is dependent on the item itself and not on the number of items. That is, adding more items doesn't change the drying time for each individual item.

So, if 1 item of clothing takes 5 hours to dry, then:

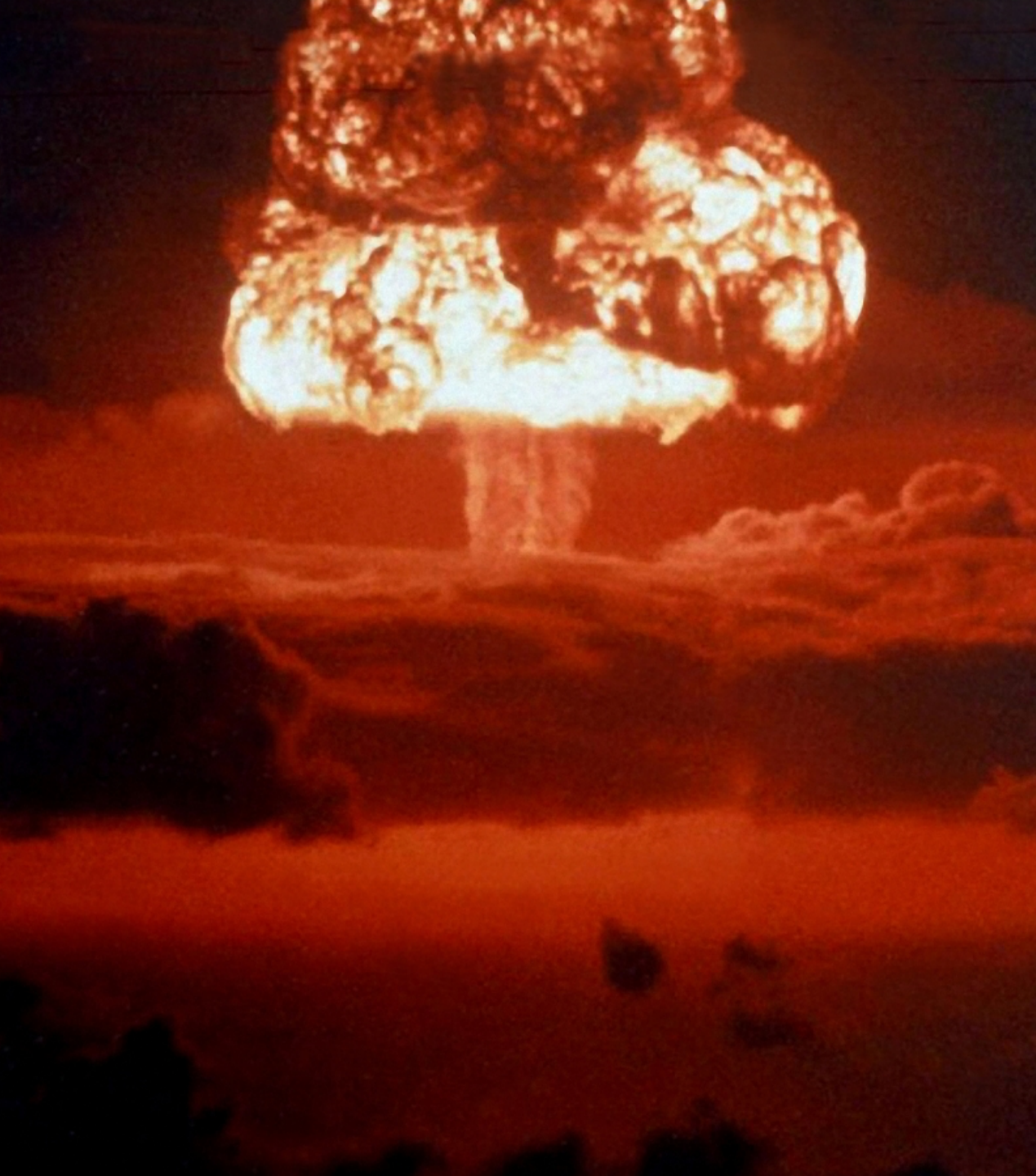
30 items will also take 5 hours to dry when dried simultaneously.

Answer: It would take 5 hours to dry 30 items of clothing.

Grāmatu rakstišana

Here is the list of prompts from the search results:

1. Decide on the genre, themes, and basic premise of your book.
2. Have GPT-4 generate an outline for the book, including chapter titles and summaries.
3. Generate rough drafts of each chapter based on the outline.
4. Have GPT-4 expand the rough drafts into more detailed drafts.
5. Edit the drafts by having GPT-4 improve the writing style, fix inconsistencies, add more details etc.
6. Repeat steps 4-5 for each chapter until you are satisfied with the drafts.
7. Have GPT-4 generate a complete manuscript by combining the edited chapter drafts.
8. Manually review, edit and polish the full manuscript.



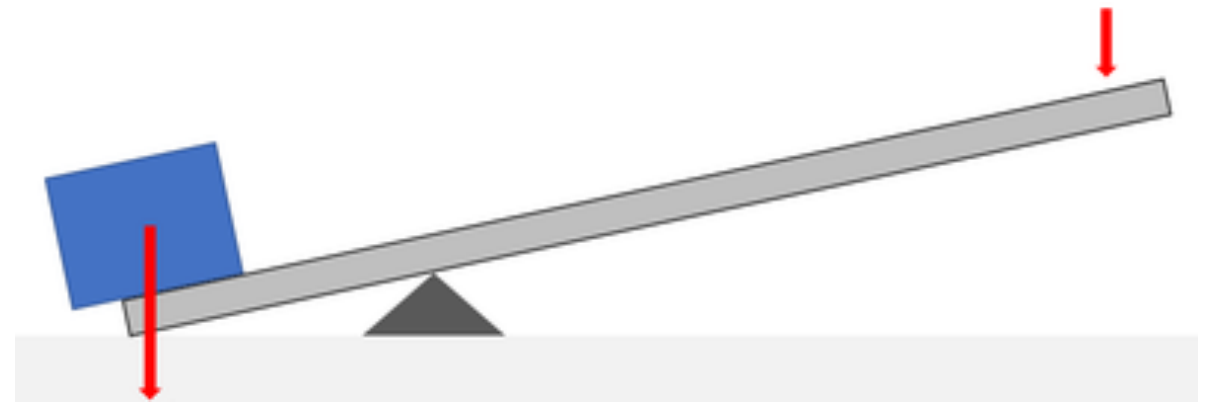
94%



Lietuviešu (Viļņas) vidusskolēnu izmanto ChatGPT mājasdarbu veikšanai

<https://www.lrt.lt/en/news-in-english/19/2102516/lithuanian-students-increasingly-turning-to-chatgpt-survey>

**Mākslīgais intelekts
ir spēju reizinātājs**



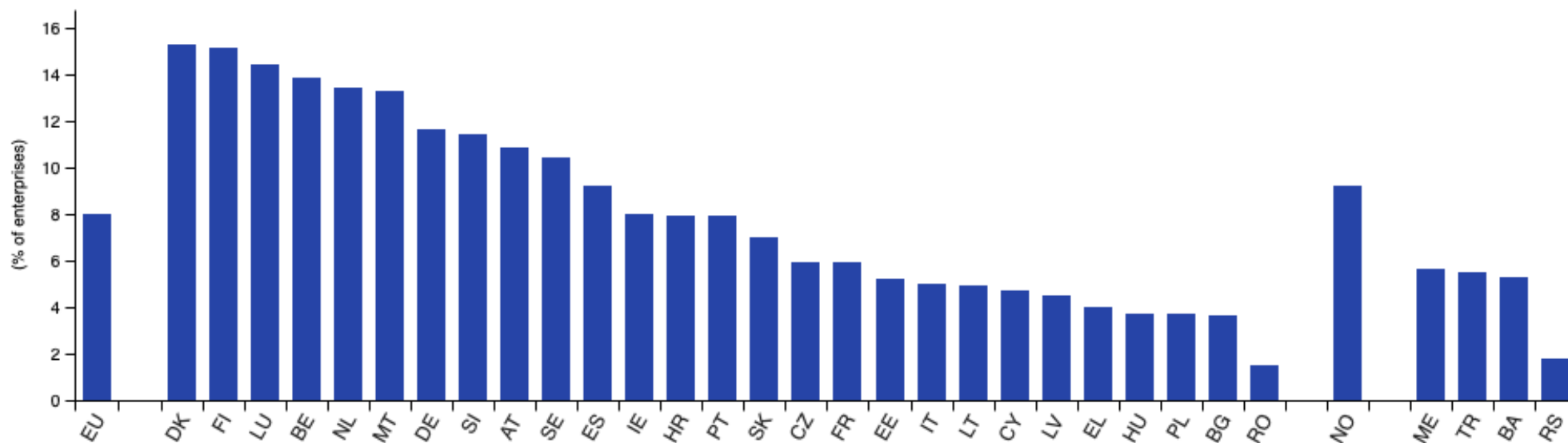
MI Ietekme

8% EU uzņēmumu izmanto MI

4.5% Latvijas uzņēmumu

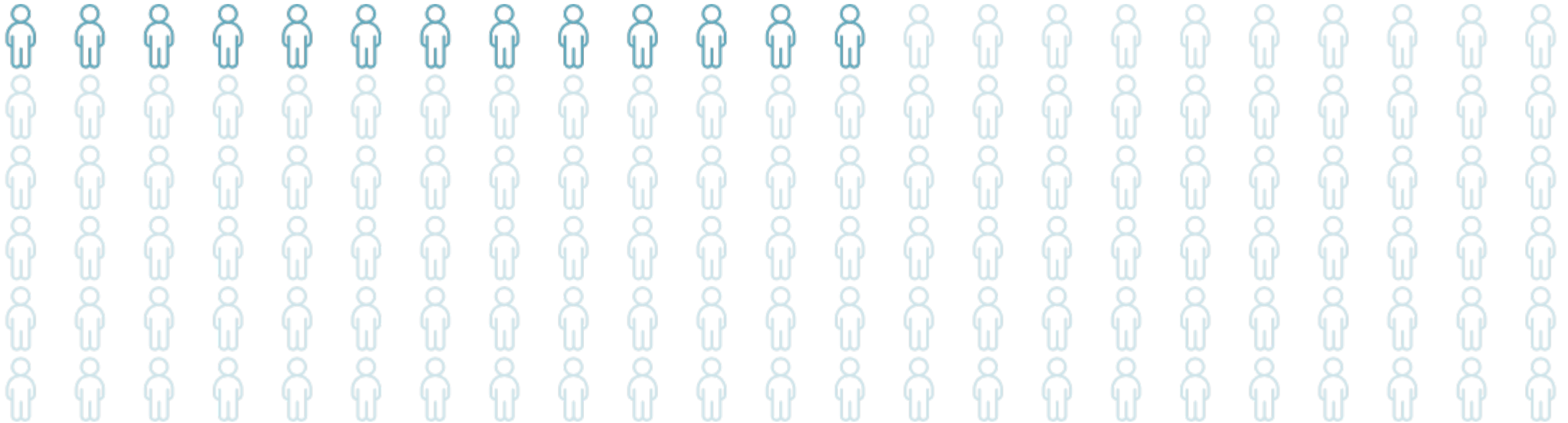
5.2% Igaunijas uzņēmumu

Enterprises using AI technologies, 2023



300m no 3.4b darbavietu ietekmēs Māsklīgais Intelekts līdz 2030

9%



Goldman Sachs, 2023,

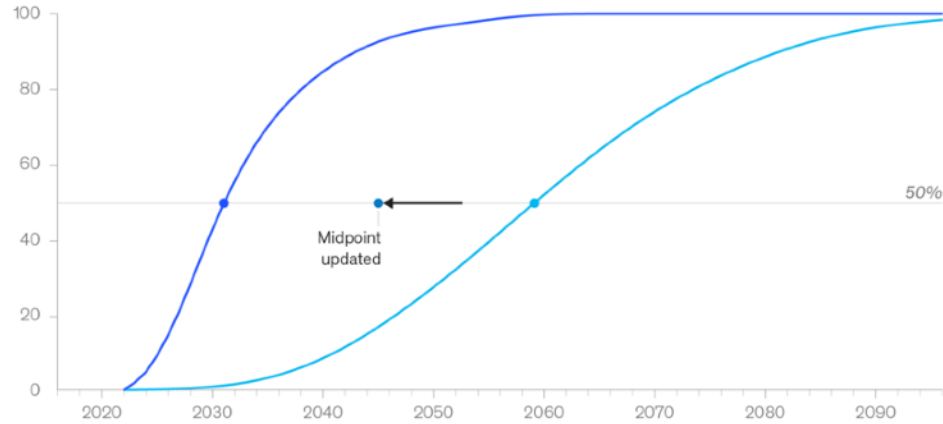
<https://www.businessinsider.com/generative-ai-chatpgt-300-million-full-time-jobs-goldman-sachs-2023-3>

MI İetekme

Global automation of time spent on current work activities, 1%

Updated early scenario including generative AI² Updated late scenario including generative AI³ 2017 early scenario² 2017 late scenario³

Updated scenarios 2017 scenarios



Generative AI productivity impact by business functions¹

Low impact High impact

	Total, % of industry revenue	Total, \$ billion	Marketing and sales	Customer operations	Supply chain and operations	Software engineering	Risk and legal	Strategy and finance	Talent and organization
			760-1,200	340-470	230-420	580-1,200	290-550	180-260	120-260
High tech	4.8-9.3	240-460	High	Low	Low	High	Low	Low	Low
Banking	2.8-4.7	200-340	High	High	Low	High	Low	High	Low
Pharmaceuticals and medical products	2.6-4.5	60-110	High	Low	High	High	Low	Low	Low
Education	2.2-4.0	120-230	High	Low	Low	High	High	Low	Low
Telecommunications	2.3-3.7	60-100	High	High	Low	High	Low	Low	Low
Healthcare	1.8-3.2	150-260	High	High	Low	High	High	Low	Low
Insurance	1.8-2.8	50-70	High	High	Low	High	Low	Low	Low
Media and entertainment	1.8-3.1	80-130	High	Low	Low	High	High	Low	Low
Advanced manufacturing ³	1.4-2.4	170-290	High	Low	High	High	Low	Low	Low
Consumer packaged goods	1.4-2.3	160-270	High	High	High	High	Low	Low	Low
Advanced electronics and semiconductors	1.3-2.3	100-170	High	Low	High	High	Low	Low	Low

Specialized tools

Generative tools:

- jasper.ai
- writesonic.ai
- chat.openai.com GPT-4

Document tools:

- chatpdf.com
- DeepL.com/translator

- Wordpress plugins (AutoWriter)
- Excel spraudņi (Numerous.ai)
- Social media apps (PostPerfect)

	A	B
1	Address	State abbreviation
2	285 S La Cadena Dr, Colton, California	=AI("Give me the state's abbreviation from this address",A2)
3	1230 W Woodin Ave, Chelan, Washington	
4	6560 Fannin St, Houston, Texas	
5	1840 E Colonial Dr, Orlando, Florida	



	A	B
1	Address	State abbreviation
2	285 S La Cadena Dr, Colton, California	CA
3	1230 W Woodin Ave, Chelan, Washington	WA

PostPerfect
AI generated social media posts

- ★ Set your Goal
- ★ Set your Tone
- ★ Enter your Keywords
- ★ Share your Post

Get your auto generated social media post

Struggling to create the perfect social media post? Look no further! Introducing PostPerfect - the app that generates custom posts for you based on your keywords. Download PostPerfect now and take your social media content to the next level! #PostPerfect #SocialMediaMarketing #ContentCreation

Happy Saturday, everyone! Today is the perfect day to kick back and relax outdoors enjoying the sunshine. What are your plans for the weekend? Let's #weekendvibes #Relaxation #outdooradventures

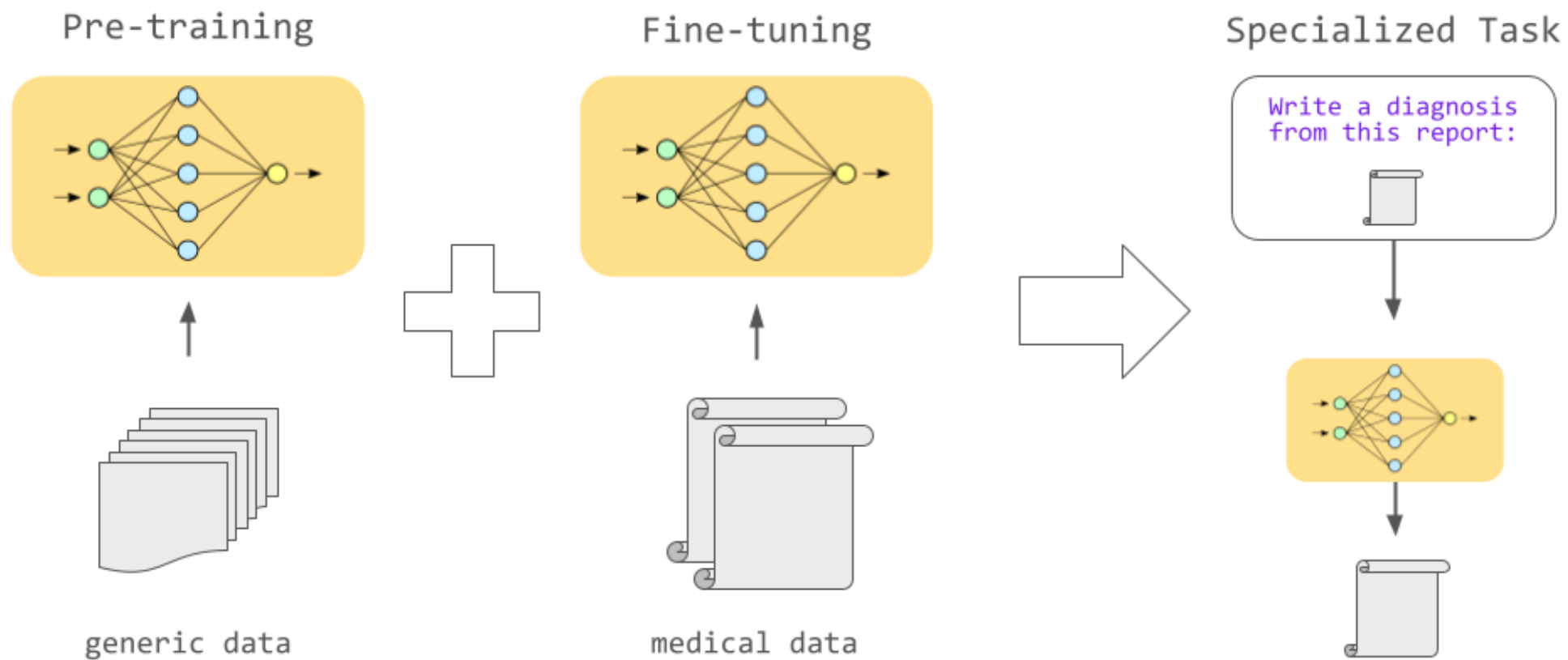
Enter your **Keywords**

Create your Post

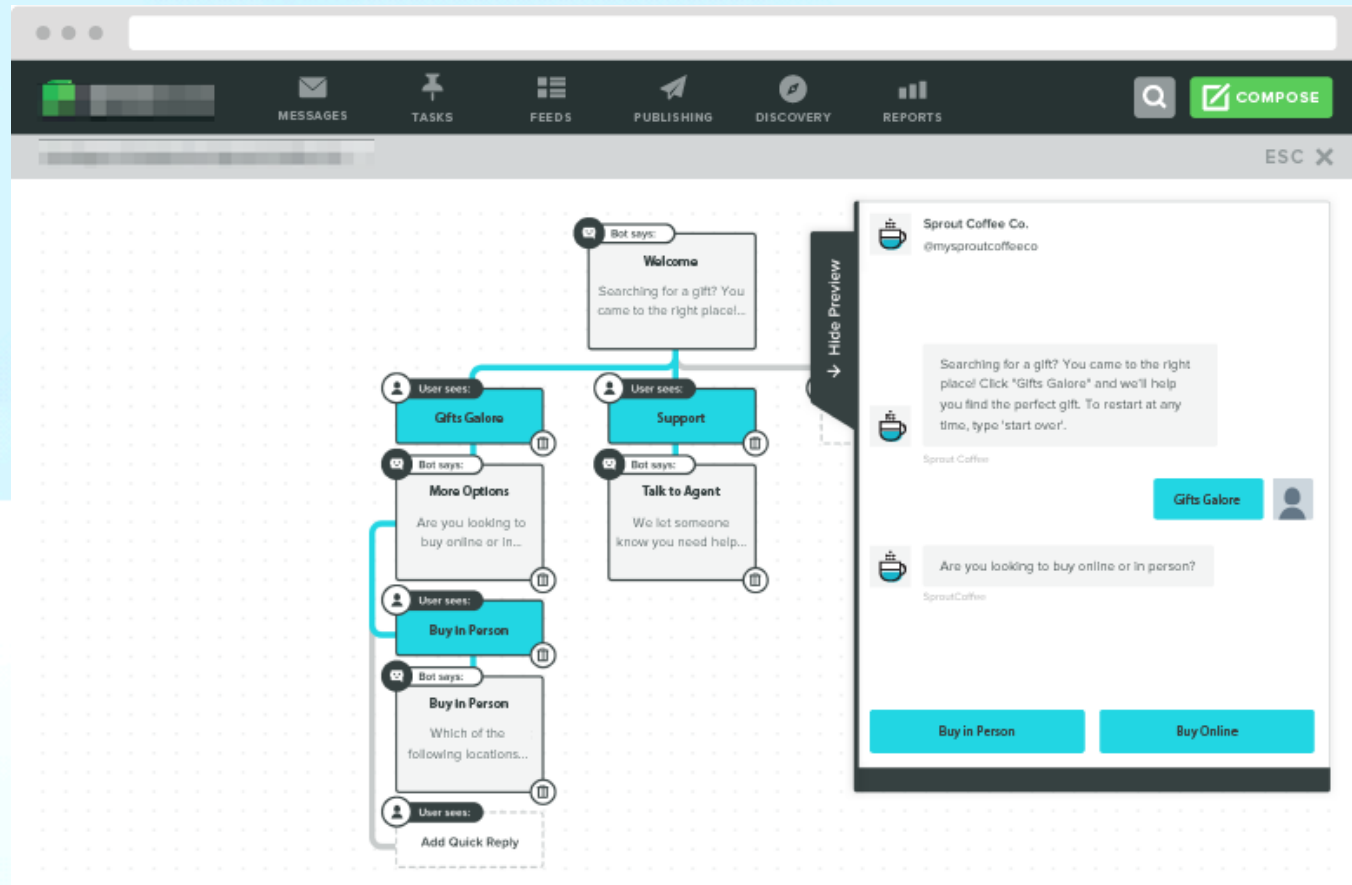
Get your AI powered **Post**

Struggling to create the perfect social media post? Look no further! Introducing PostPerfect - the app that generates custom posts for you based on your keywords. Download PostPerfect now and take your social media game to the next level! #PostPerfect #SocialMediaMarketing #ContentCreation

Fine tuning (LLM Studio, HuggingFace PyTorch)



Vecie čatboti



Open AI - Assistants

The screenshot displays the OpenAI Playground interface. On the left, the configuration panel for an assistant named 'doc chat' is visible. It includes fields for Name, Instructions (containing a system prompt), Model (set to gpt-4-1106-preview), and Tools (Functions, Code interpreter, Retrieval). A 'FILES' section lists several PDF documents. The main chat area shows a thread with a user query and a response from 'doc chat' that includes citations. A legend on the right side of the chat area explains the color-coded annotations: green for System prompt, purple for Grounding files, yellow for Personalization, red for User's query, and blue for Response with citations.

Playground Assistants [Learn about the Assistants API](#)

doc chat

Name
doc chat

Instructions
answer questions about employee benefits and health plans from uploaded files

Model
gpt-4-1106-preview

TOOLS

- Functions + Add
- Code interpreter
- Retrieval

FILES Upload

- Benefit_Options.pdf
- Northwind_Health_Plus_Benefits_Details.pdf
- Northwind_Standard_Benefits_Details.pdf
- employee_handbook.pdf
- role_library.pdf

Revert changes Save

THREAD thread_2d6VaqoJH9YFbSmYTpYuD24j Run Clear Logs

User
my plan is the Northwind Health Standard plan
does my plan cover contact lenses and immunizations?

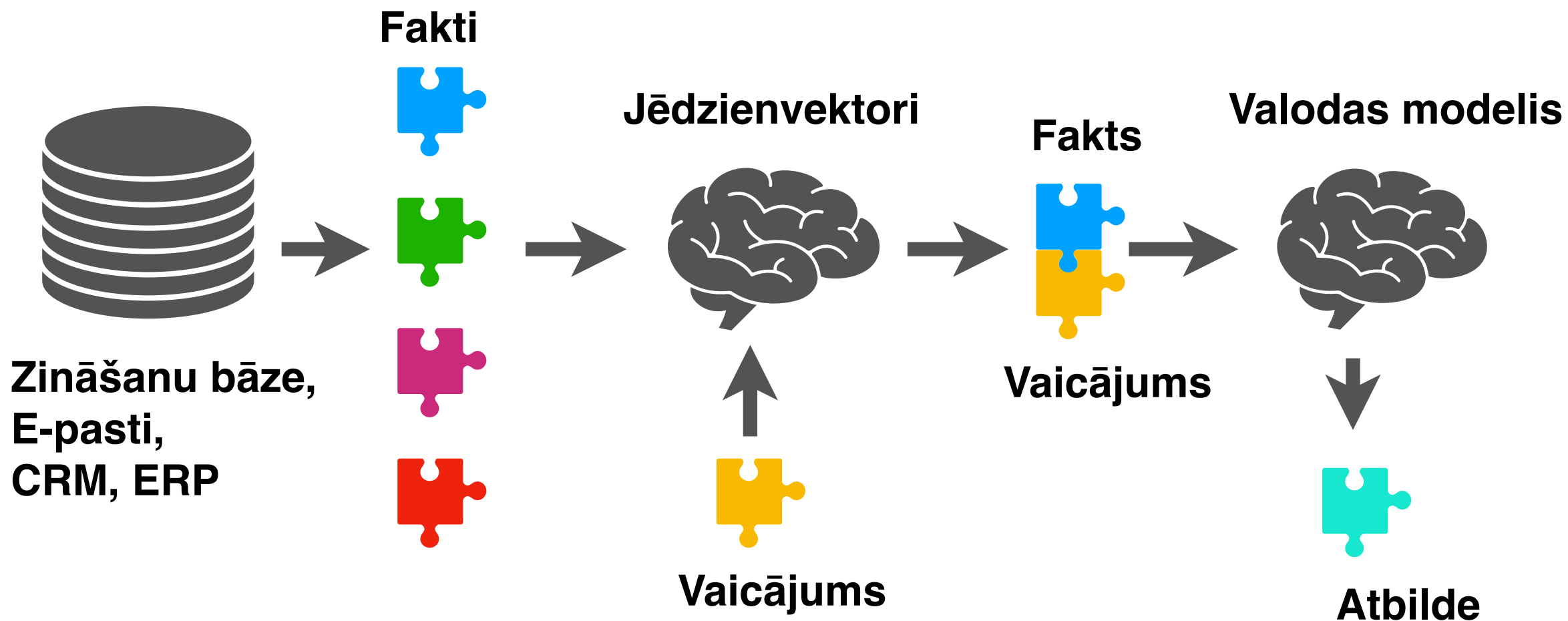
doc chat
The Northwind Health Standard plan does not offer coverage for contact lenses; it only provides coverage for vision exams and glasses [15*source] . However, the Northwind Health Standard plan does include preventive care services such as physicals, immunizations, and screenings [19*source] .

Legend:

- System prompt
- Grounding files
- Personalization
- User's query
- Response with citations

Enter your message... Add and run Add

Viedie asisstenti - RAG / LLM



Izmanto Eldigen, lai būvetu ģeneratīvā MI risinājumus, **kas lasa**

Izraujies priekšā tirgum, izmantojot valodu atpazīšanas LLM (Large Language Models) modeļus. Pievienojies uzņēmumiem, kas izmanto Eldigen platformu, lai ģenerētu, kategorizētu un organizētu tekstuālu informāciju.





Sveiki! Kā es varu padarīt jūsu dienu vieglāku?

Kas ir BTA?



BTA ir apdrošināšanas uzņēmums Latvijā, kas piedāvā plašu risku segumu, medicīnisko palīdzību, atbalstu 24/7 visā pasaulē, attālinātas medicīna konsultācijas un papildu aktivitātes ceļotājiem. Uzņēmums apstrādā personas datus, ievērojot Eiropas Parlamenta un Padomes regulu par personas datu aizsardzību.

1. [privatipasuma-palīdzības-komplekts-noteikumi-nr-0802-pal1-lv.pdf 3. lapa](#)



2. [Celojumu-adrpsoinasana.pdf 1. lapa](#)

Nākamie piedāvātie jautājumi:

[Kādas ir BTA ceļojumu apdrošināšanas priekšrocības?](#)

[Kādi pasākumi tiek veikti, lai nodrošinātu personas konfidencialitāti apdrošināšanas līguma informācija?](#)

[Kāda ir kontaktinformācija BTA Baltic Insurance Company Rīgā Latvijā?](#)

|

+ Jauns temats



Statistika

Jānis Bērziņš x WhatsApp x Šonedēļ x ⌵ Filtrs


Sarunu statistikas koks

Biežāk lietotie vārdi

Saraksts Vārdi

- Vārdu mākonis
- Saraksts



Sarunas

Aģents - Formu aizpildīšana



TestAssistant ▾ Statistika Zināšanu avoti Iestatījumi 𠄎

Labdien esmu pasūtījumu pieņemšanas aģents vai varat lūdzu norādīt kuru preci vēlaties iegādāties?

Vēlos iegādāties 100 impregnētus dēļus KODS 204500

Paldies, piefiksēju. Kāds ir jūsu uzņēmuma numurs?

reģ nr. 40203171916

Paldies, atradu jūs mūsu klientu datu bāzē, vai jūs esat no SIA "ASYA", adrese Dārzu iela 4, Ventspils, LV-3601?

Ierakstiet jautājumu

+ Jauna tēma

Item	Item Code	Item Price (EUR)	Item Count	Total Price (EUR)	Company	Registration Number	Address	
1	Impregnēti dēļi	204500	3.45	100	3450	SIA ASYA	40203171916	Dārzu iela 4, Ventspils, LV-3601

Aģents - Darbinieku apmācīšana



TestAssistant

Statistika Zināšanu avoti Iestatījumi Integrācijas Sarakste

Labdien esmu jūsu apmācību aģents, lūdzu atbildiet uz jautājumiem par produktu. Vai esat gatavs sākt?

Jā

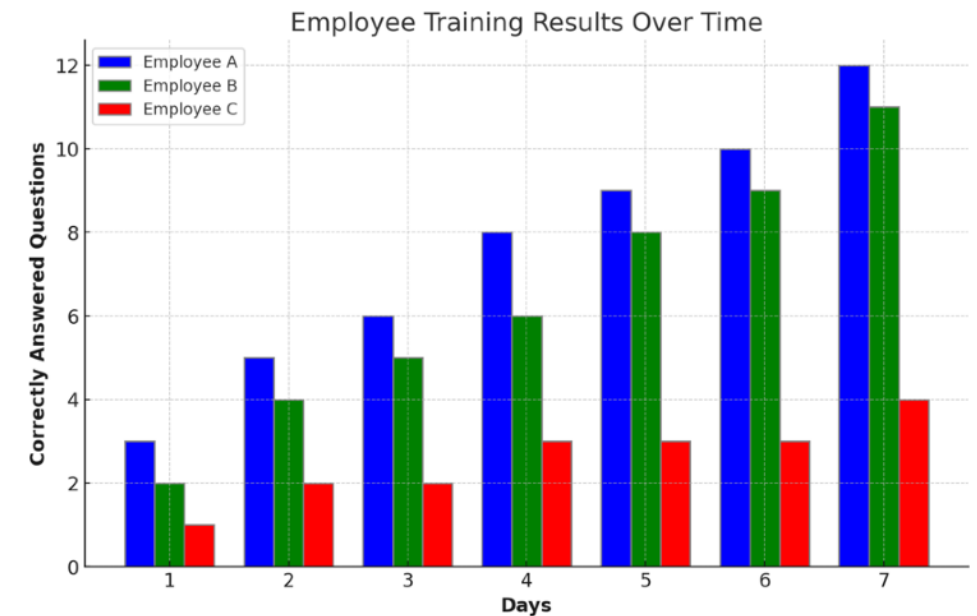
Kādas ir Ulgrip™HOT karstā dzēriena sastāvā esošā PureWay-C® vitamīna priekšrocības salīdzinājumā ar parasto C vitamīnu?

Šis vitamīns ir vieglāk uzsūcams un draudzīgāks kuņģim. Pētījumi rāda, ka C vitamīns uzsūcas 2x labāk kā citu ražotāju izstrādājumi

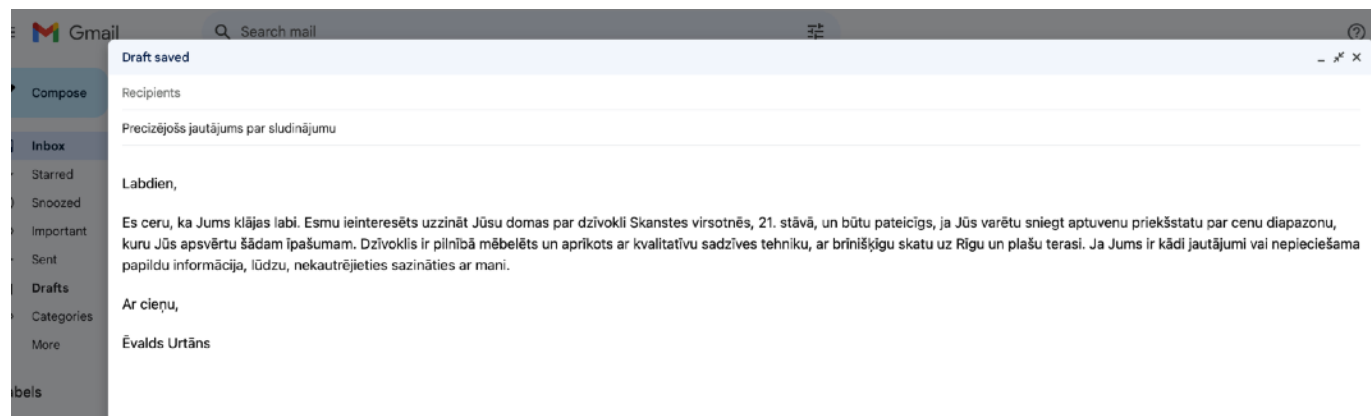
Pareizi, Pētījumi liecina, ka PureWay-C saglabājas organismā par 233% ilgāk nekā citi C vitamīna produkti. Tas arī ātrāk uzsūcas asinsritē no kuņģa-zarnu trakta un vieglāk iekļūst šūnu membrānās, pateicoties tā unikālajam lipīdu metabolītu sastāvam.

Ierakstiet jautājumu

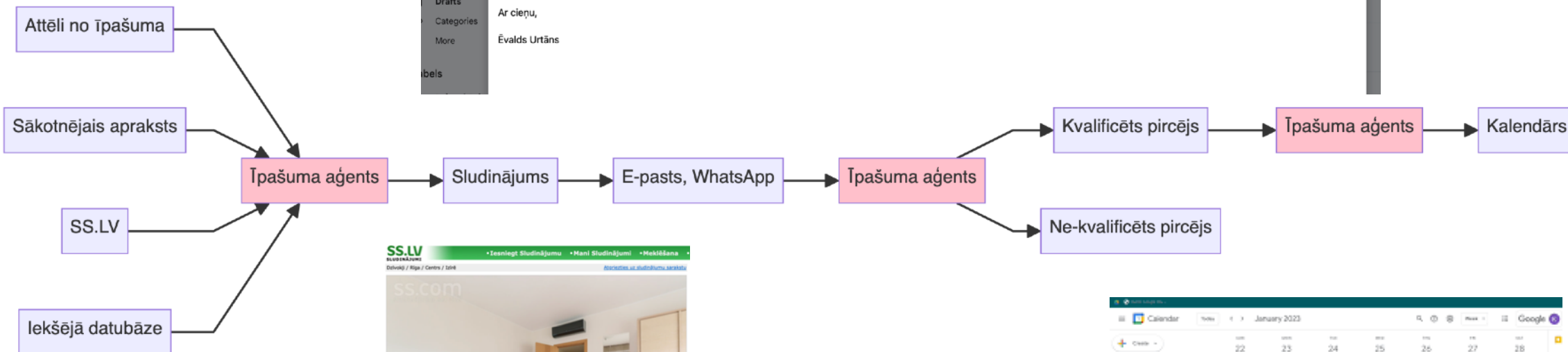
+ Jauna tēma



Aģents - Nekustamajā īpašumā

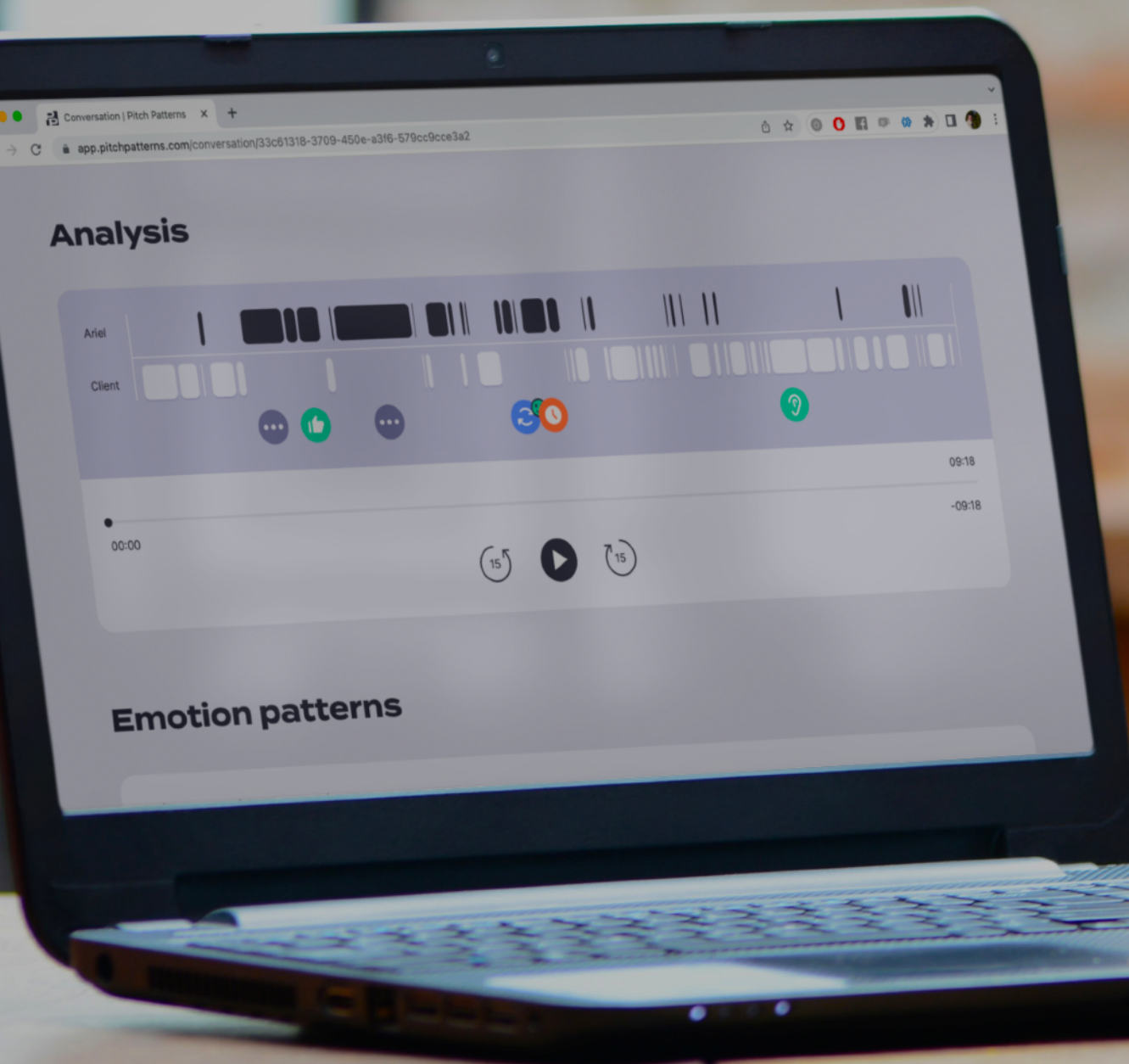


Stāvs: 21/23
Sērija: Jaun.
Mājas tips: Paneļu - ķieģeļu
Ērtības: Lodžija, Terasa, Parka



Develop a Gomoku game





Pitch Patterns

AI zvanu analīze



Atpazīst "soft-skills"

AGENT	CALLS	SPH	CLOSED SALES	TALKING	POSITIVITY	PATIENCE	TALKING PACE	PATIENCE
Robert A.								
James W.	35	3	21%	39%	41%	60%	145wpm	91%
Michael S.								



Performance

Check the performance of the whole sales team at one glance.



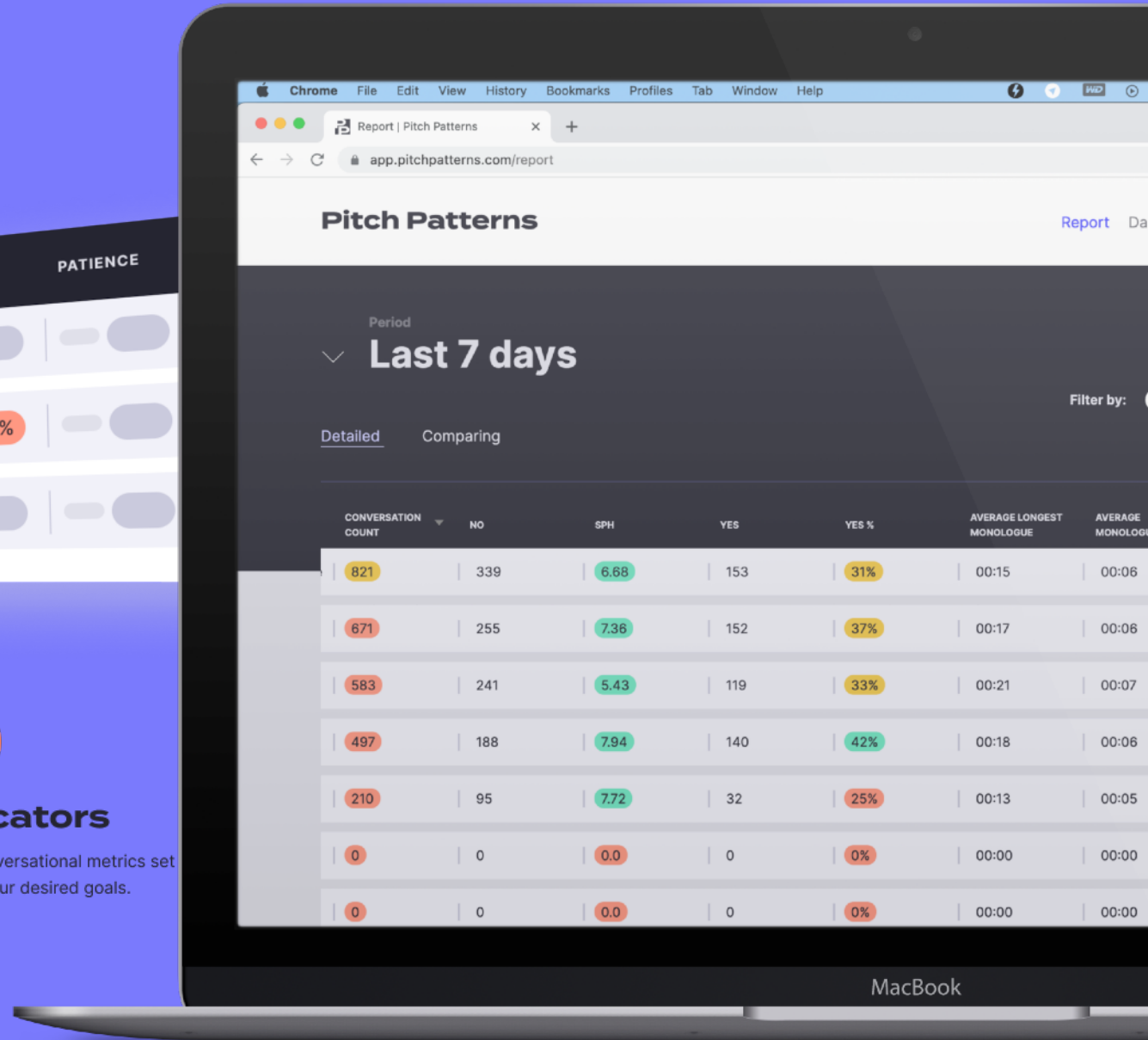
Metrics

Check different type of key conversational metrics to find out what drives sales.



Indicators

Track conversational metrics set against your desired goals.



Atpazīst "hard-skills"

Pitch Patterns Darbagalds Atskaite Kopsavilkums Uzdevumi Sarunas

Novērtē sarunu! Auči 0/10 Vel nav novērtēts

Analīze

Pievienot mācību piezīmi

02:37 05:24
-02:47

15s 15s 1x

Markļeri

Aģents

Klients

Temati

Nodoms

Zinot par kibeli

Transcript Mhm jā, paldies, ka precizējāt ē tūlīt uzkrūpošu informāciju, ko nodot attiecīgai. Nodajai. Nedaudz uzgaidiet, lūdzu, jā.

Report bad transcript

Temati

See Transcript

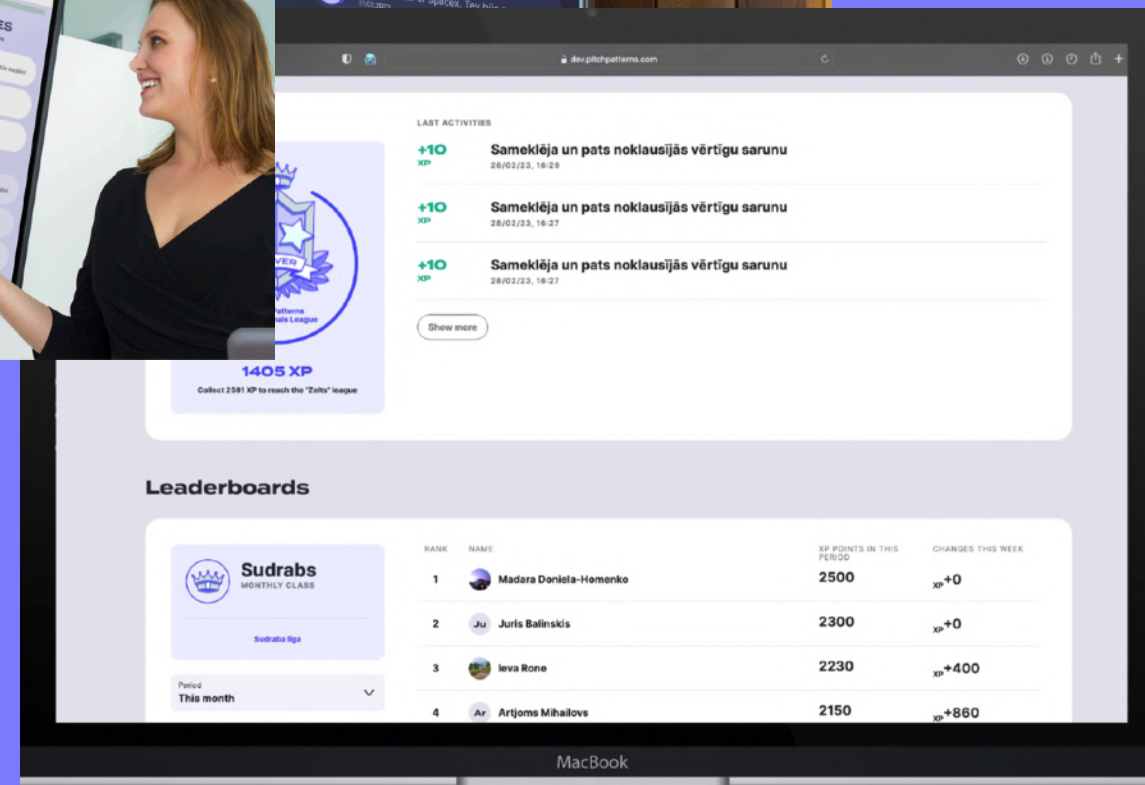
Nodoms Temati

Aģents	Klients	Kopsavilkums
24 Aģents - Liekvārdība	1 Klients - Nav laika	24 Aģents - Liekvārdība
15 Aģents - Sarunu veidojošie		15 Aģents - Sarunu veidojošie
2 Aģents - Jautājumi		2 Aģents - Jautājumi
1 Aģents - Laipnības vārdi		1 Aģents - Laipnības vārdi

“Leaderboards” sistēmas izveide darbinieku motivācijai



Integrējama ar bonusu sistēmu

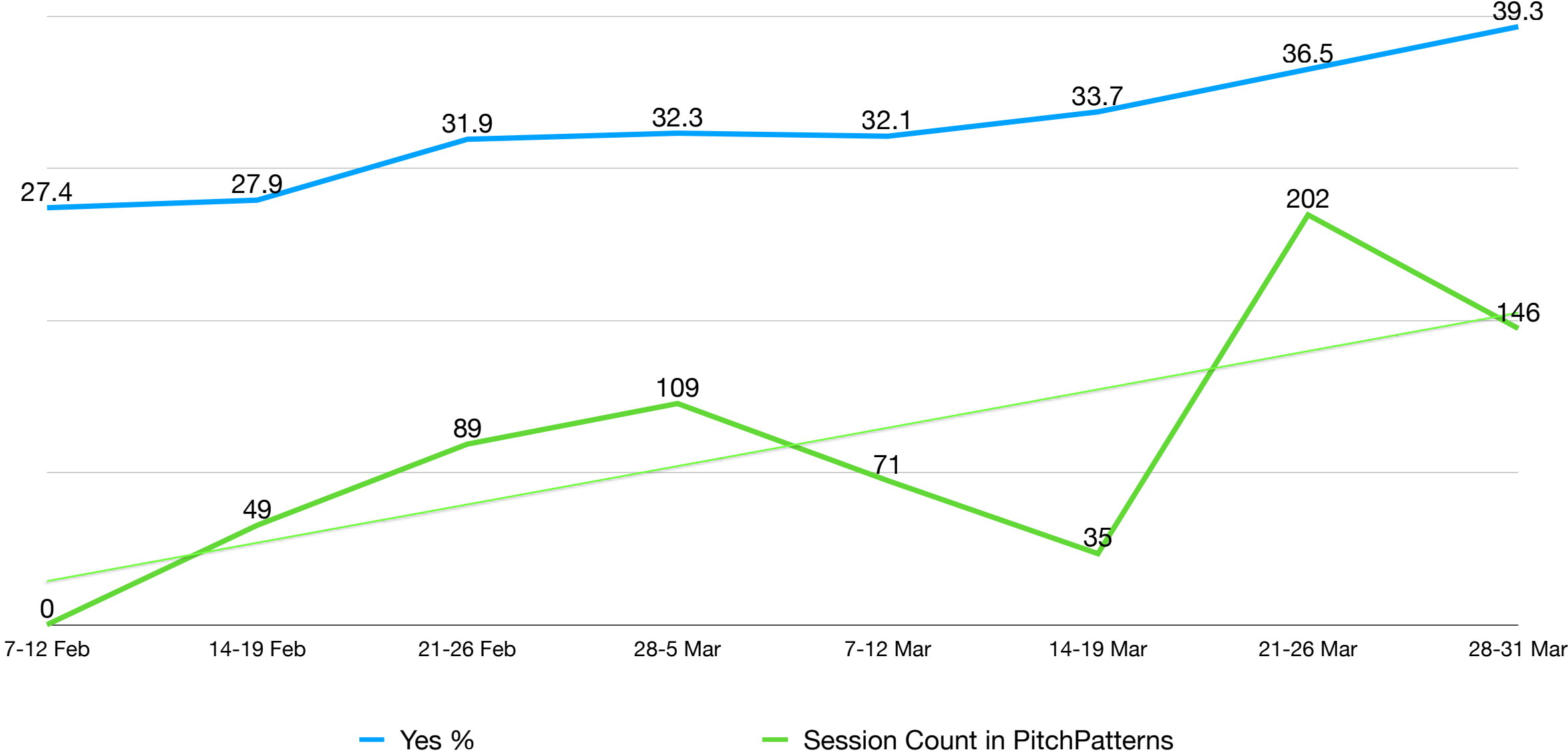


Temati

Skatīt detalizētāk



43% improvement in closed sales



Case study #1



*"Increasing the prospect's talk time from **22%** to **33%** significantly boosts opportunity win rates"*

Case study #1

Ask the right *amount* of questions

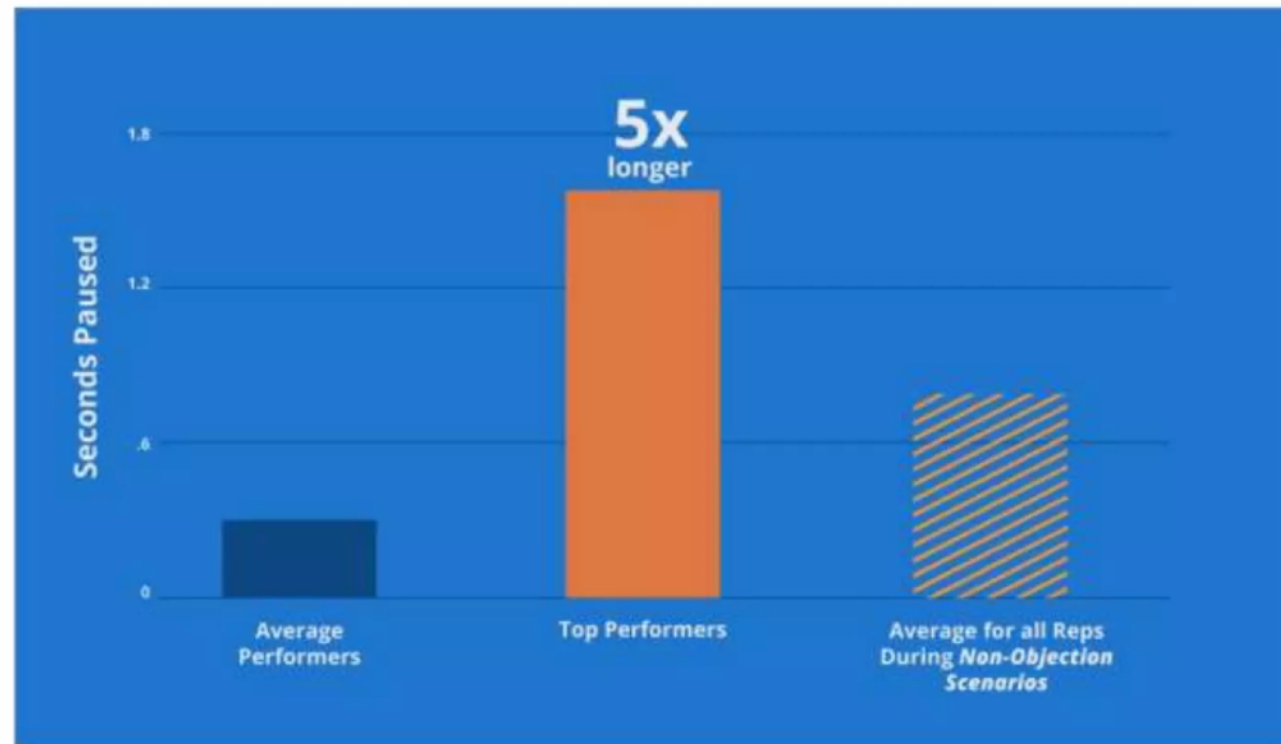


Case study #2



Case study #2

Successful reps “pause” 5x longer after objections



Audio apstrāde

asya.ai API Explorer

Results of task "Guns (Latvian)"

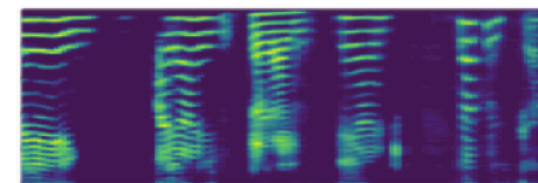
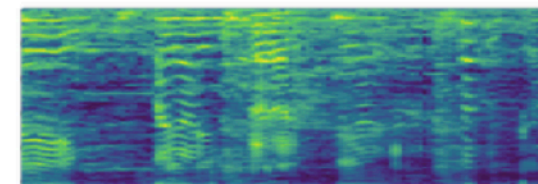
[Back to all tasks](#)

Metrics

- Cosine similarity: 0.8976639 (no unit)
- CER with no punctuation: 0.6297219 (no unit)
- WER with no punctuation: 0.81970537 (no unit)
- CER with all characters: 0.63972145 (no unit)
- WER with all characters: 0.8517618 (no unit)

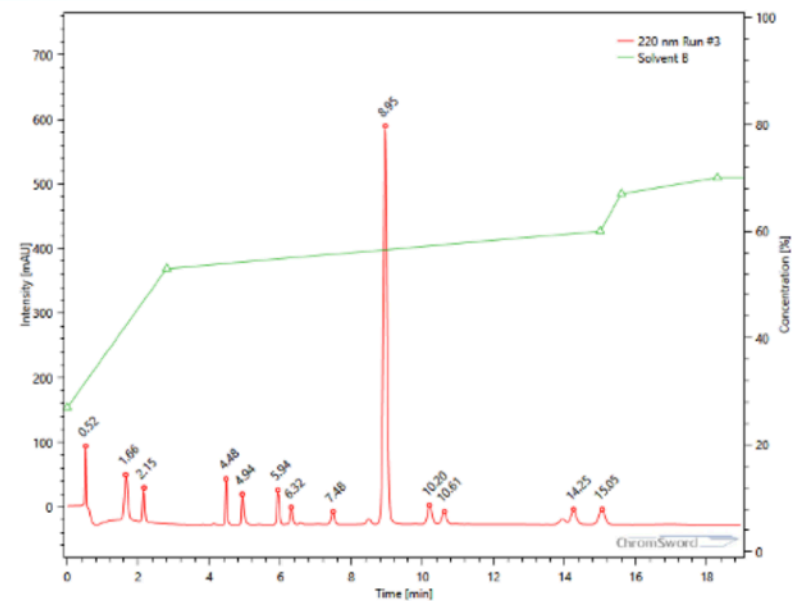
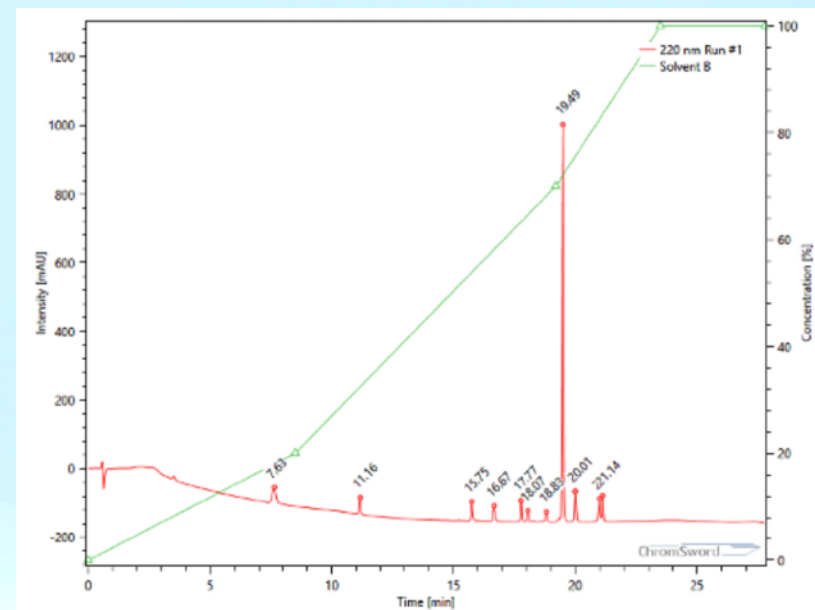


Before (noisy audio)

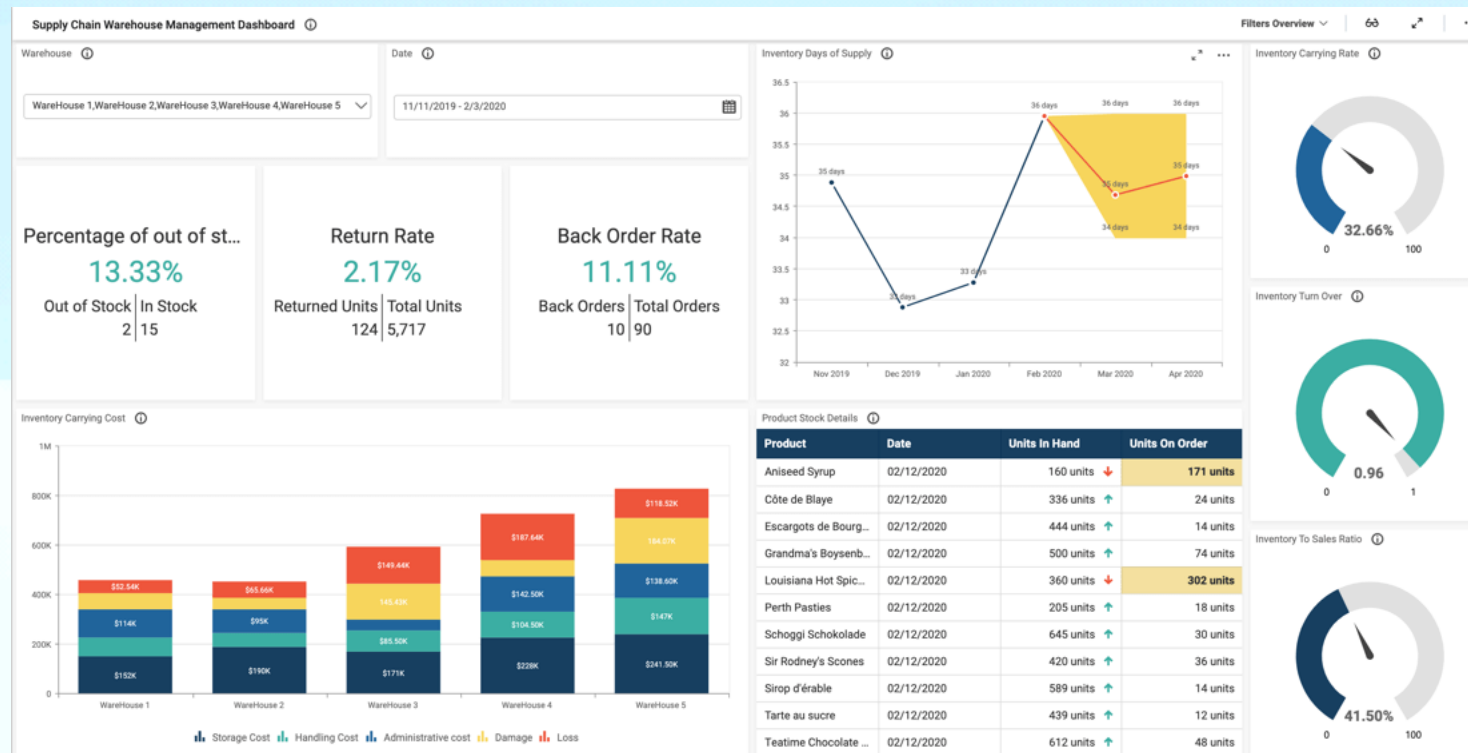


After (clean audio)

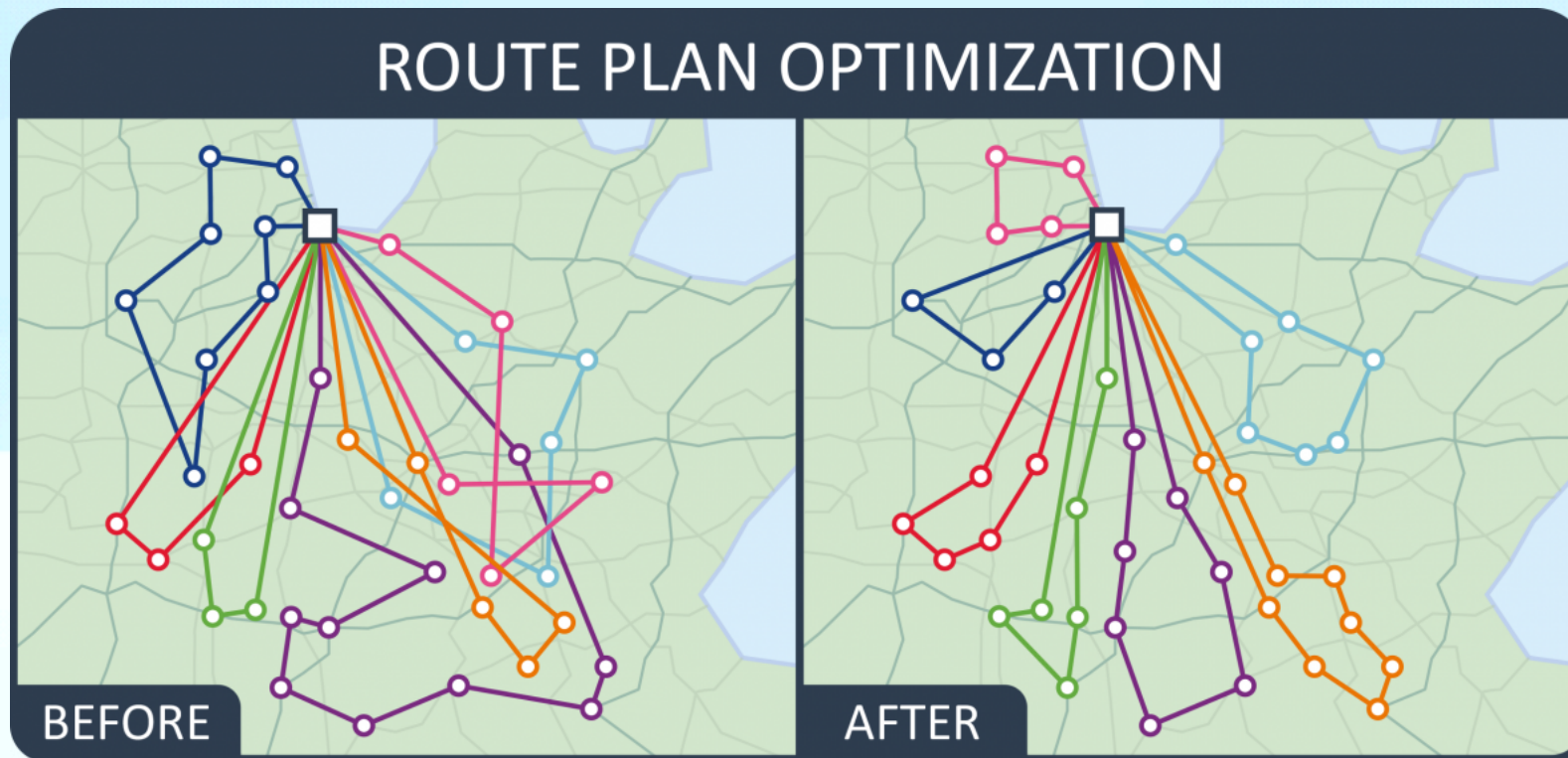
Analītisko procesu automatizācija



Resursu un pieprasījuma prognozēšana



Loģistikas optimizācija



Dokumentu ielasīšana

Supplier name — **Examplewebshop.com**

Recipient — **Klippa**
Purchasing department
Lübeckweg 2
9723HE Groningen
The Netherlands
info@klippa.com

Payment method — **Payment method:**
Paid with Paypal

Supplier contact information

Spijkerkade 3
1021 JS Amsterdam
The Netherlands

Phone 0203300124
E-mail info@examplewebshop.com
Website www.examplewebshop.com
IBAN NL24RABO0115562452
BIC RABONL2U
KvK 93434231
VAT Number NL453534543B01

Weborder 10000734

Invoice #18800000
Invoice date 21-12-2018

Invoice number, invoice date

Count	SKU	Description	Price	VAT%	Net. amount	VAT	Total amount
76	SKU-21371	Example items	€ 0,59	21%	€ 37,06	€ 7,78	€ 44,84
24	SKU-10466	Replacement parts	€ 0,59	21%	€ 11,70	€ 2,46	€ 14,16
1	Shipping fee		€ 3,95	21%	€ 3,26	€ 0,69	€ 3,95
1	Transaction fee		€ 0,00	21%	€ 0,00	€ 0,00	€ 0,00

Line items

Total netto amount	€	52,02
VAT 21%	€	10,93
Total including VAT	€	62,95

Invoice total, VAT total

Rokrakstu digitalizēšana

APPLICATION FOR GOOD STUDENT CLASSIFICATION

Please review the Good Student Classification requirements printed on the front of this form. If you meet the requirements, you'll need to complete Part I, have a school official complete Part II and then return the completed form to the address provided.

PART I Basic Information - Please complete this entire section.

Policyholder Information

Policyholder Name: Bob Zimmerman Today's Date: 12/01/2018

Mailing Address: 123 East North Street City: Springfield

State, Zip Code: IL 60661

Policy Number: LEO 60601234567 Policy Effective Date: 01/01/2019

Student/Driver Information

Student Name: Christopher Robin Date of Birth: 10/01/1938

Name and Address of School: Shermer High School
Shermer St. Shermer, IL
60062

PART II Good Student Certification Form - School Official Must Complete

Fields 🔔 ✓

Date:

Policyholder Name: !
Low Confidence

Mailing Address:

City: !
Low Confidence

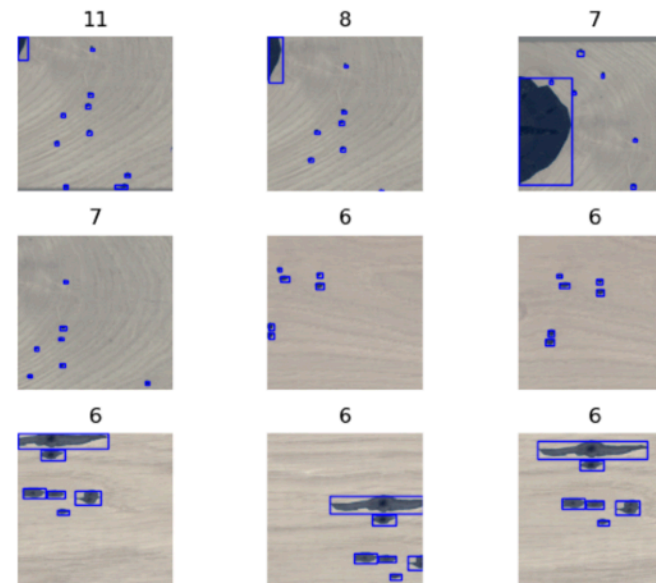
State, Zip Code:

Policy Number:

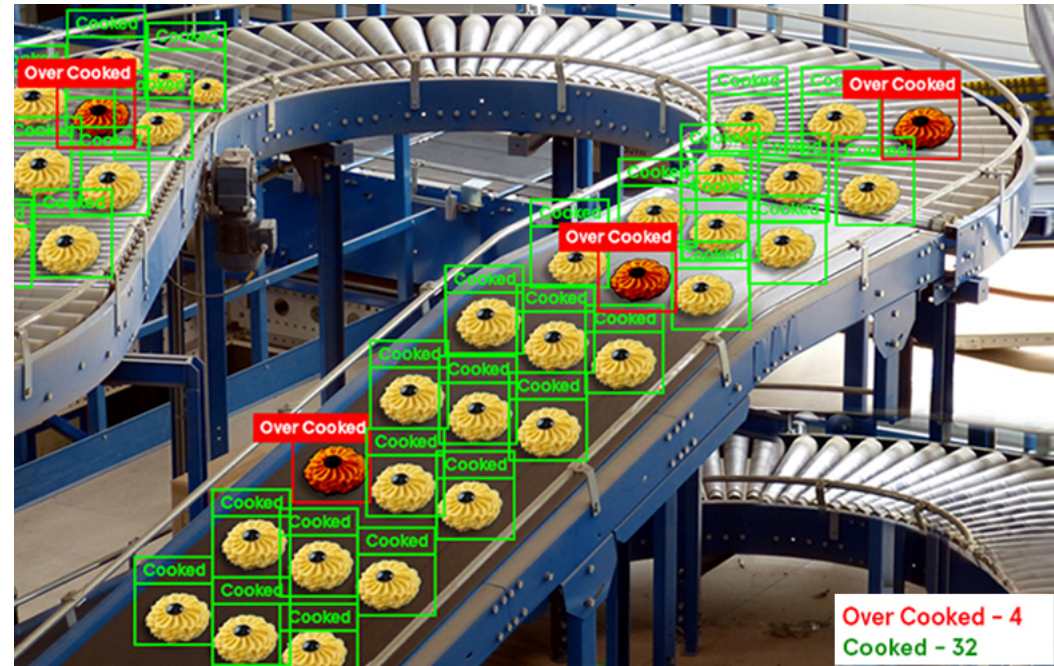
Attēlu apstrāde - Apdrošinātāju gadījumu tāmes



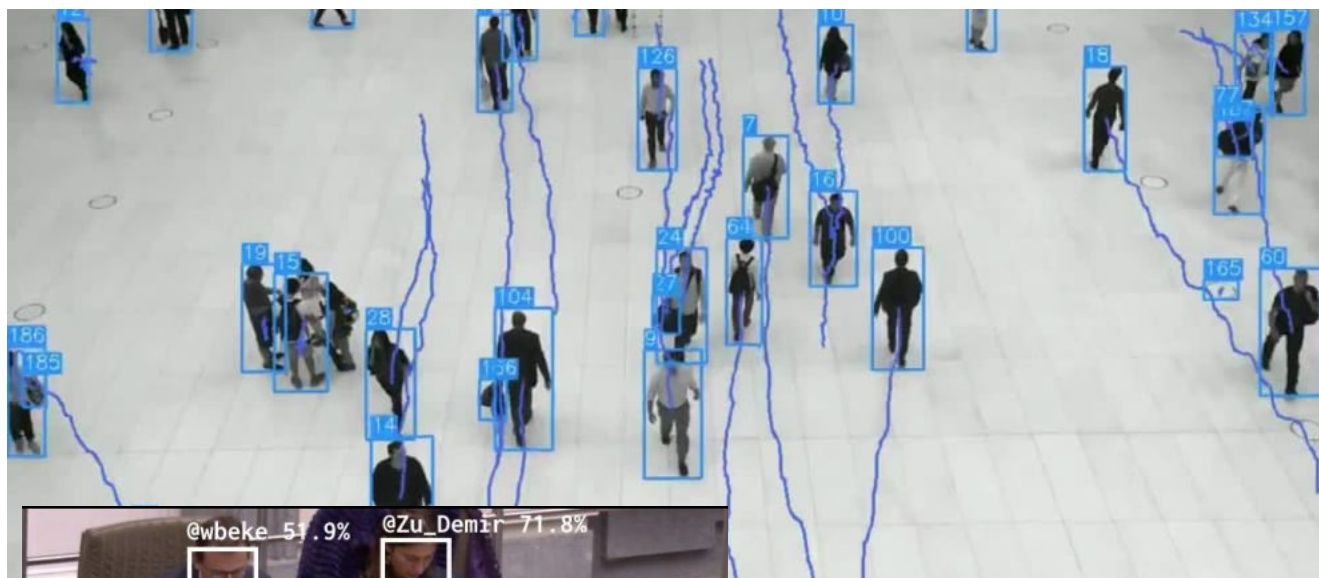
Ražošanas procesu automatizācija



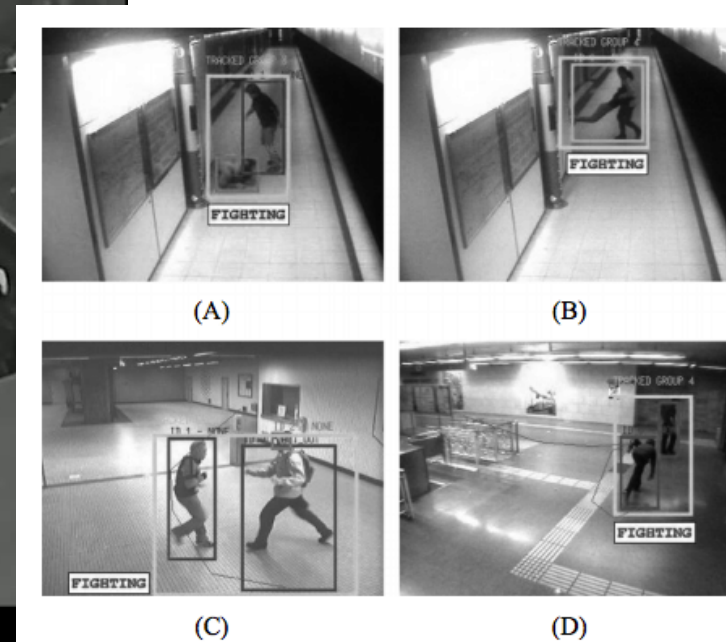
Ražošanas kvalitātes kontrole



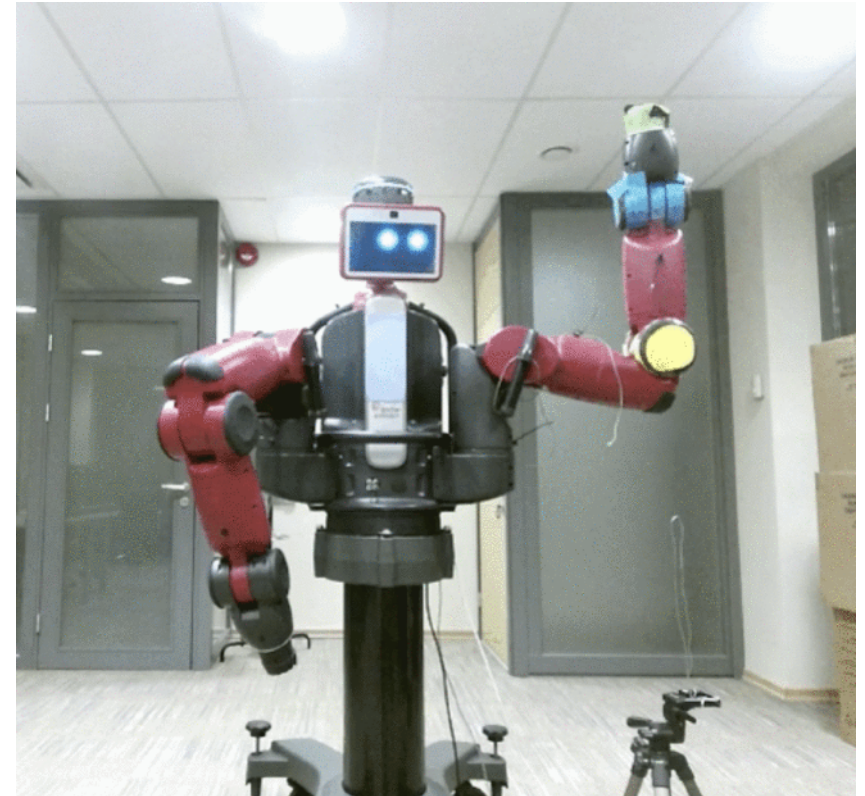
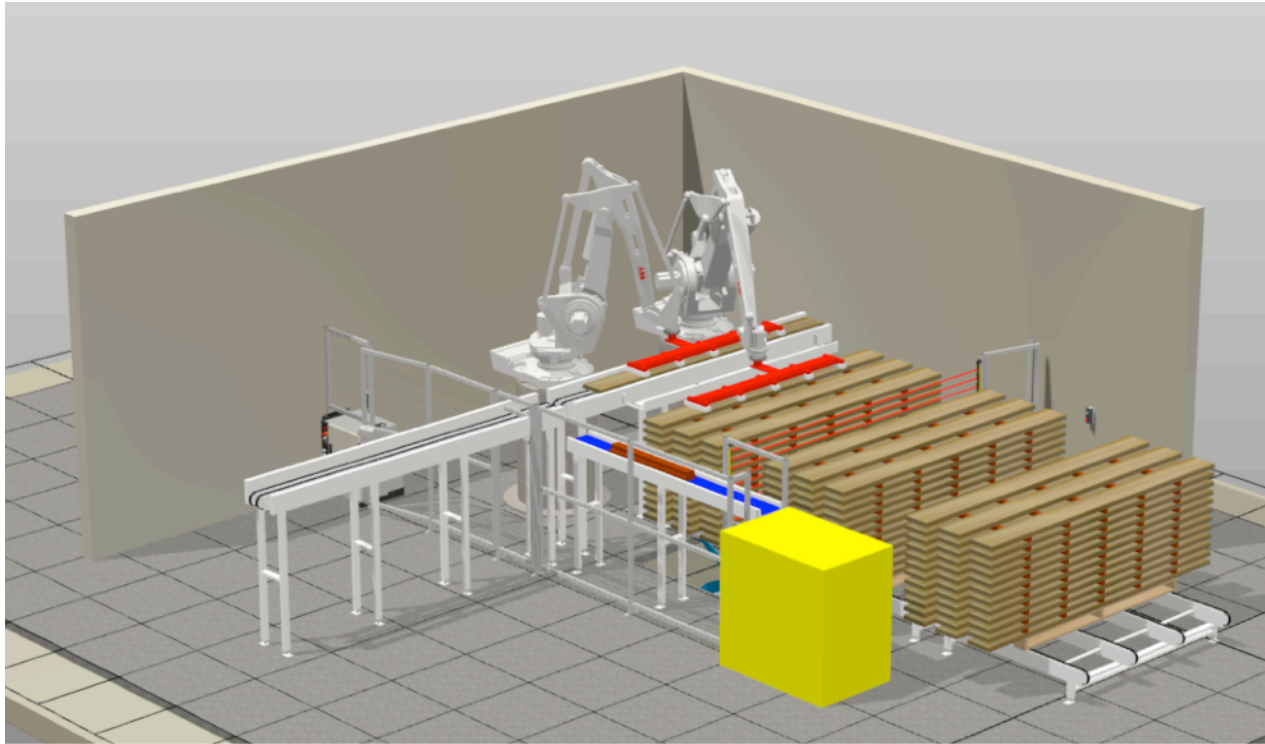
Cilvēkresursu optimizācija



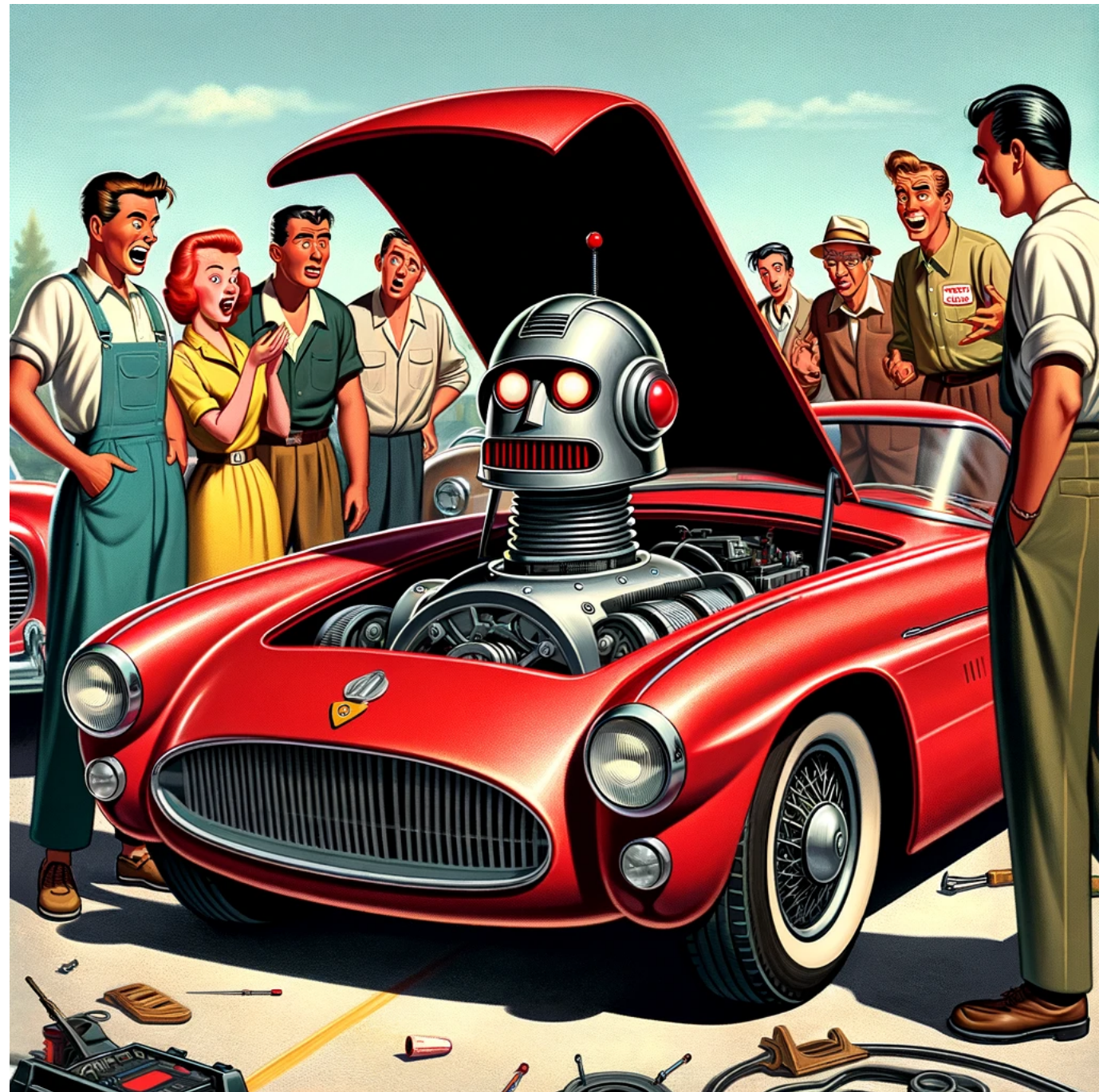
Drošības sistēmas



Robotizācija



Tehnoloģija

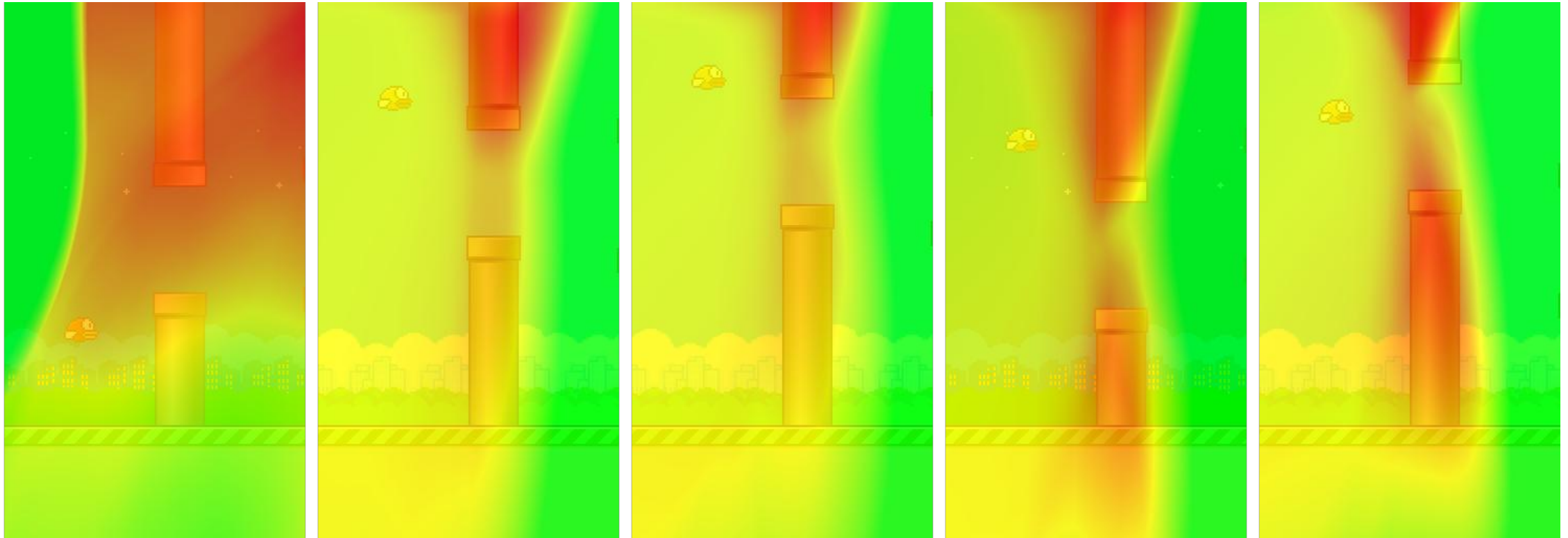


MDQN Reinforcement learning

The image shows a screenshot of a computer screen with two windows. The left window is a terminal window titled 'dqn-research — python start.py ./results/params-1445.csv play — 136x38'. It displays a list of training data points, each consisting of a score, a 2D array of floats, and a float value. The right window is a 'pygame window' showing a Super Mario Bros game. The game features a blue sky, green ground, and several brown brick blocks. A small Mario character is visible in the center of the screen, standing on the ground. The background shows a cityscape with buildings and a green hill.

```
(1, array([-383.66690063, -44.72232056], dtype=float32), 1511954617.871041)
(0, array([-26.67914581, -240.47523499], dtype=float32), 1511954617.926337)
(0, array([-32.46756363, -726.45959473], dtype=float32), 1511954617.973605)
(0, array([-31.34472275, -704.70025635], dtype=float32), 1511954618.017909)
(0, array([-41.15851974, -737.57055664], dtype=float32), 1511954618.065857)
(1, array([-764.14849854, -46.51177979], dtype=float32), 1511954618.11026)
(1, array([-776.48706055, -40.23569107], dtype=float32), 1511954618.156591)
(1, array([-782.90441895, -47.79046631], dtype=float32), 1511954618.202168)
(1, array([-766.97747803, -36.28228378], dtype=float32), 1511954618.246403)
(1, array([-702.71185303, -117.89255524], dtype=float32), 1511954618.292508)
(1, array([-622.12109375, -74.36506653], dtype=float32), 1511954618.336488)
(1, array([-467.78619385, -89.39079285], dtype=float32), 1511954618.381352)
(0, array([-48.00501633, -481.79855347], dtype=float32), 1511954618.427848)
(0, array([-31.62837791, -704.8067627 ], dtype=float32), 1511954618.472475)
(0, array([-31.70261192, -657.12744141], dtype=float32), 1511954618.517411)
(0, array([-47.38516998, -715.66644287], dtype=float32), 1511954618.562538)
(0, array([-18.77271271, -599.96789551], dtype=float32), 1511954618.607743)
(0, array([-32.67874908, -691.55059814], dtype=float32), 1511954618.65291)
(1, array([-569.98370361, -33.54508209], dtype=float32), 1511954618.698954)
(1, array([-690.29199219, -60.77622223], dtype=float32), 1511954618.74343)
(1, array([-405.43179321, -39.78333664], dtype=float32), 1511954618.789609)
(1, array([-647.69592285, -48.65028 ], dtype=float32), 1511954618.839352)
(0, array([-23.78653526, -306.57928467], dtype=float32), 1511954618.882716)
(0, array([-29.89346886, -714.80023193], dtype=float32), 1511954618.929318)
(0, array([-31.77241325, -668.17852783], dtype=float32), 1511954618.973631)
(0, array([-49.2617836 , -733.11877441], dtype=float32), 1511954619.018302)
(1, array([-650.82086182, -62.20399475], dtype=float32), 1511954619.063701)
(1, array([-744.98254395, -44.0212822 ], dtype=float32), 1511954619.10732)
(1, array([-691.9239502 , -62.45724106], dtype=float32), 1511954619.153247)
(1, array([-740.48760986, -66.85901642], dtype=float32), 1511954619.200726)
(1, array([-190.04362488, -117.72187042], dtype=float32), 1511954619.248421)
(0, array([-53.57797241, -247.8196106 ], dtype=float32), 1511954619.294954)
(0, array([-39.36667252, -730.02099609], dtype=float32), 1511954619.340849)
(0, array([-50.73726273, -708.14300537], dtype=float32), 1511954619.386638)
(0, array([-54.59321976, -742.73693848], dtype=float32), 1511954619.437639)
```

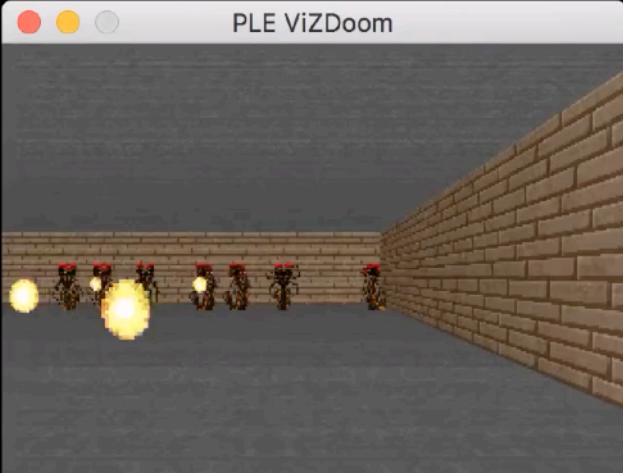
MDQN Reinforcement learning



MDQN Reinforcement learning

```
Python Window
dqn-test-68 — vizdoom + start.py ./results/params-26.csv --play --load_model best — 165x42

reward: 1.0
(1, array([-259.46856689, -79.59145355], dtype=float32), 1515672070.280003)
reward: 1.0
(1, array([-221.15769958, -80.89302063], dtype=float32), 1515672070.351538)
reward: 1.0
(0, array([-111.69728088, -137.18057251], dtype=float32), 1515672070.424357)
reward: 1.0
(1, array([-151.25306702, -72.79479218], dtype=float32), 1515672070.49599)
reward: 1.0
(1, array([-277.33825684, -60.86132812], dtype=float32), 1515672070.577052)
reward: 1.0
(1, array([-345.74316406, -55.99404907], dtype=float32), 1515672070.650317)
reward: 1.0
(1, array([-376.49749756, -87.7379837 ], dtype=float32), 1515672070.72935)
reward: 1.0
(1, array([-357.5579834 , -92.35315704], dtype=float32), 1515672070.798739)
reward: 1.0
(1, array([-342.12542725, -107.70066071], dtype=float32), 1515672070.873053)
reward: 1.0
(1, array([-332.73199463, -117.59031677], dtype=float32), 1515672070.9465)
reward: 1.0
(1, array([-376.04608154, -136.48995972], dtype=float32), 1515672071.018233)
reward: 1.0
(1, array([-477.81155396, -179.57232666], dtype=float32), 1515672071.089616)
reward: 1.0
(1, array([-370.90988159, -134.34805298], dtype=float32), 1515672071.16045)
reward: 1.0
(1, array([-262.7749939 , -173.84957886], dtype=float32), 1515672071.235157)
reward: 1.0
(0, array([-138.97036743, -242.61117554], dtype=float32), 1515672071.308564)
reward: 1.0
(0, array([ -8.14432049, -293.0317688 ], dtype=float32), 1515672071.38615)
reward: 1.0
(0, array([-122.66635895, -197.63406372], dtype=float32), 1515672071.455938)
reward: 1.0
```



The image shows a terminal window with a Python script running a reinforcement learning experiment. The script is named 'start.py' and is located in the directory './results/params-26.csv'. It is being executed with the command 'start.py ./results/params-26.csv --play --load_model best -- 165x42'. The terminal output shows a series of reward values and state information, including coordinates and time steps. The reward values are consistently 1.0, indicating successful actions. The state information is a tuple containing an action (0 or 1), a 2D array of coordinates, and a time step. The coordinates are in the format [x, y], where x and y are negative values. The time step is a large integer representing the number of steps taken. The terminal output is as follows:

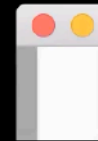
```
reward: 1.0
(1, array([-259.46856689, -79.59145355], dtype=float32), 1515672070.280003)
reward: 1.0
(1, array([-221.15769958, -80.89302063], dtype=float32), 1515672070.351538)
reward: 1.0
(0, array([-111.69728088, -137.18057251], dtype=float32), 1515672070.424357)
reward: 1.0
(1, array([-151.25306702, -72.79479218], dtype=float32), 1515672070.49599)
reward: 1.0
(1, array([-277.33825684, -60.86132812], dtype=float32), 1515672070.577052)
reward: 1.0
(1, array([-345.74316406, -55.99404907], dtype=float32), 1515672070.650317)
reward: 1.0
(1, array([-376.49749756, -87.7379837 ], dtype=float32), 1515672070.72935)
reward: 1.0
(1, array([-357.5579834 , -92.35315704], dtype=float32), 1515672070.798739)
reward: 1.0
(1, array([-342.12542725, -107.70066071], dtype=float32), 1515672070.873053)
reward: 1.0
(1, array([-332.73199463, -117.59031677], dtype=float32), 1515672070.9465)
reward: 1.0
(1, array([-376.04608154, -136.48995972], dtype=float32), 1515672071.018233)
reward: 1.0
(1, array([-477.81155396, -179.57232666], dtype=float32), 1515672071.089616)
reward: 1.0
(1, array([-370.90988159, -134.34805298], dtype=float32), 1515672071.16045)
reward: 1.0
(1, array([-262.7749939 , -173.84957886], dtype=float32), 1515672071.235157)
reward: 1.0
(0, array([-138.97036743, -242.61117554], dtype=float32), 1515672071.308564)
reward: 1.0
(0, array([ -8.14432049, -293.0317688 ], dtype=float32), 1515672071.38615)
reward: 1.0
(0, array([-122.66635895, -197.63406372], dtype=float32), 1515672071.455938)
reward: 1.0
```

The terminal window is titled 'Python Window' and has a title bar with standard macOS window controls. The terminal output is displayed in a monospaced font. The terminal window is positioned on the left side of the screen. On the right side of the screen, there is a smaller window titled 'PLE ViZDoom'. This window shows a 3D game environment with a brick wall on the right side and a grey floor. There are several small figures in the environment, some of which are yellow and some are red. The figures appear to be moving or interacting with the environment. The window has a title bar with standard macOS window controls.

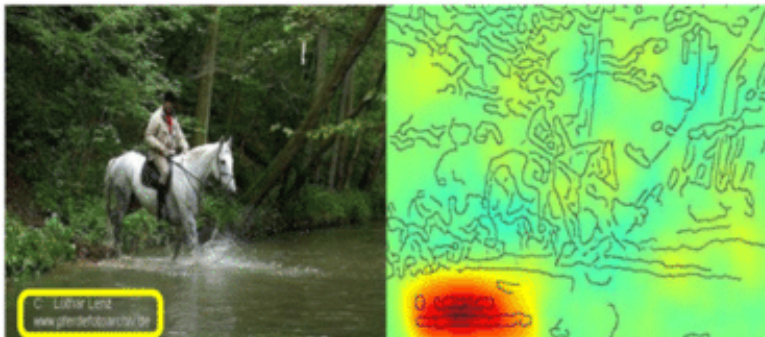
MDQN Reinforcement learning

```
Python Window
dqn-research — start.py ./results/params-172.csv --play --load_model last — 165x42

reward: 0
(0, array([ 0.8767606, -0.38870701, 0.25977108], dtype=float32), 1515673867.094446)
reward: 0
(1, array([ 0.52949798, 0.64805722, 0.02944091], dtype=float32), 1515673867.12823)
reward: 0
(2, array([ 0.28827107, -0.15524098, 0.8238377 ], dtype=float32), 1515673867.162965)
reward: 0
(2, array([ 0.13792494, 0.01867788, 0.73637486], dtype=float32), 1515673867.197187)
reward: 0
(1, array([ 0.24057153, 0.27408817, 0.11079653], dtype=float32), 1515673867.231747)
reward: 0
(1, array([ 0.69082248, 0.75590956, 0.44360059], dtype=float32), 1515673867.26579)
reward: 0
(2, array([ 0.57489681, -0.10549731, 0.63559812], dtype=float32), 1515673867.300082)
reward: 0
(0, array([ 0.58896339, 0.03665781, 0.40063021], dtype=float32), 1515673867.340268)
reward: 0
(1, array([ 0.28320673, 1.33325458, 0.684484 ], dtype=float32), 1515673867.374753)
reward: 0
(2, array([ 0.35352275, 0.93489325, 1.12027848], dtype=float32), 1515673867.409911)
reward: 0
(2, array([ 0.36812478, 0.03374528, 1.30423629], dtype=float32), 1515673867.444475)
reward: 0
(2, array([ 0.04487209, 0.29508409, 1.35212219], dtype=float32), 1515673867.478932)
reward: 0
(2, array([ 0.39015591, 0.32137662, 1.08616841], dtype=float32), 1515673867.513819)
reward: 0
(2, array([ 0.23015356, 0.19653137, 1.00086451], dtype=float32), 1515673867.548096)
reward: 0
(2, array([ 0.11266088, 0.22905825, 0.94125384], dtype=float32), 1515673867.58231)
reward: 0
(2, array([-0.03271206, 0.40794891, 0.81201708], dtype=float32), 1515673867.616775)
reward: 0
(2, array([-0.57058179, -0.00976088, 1.04836833], dtype=float32), 1515673867.658651)
reward: 0
```



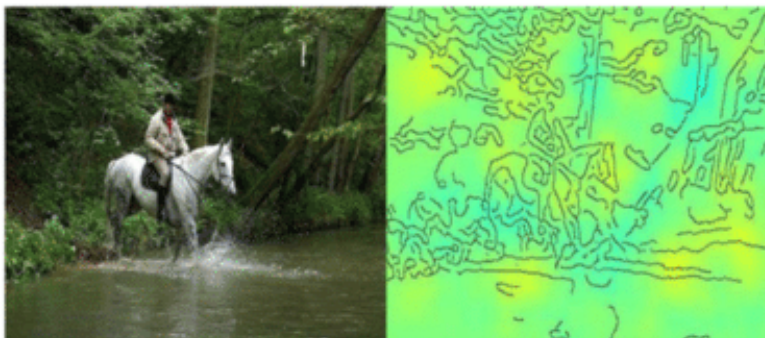
Horse-picture from Pascal VOC data set



Source tag present



Classified as horse

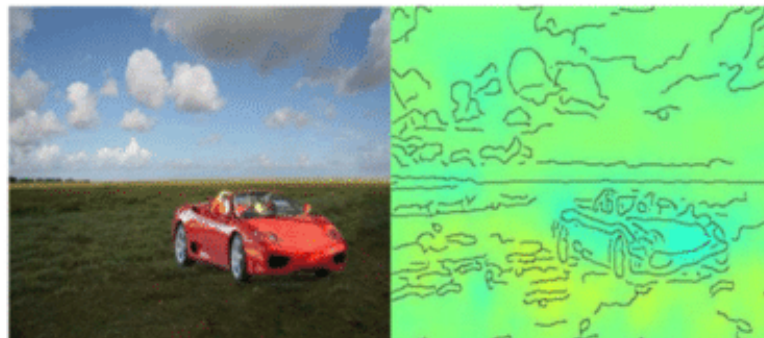
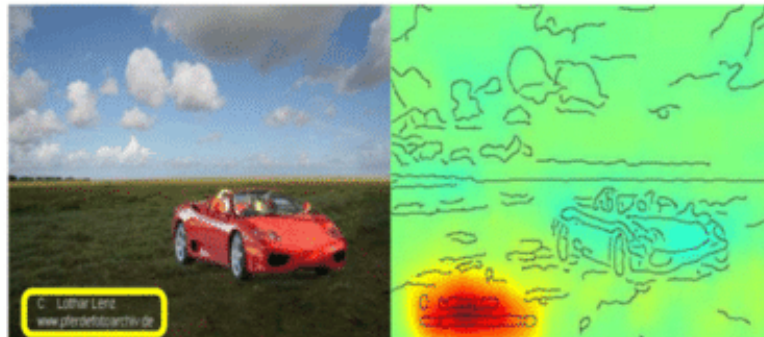


No source tag present

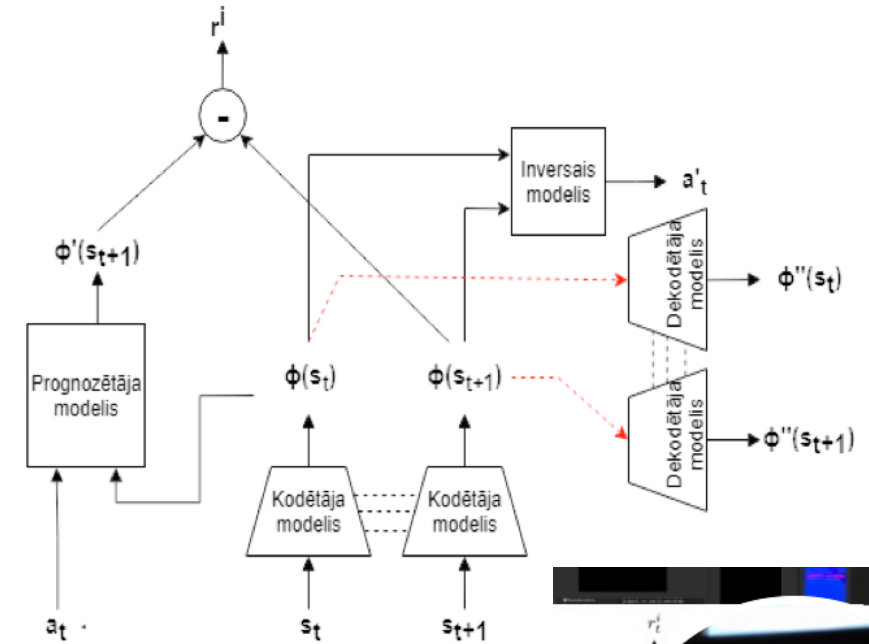


Not classified as horse

Artificial picture of a car



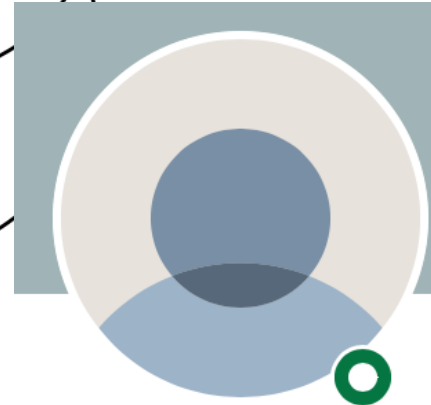
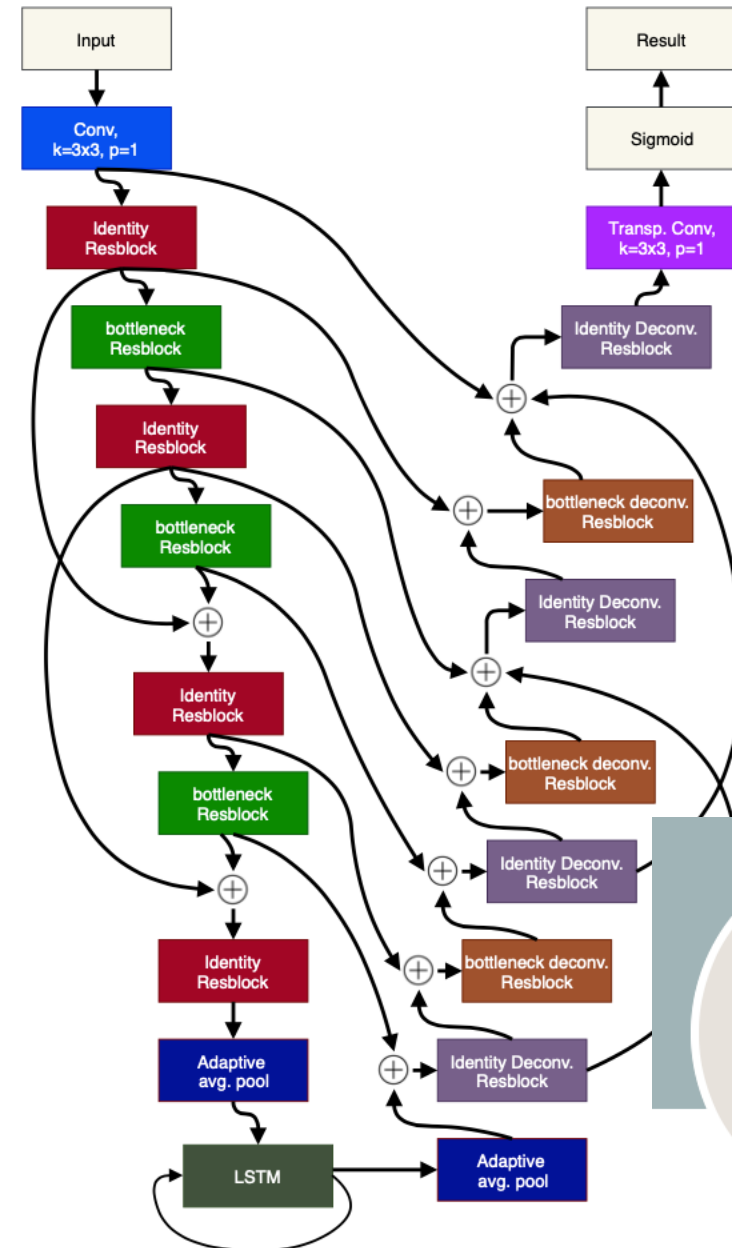
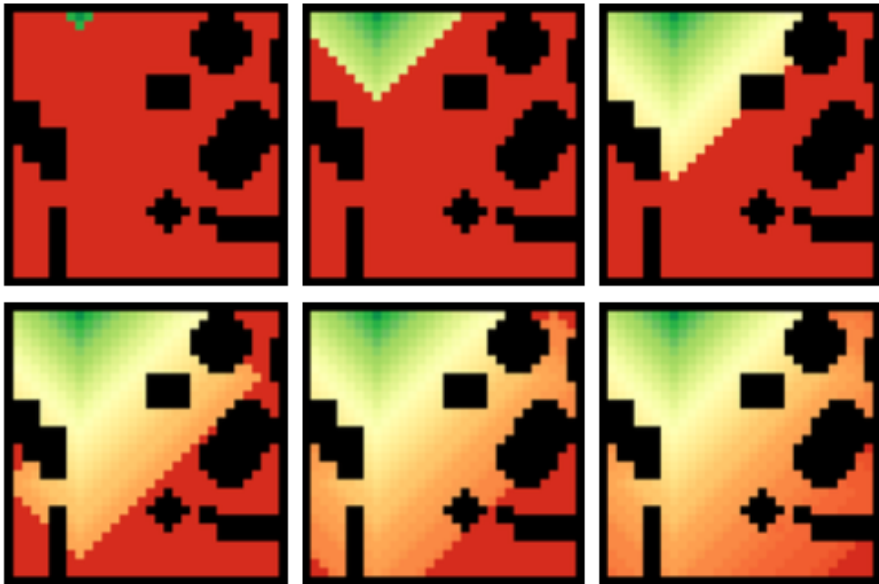
Mākslīgais intelekts izrāda ziņkārību



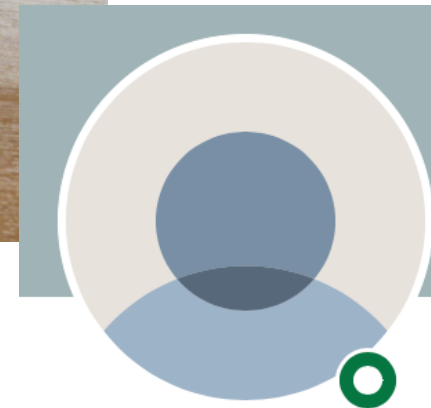
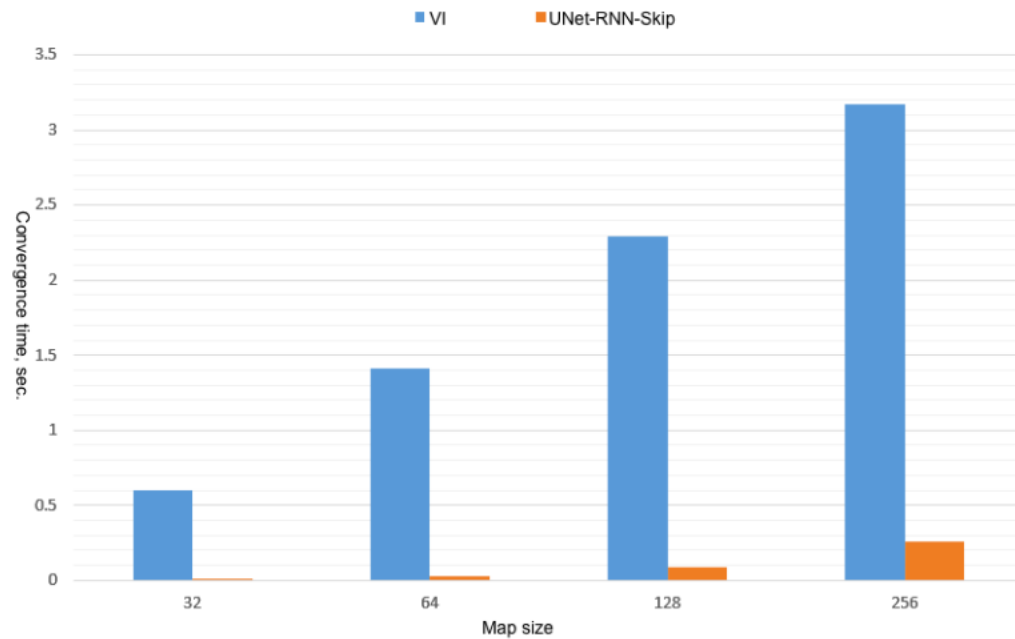
Māris Ancāns · 1st

VIN Model

$$V_{i+1}(s) := \max_a \left\{ \sum_{s'} P_a(s, s') (R_a(s, s') + \gamma V_i(s')) \right\}$$



Mākslīgais intelekts plāno ātrāk



Modelling chaotic systems

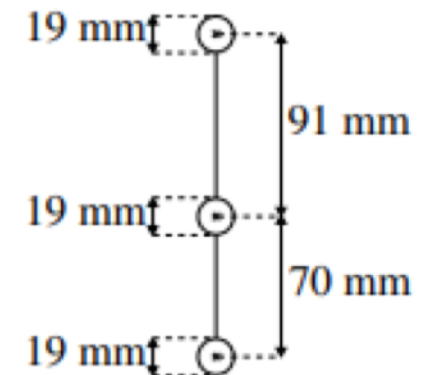
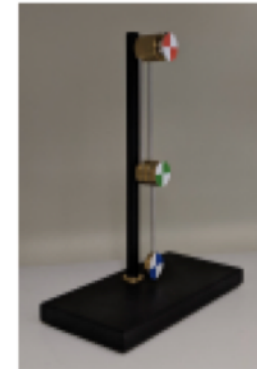
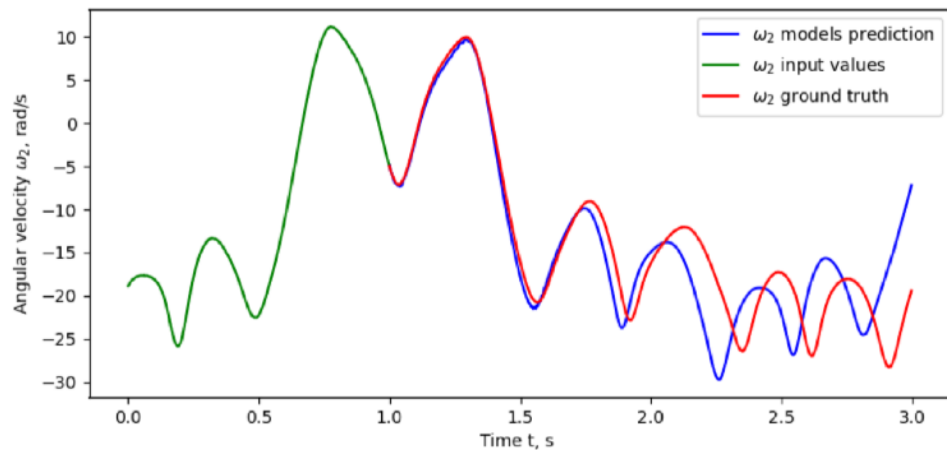
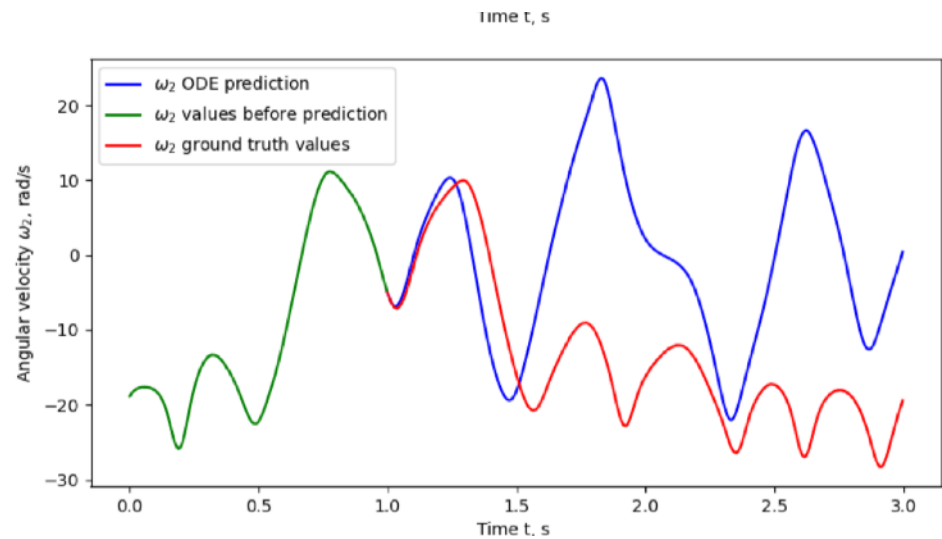
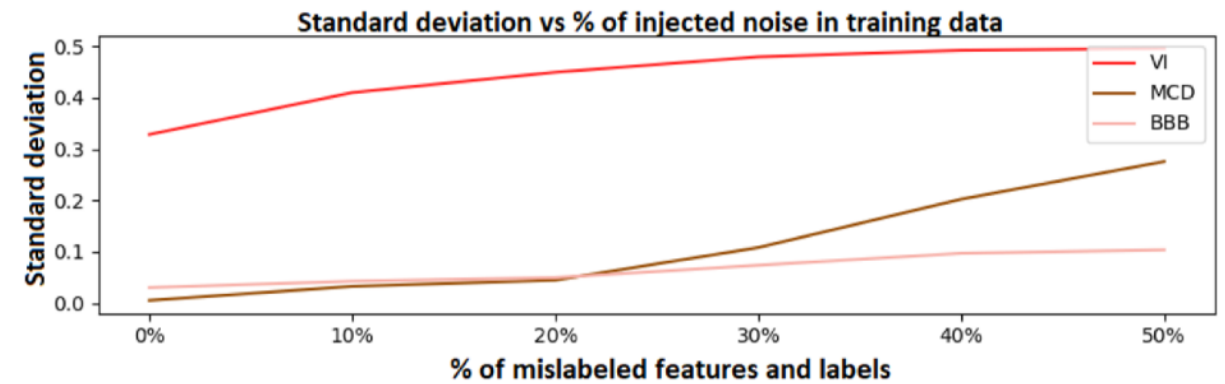
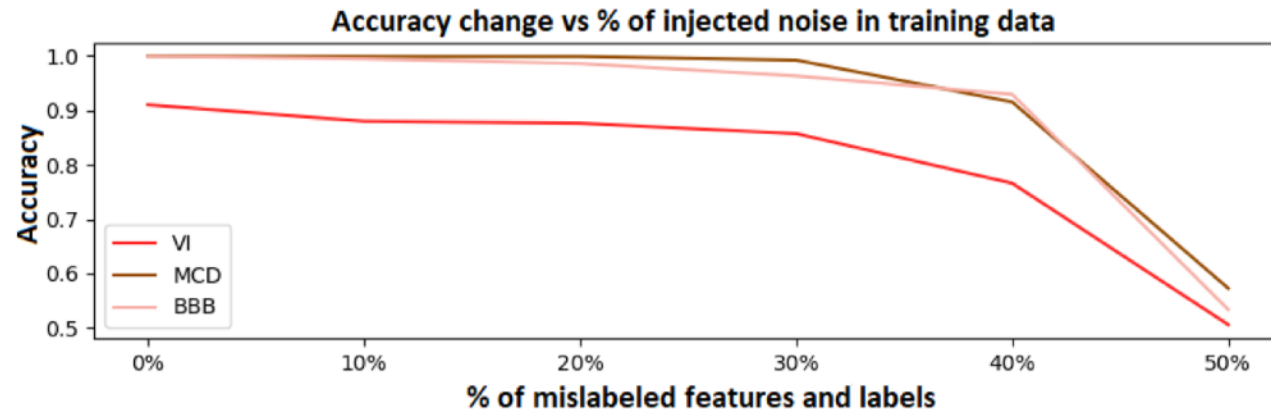


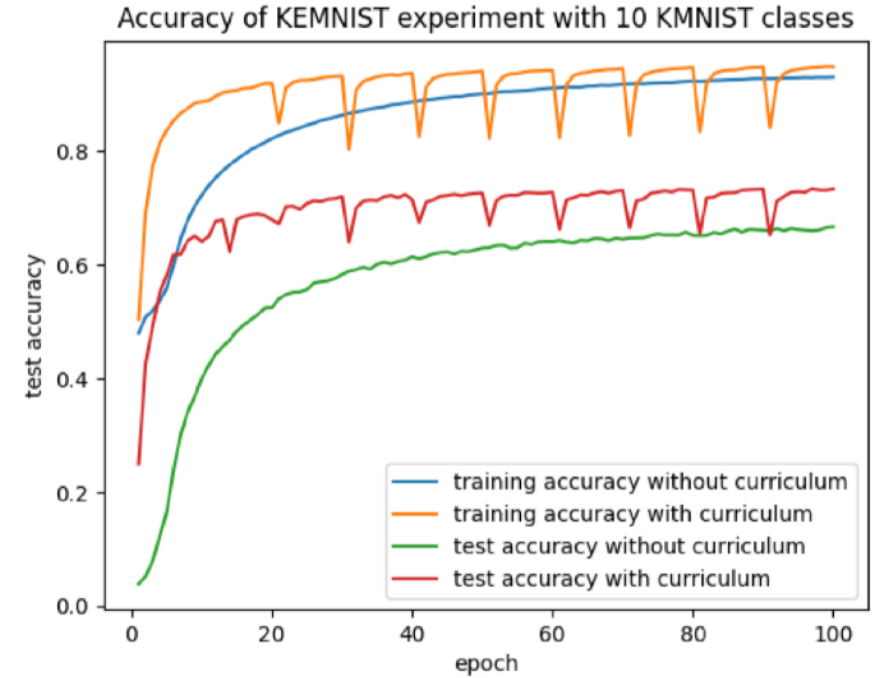
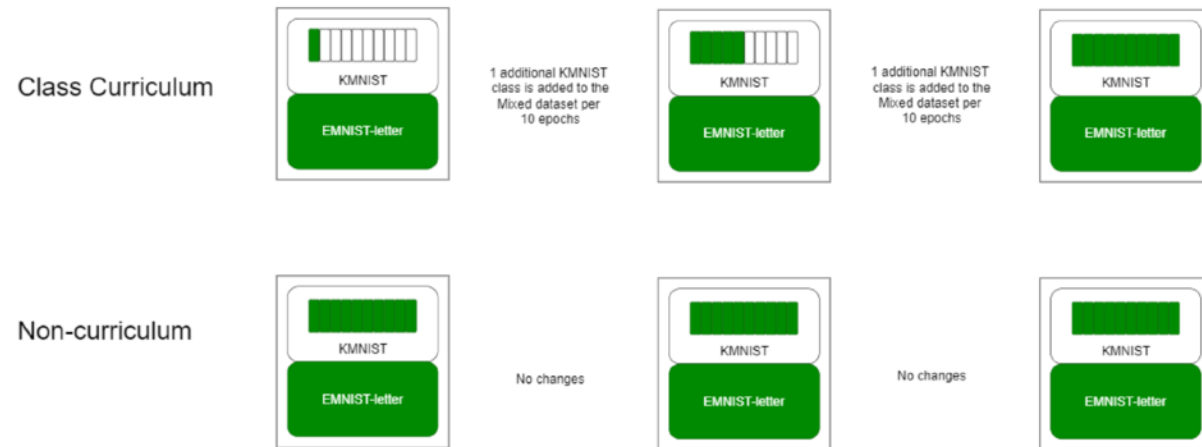
Figure 1: The pendulum used for the experiment and its geometric parameters [7]

Variational Inference

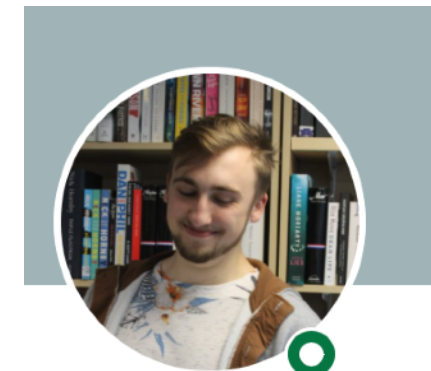
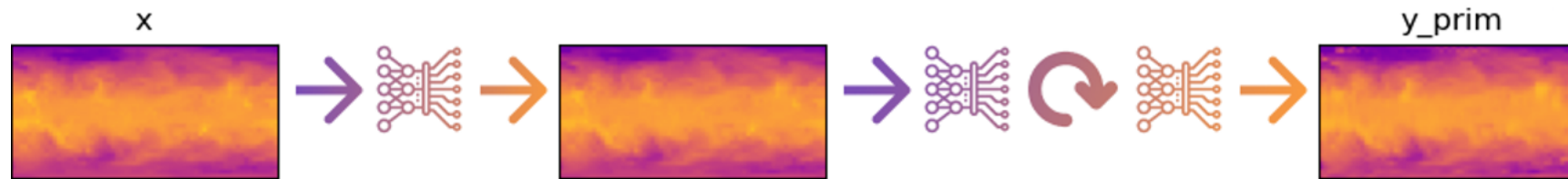
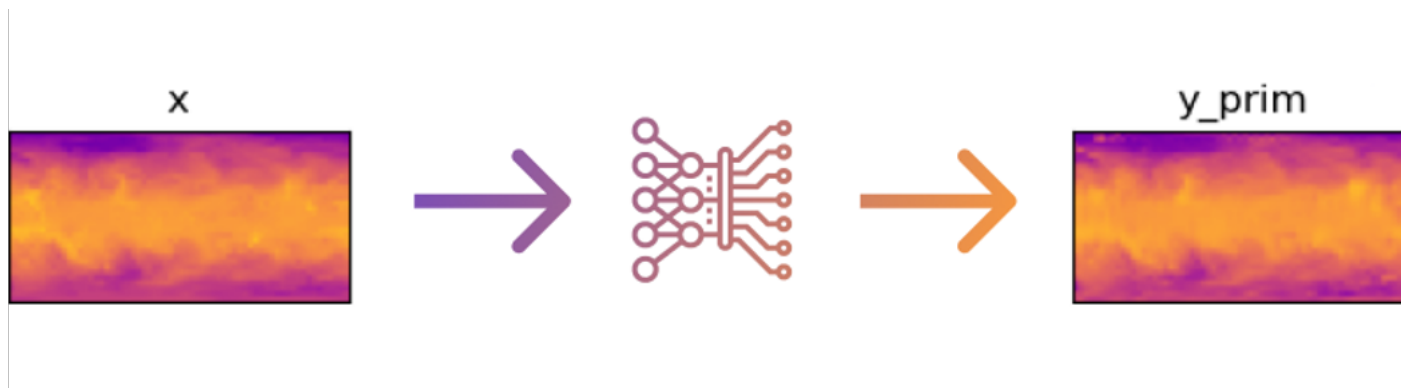
To estimate cleanliness of dataset



Curriculum learning for classification



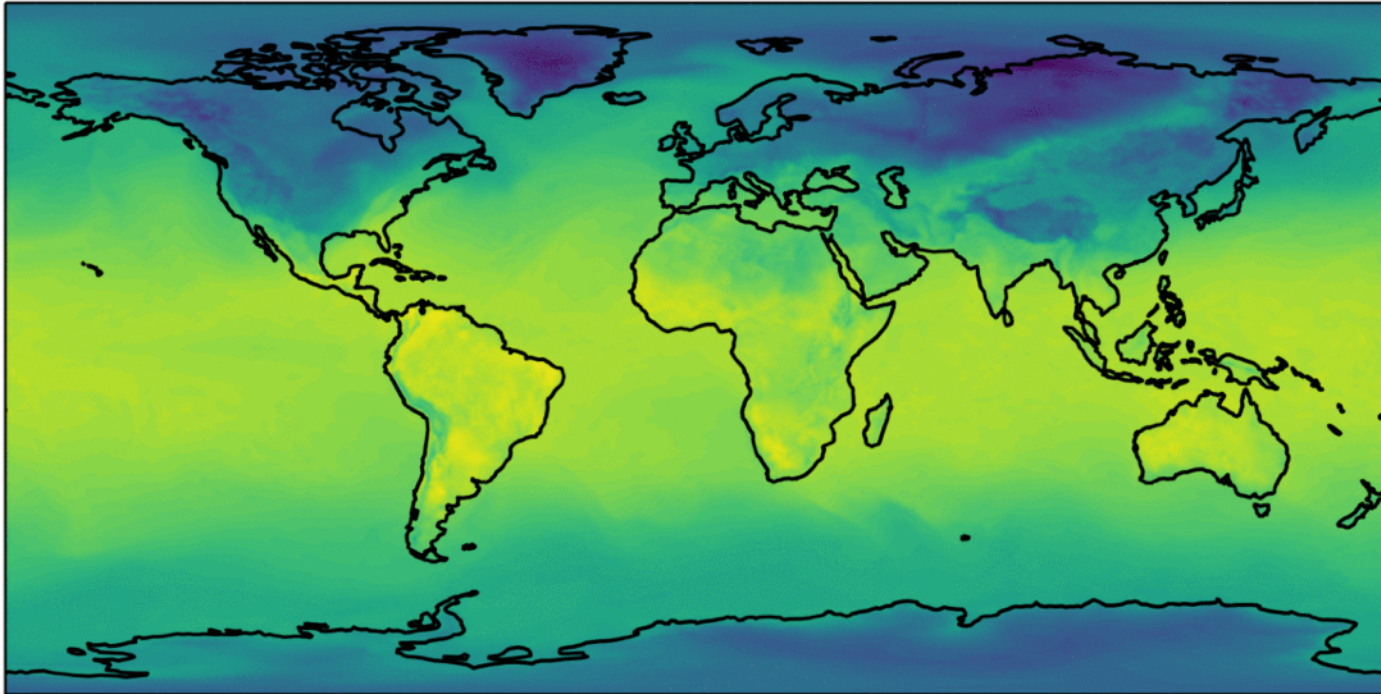
Mākslīgais intelekts prognozē laika apstākļus



Kristofers Volkovs

Mākslīgais intelekts prognozē laika apstākļus

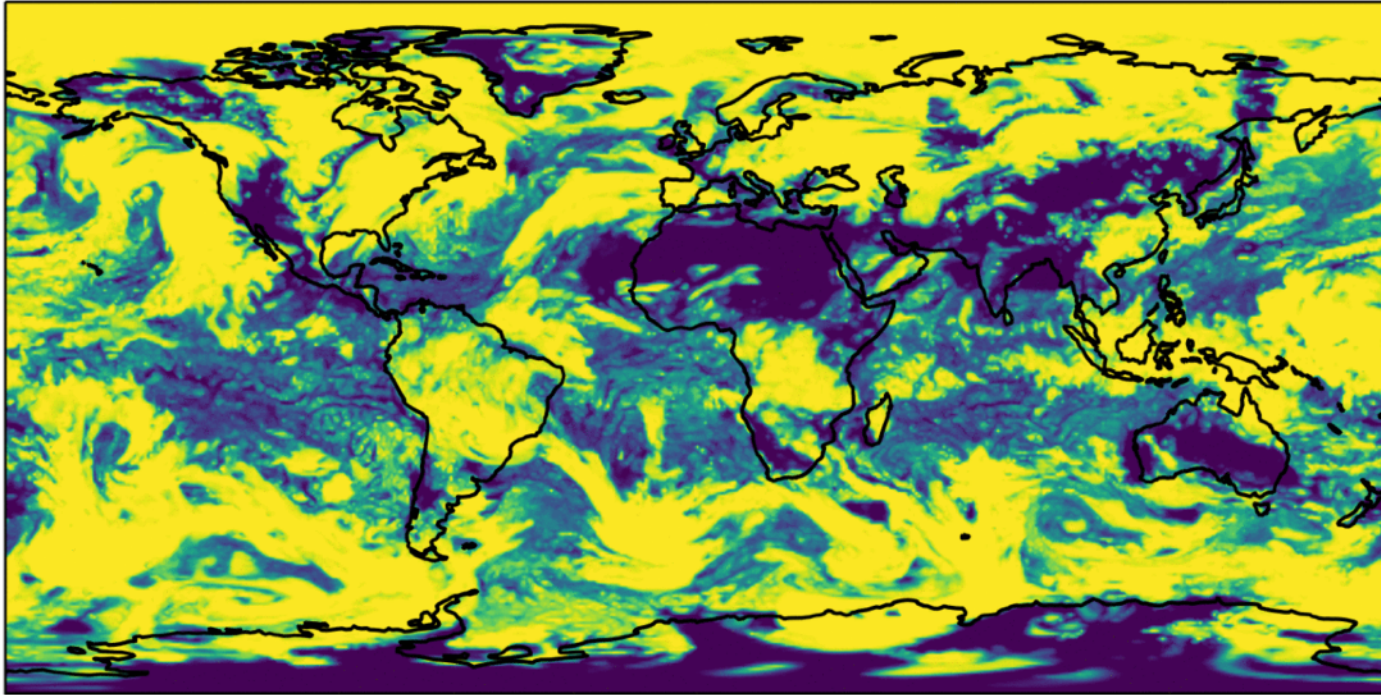
Temperatūra 2m virs zemes virsmas



Kristofers Volkovs

Mākslīgais intelekts prognozē laika apstākļus

Kopējais mākoņu pārklājums



Kristofers Volkovs

Mākslīgais intelekts vilto rokrakstus

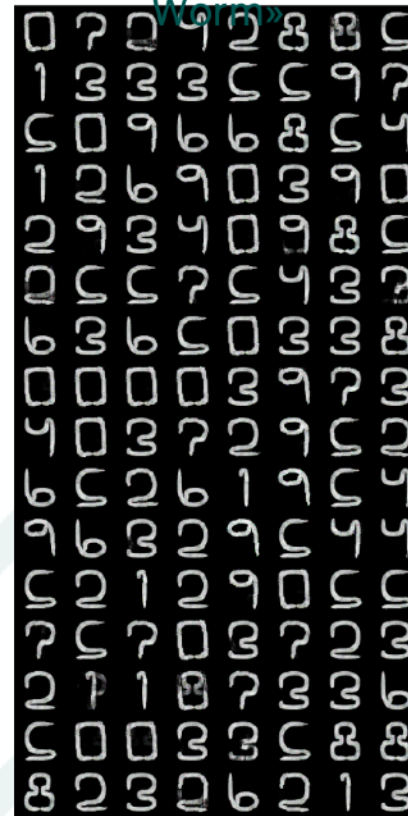
EMNIST datu kopa



Rakstzīmju stils
«Alien»



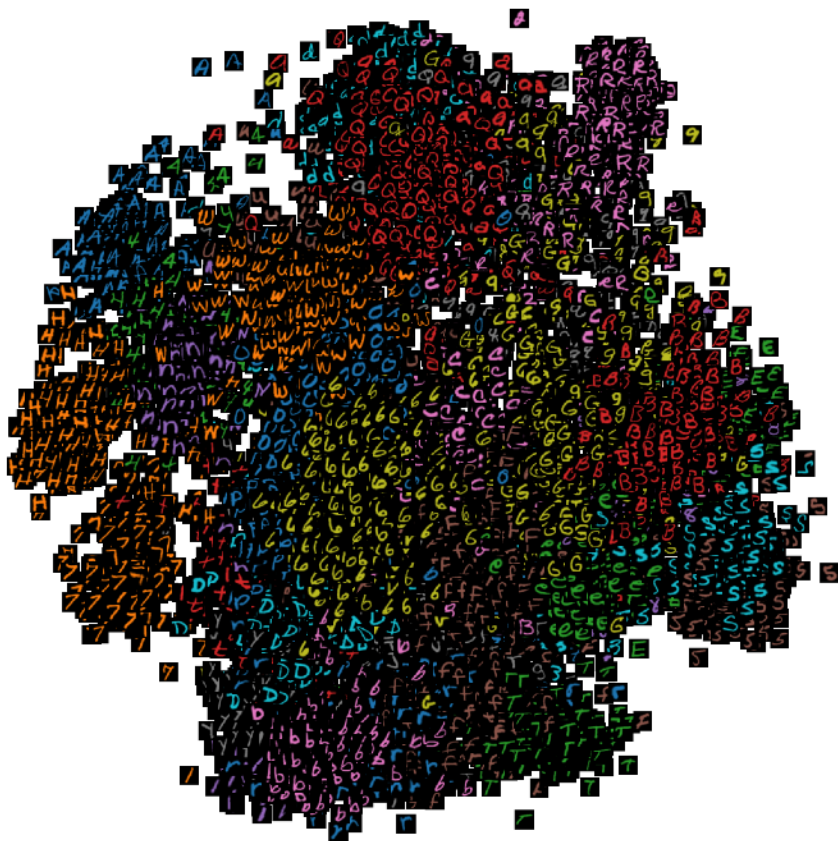
Rakstzīmju stils «Space
Worms»



Stefan Dayneko

Nulles šāviena modeļi

Training

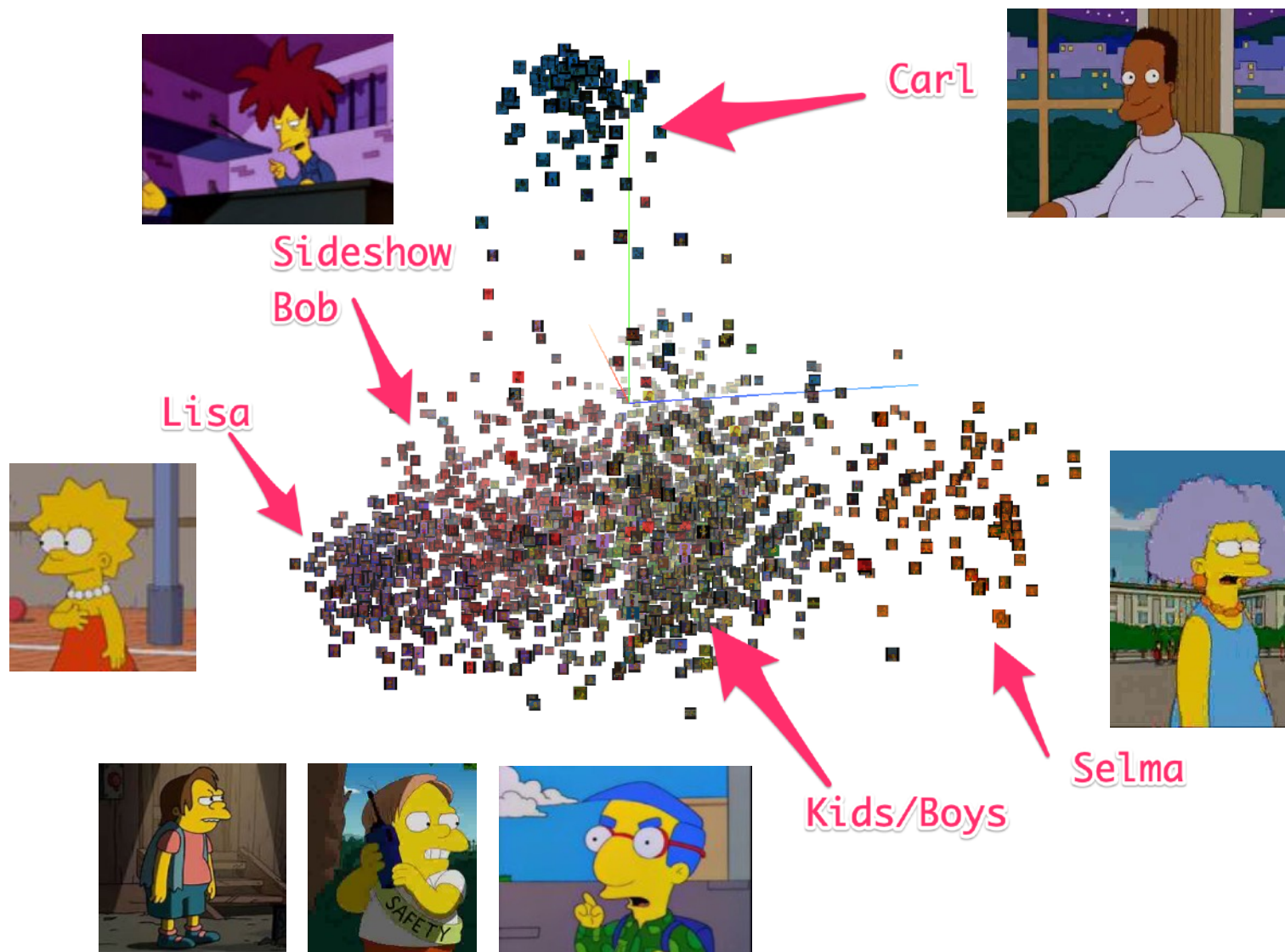


Testing

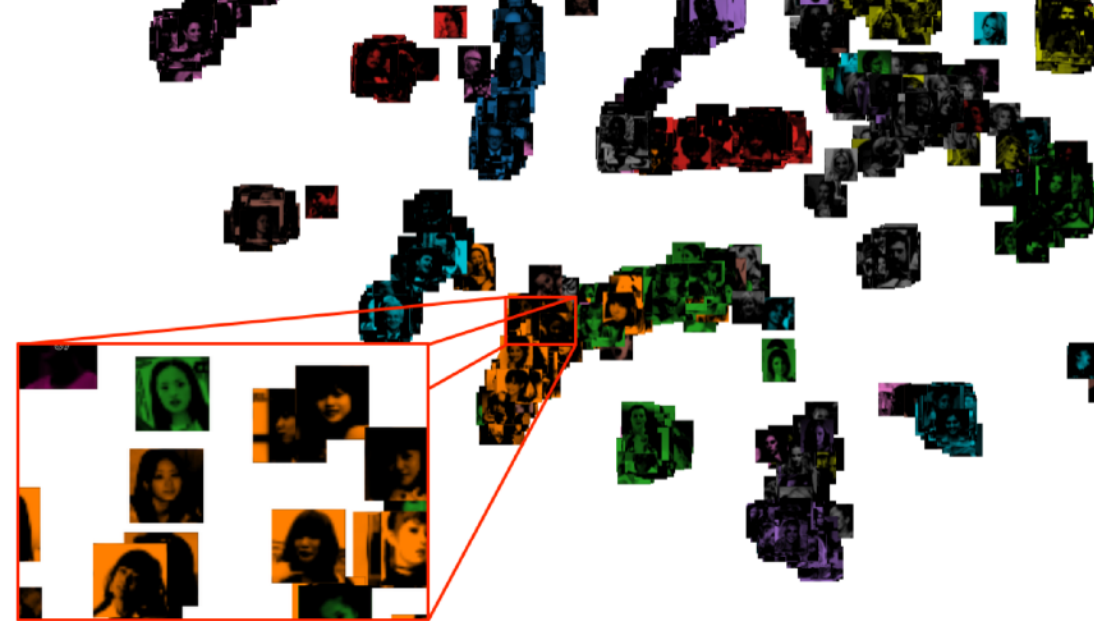
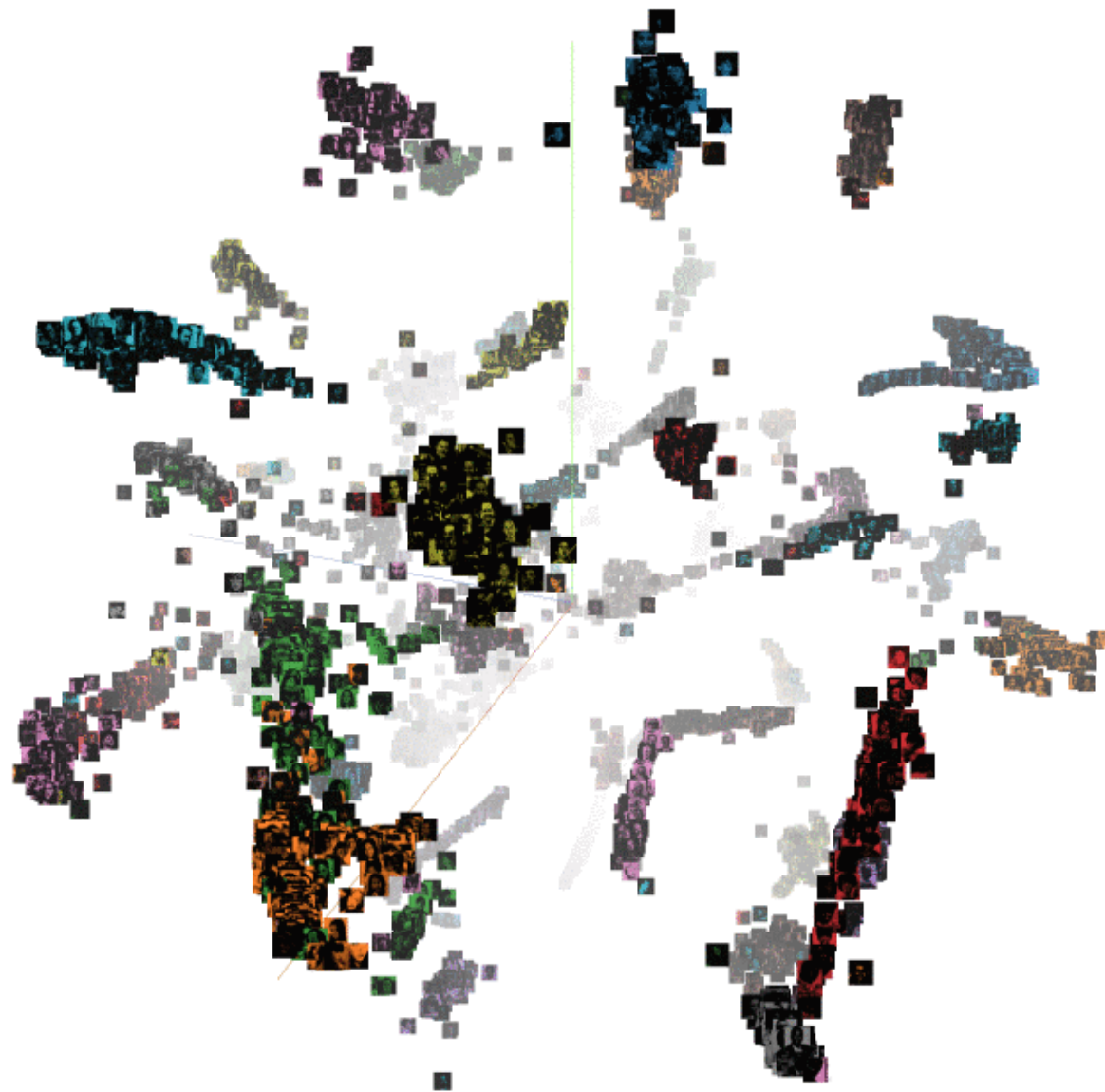


Exponential triplet loss, ICCDA 2020

Nulles šāvienu modeļi



THE
SIMPSONS

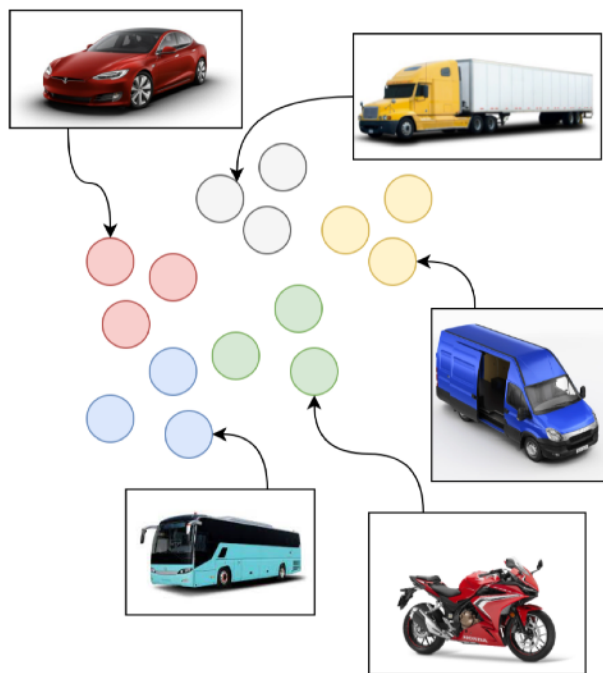


Exponential triplet loss, ICCDA 2020

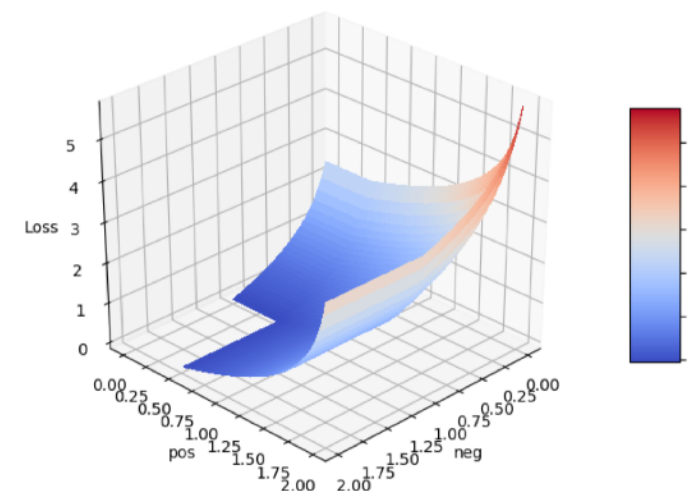
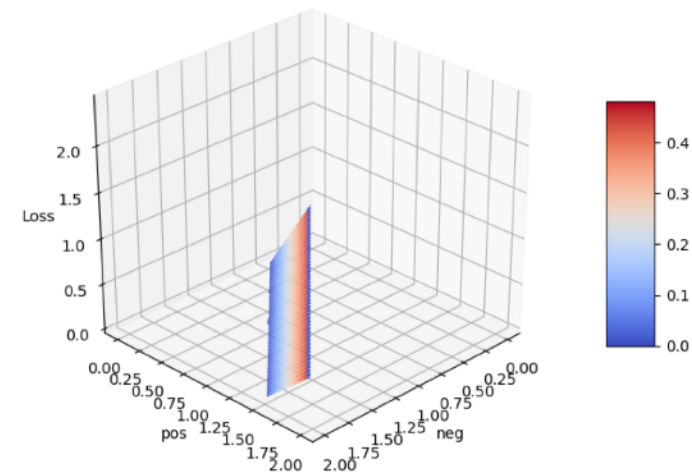
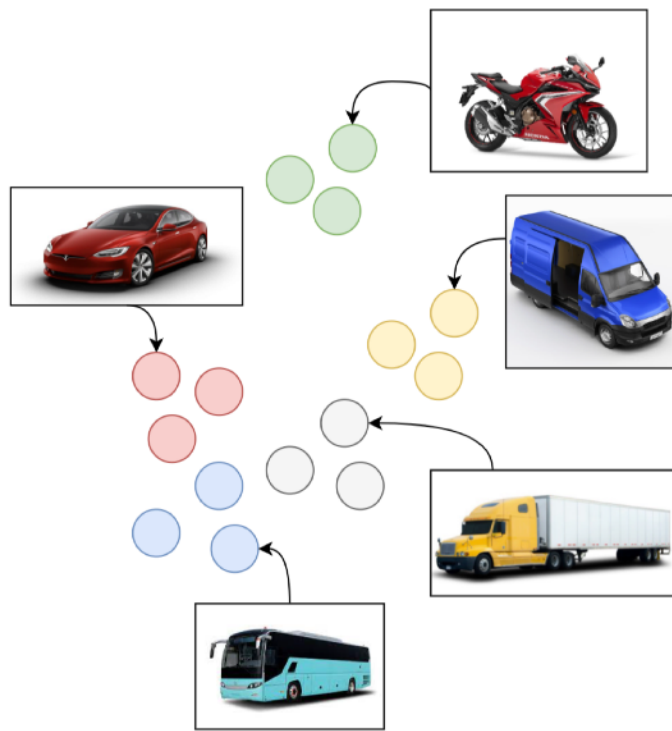
Deep Metric Learning

Zero-shot learning

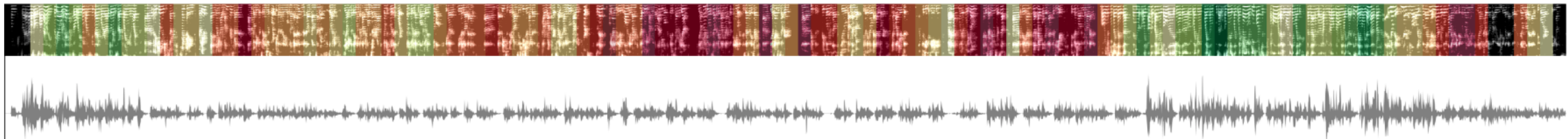
Classification with CCE



Classification with DML



asya

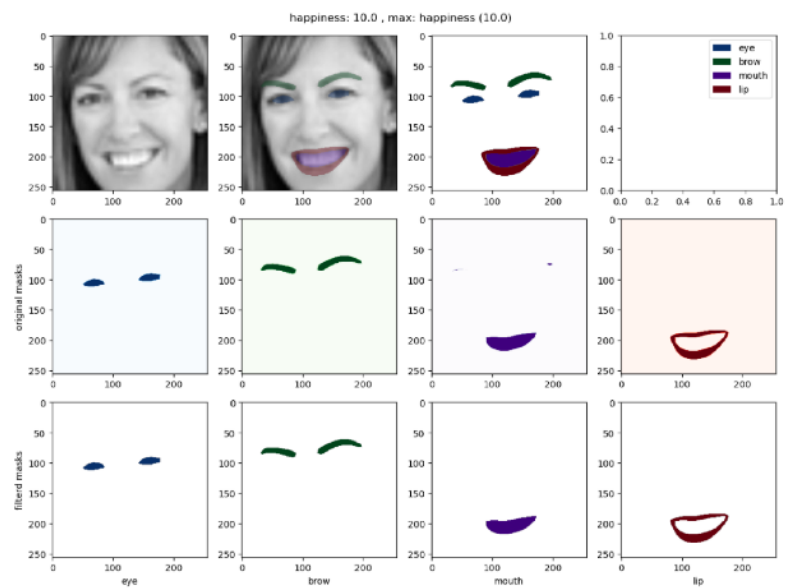


* Green frames represent target speaker. Red frames are furthest away from target speaker.



Demo:

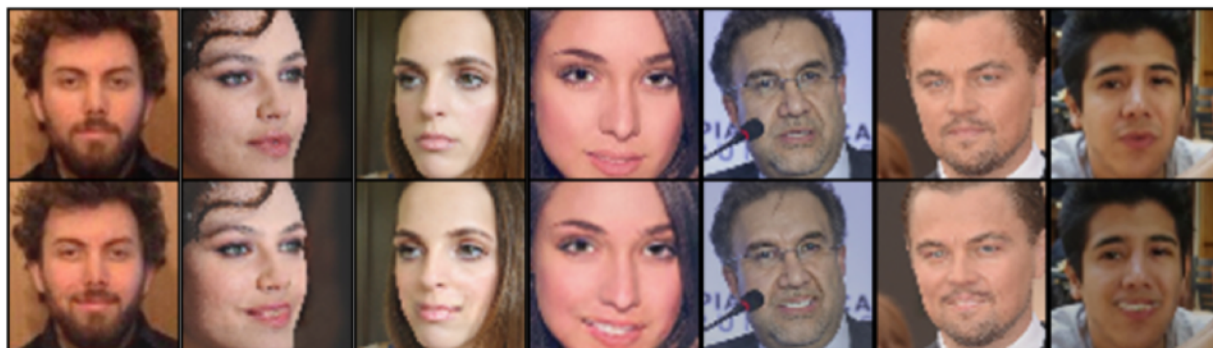
Emotion classification using Facial features



Cycle-GAN



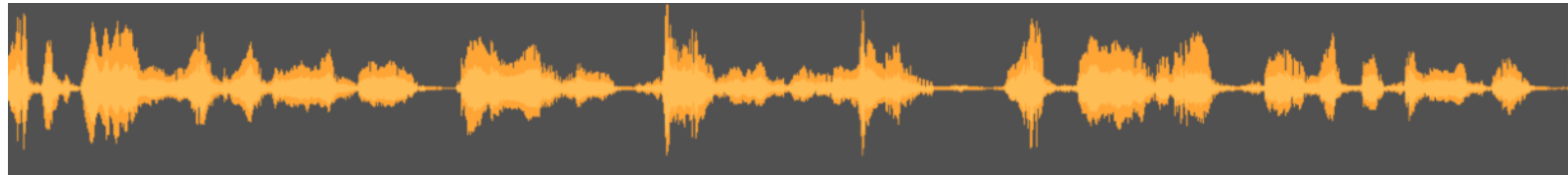
Star-GAN



Emotion classification using tone of voice

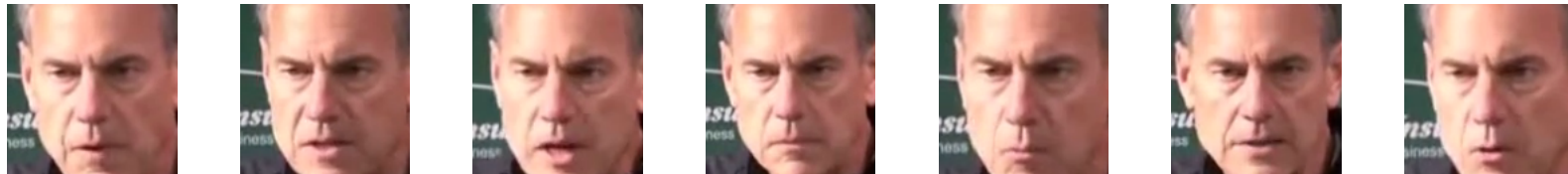
Happiness

Interview of winners after a game



Anger

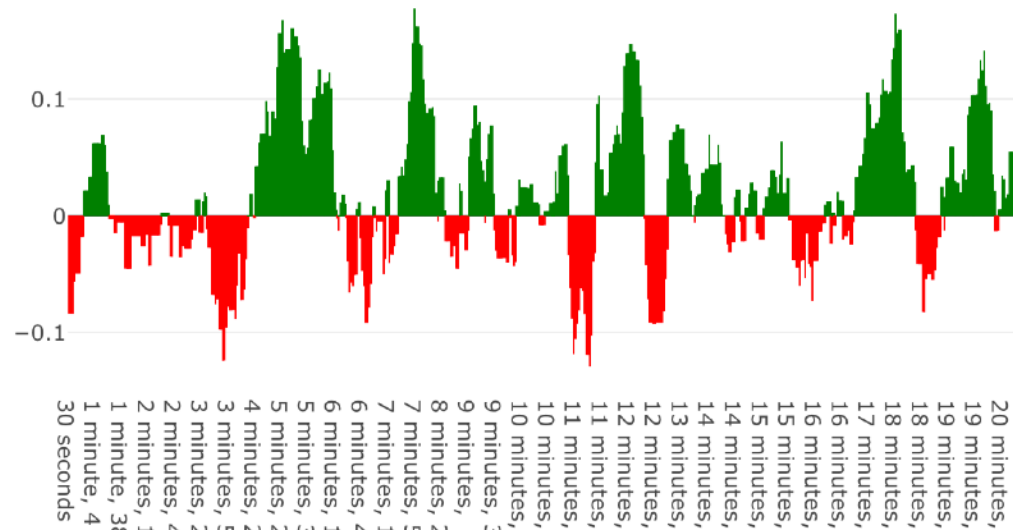
Interview of losers after a game



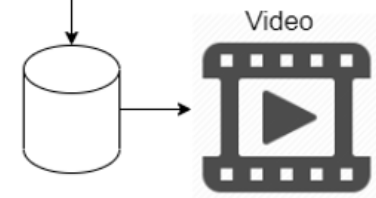
Emotion Analysis Results

Dominant emotion: happiness

Emotions in conversation



Metadatu izgūšana un failu organizēšana

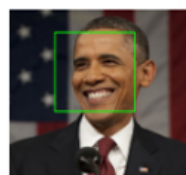


Datu kopa

Video



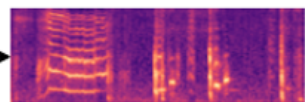
kadru izgūšana



Seju detektēšana



Audio izgūšana



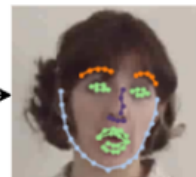
Mel spektrogrammas izgūšana



Seju kodēšana



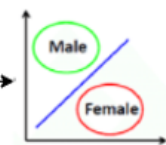
Sejas segmentācija



Sejas punktu detektēšana + rotācijas noteikšana



Sejs lenķu noteikšana



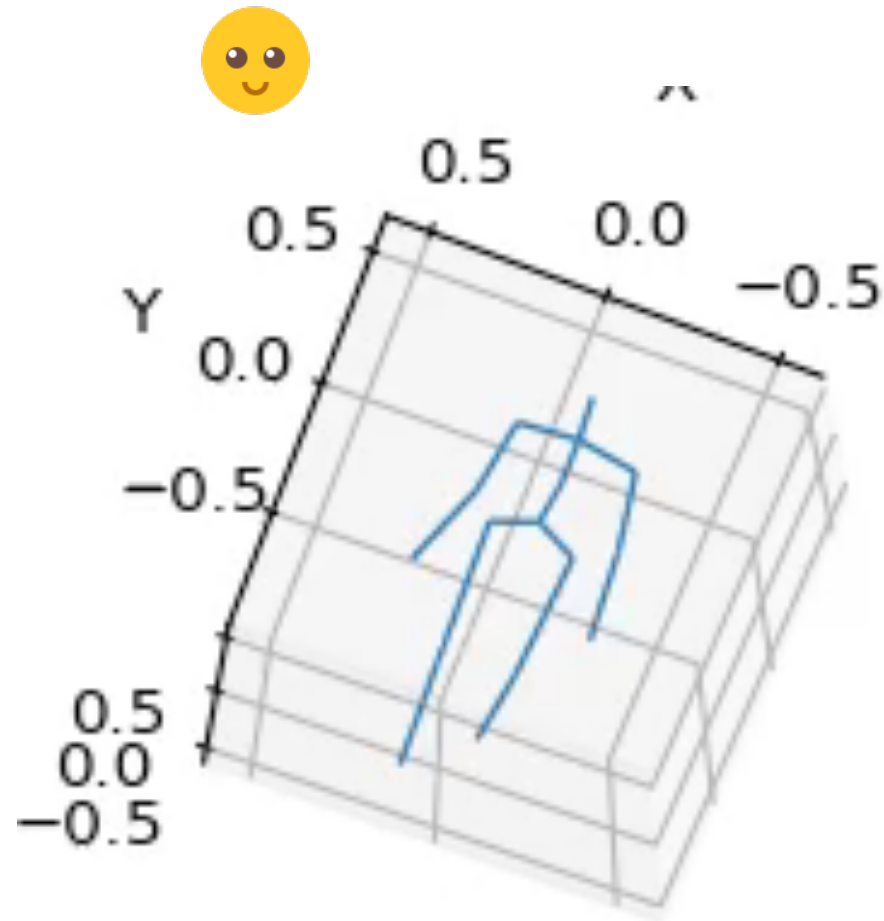
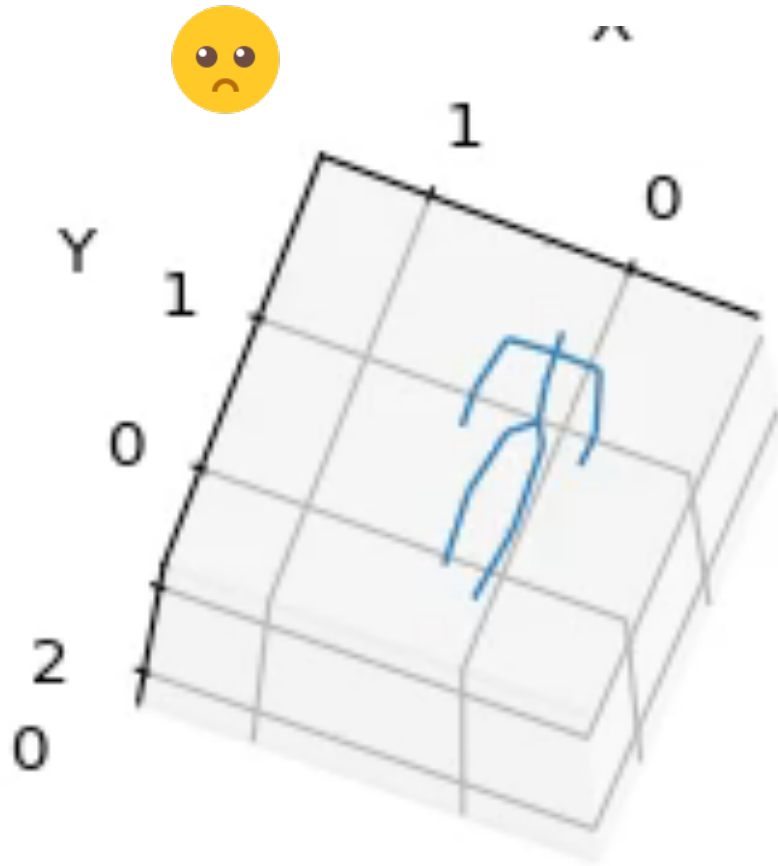
Dzimuma klasificēšana



Maskas un rotācijas kombinēšana

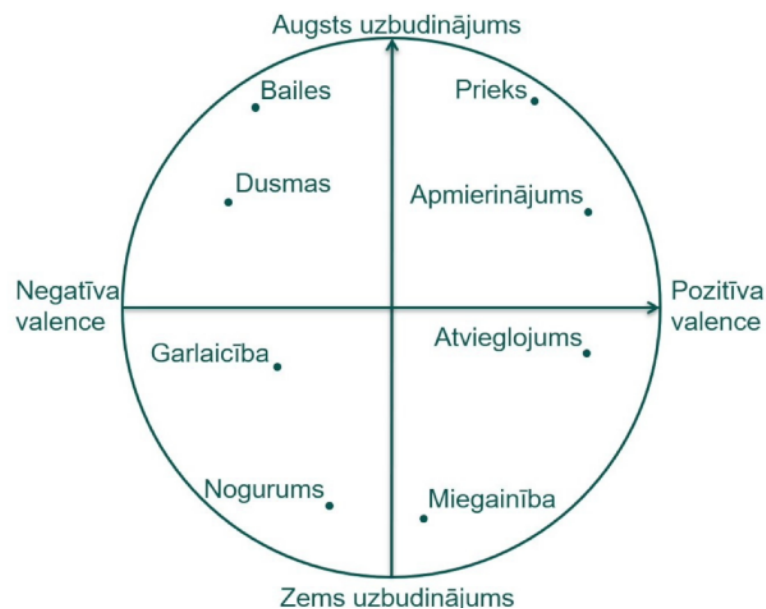
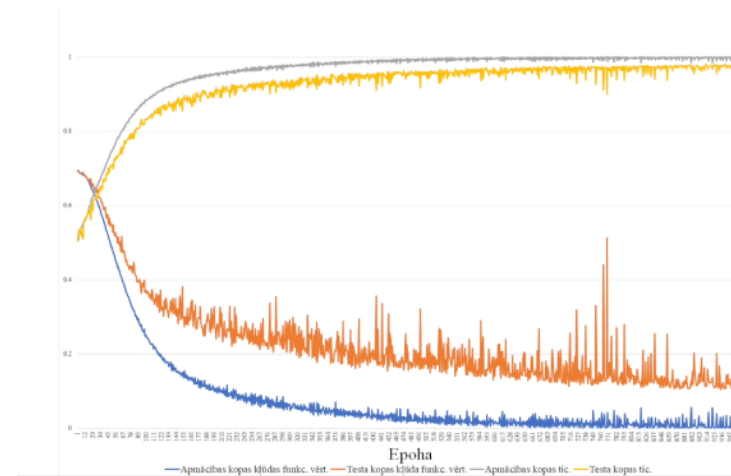
01.7	01.1	01.1	01.8	01.1	01.4	01.1
01.7	01.1	01.8	01.5	01.5	01.6	01.6
01.1	01.2	01.3	01.3	01.3	01.7	01.5
01.1	01.2	01.3	01.3	01.3	01.7	01.5
01.1	01.2	01.3	01.3	01.3	01.7	01.5
01.1	01.2	01.3	01.3	01.3	01.7	01.5
01.1	01.2	01.3	01.3	01.3	01.7	01.5
01.1	01.2	01.3	01.3	01.3	01.7	01.5
01.1	01.2	01.3	01.3	01.3	01.7	01.5
01.1	01.2	01.3	01.3	01.3	01.7	01.5

Mākslīgais intelekts atpazīst emocijas no gaitas



Normunds Neimanis

Mākslīgais intelekts atpazīst emocijas no sirds ritma

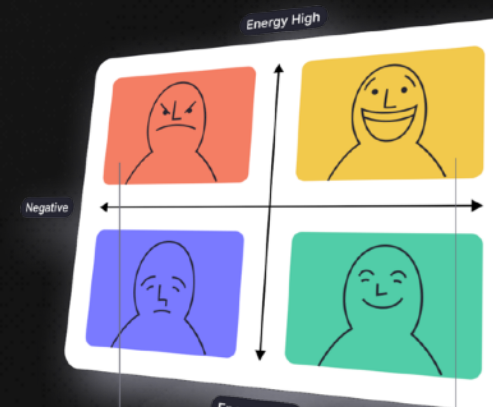


Aiga Andrijanova

Soft skills

Emotion classification

- Balss tonis (Dusmas, Bēdas, Prieks) - 90.6%
- Neverbālās emocijas - 83%
- Teksta noskaņojums - 87%
- Runātāju pārtraukšana
- Klausīšanās attiecība
- Mikro-pauzes, aktīvā klausīšanās



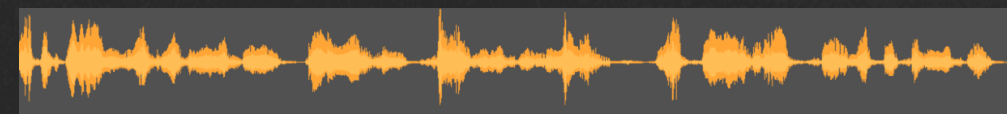
**Creates
Tension**

Negative emotions like dominance
can create lack of trust.

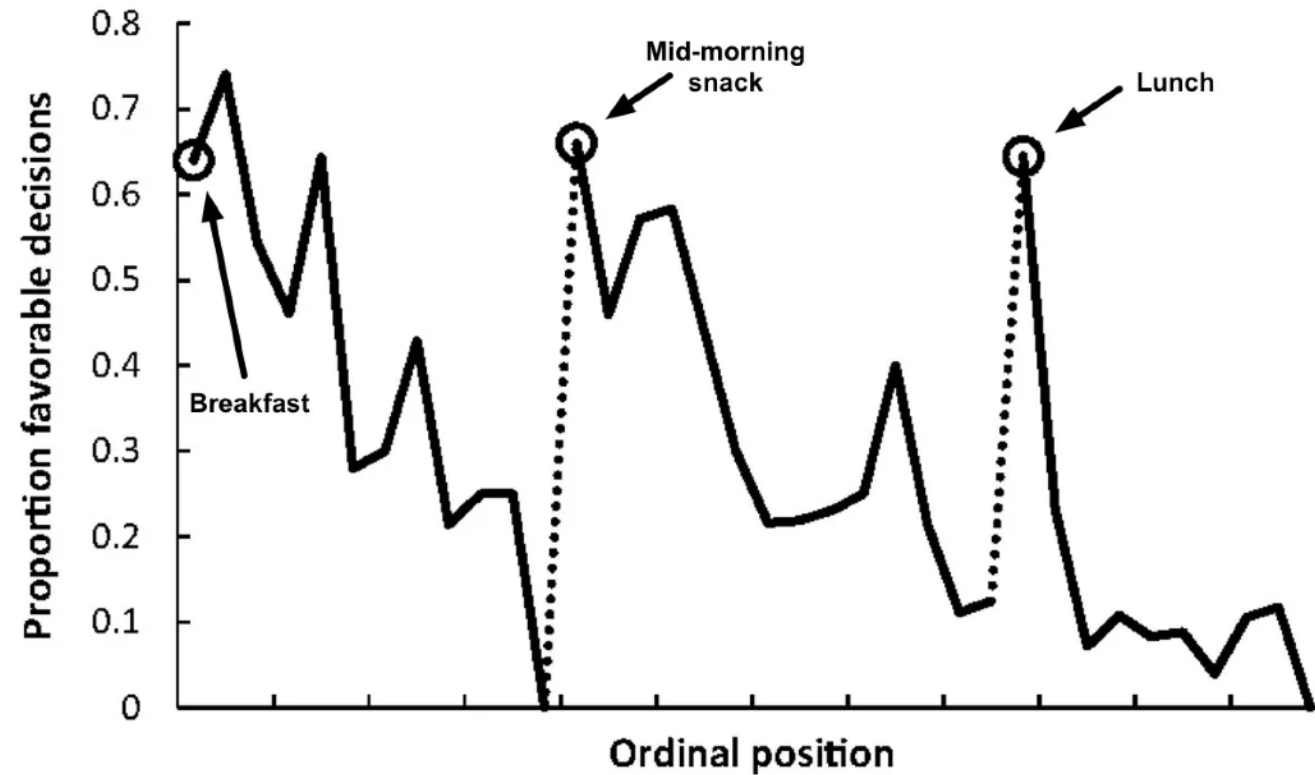
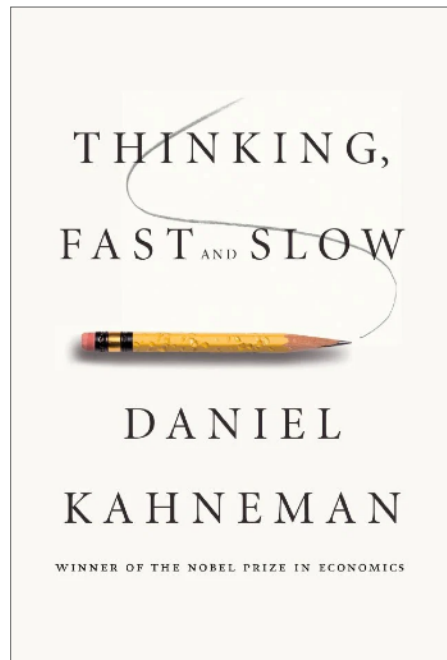


**Increases
Connection**

Upbeat emotions and humor
promotes trust and decision making.



Emocijas un lēmumi



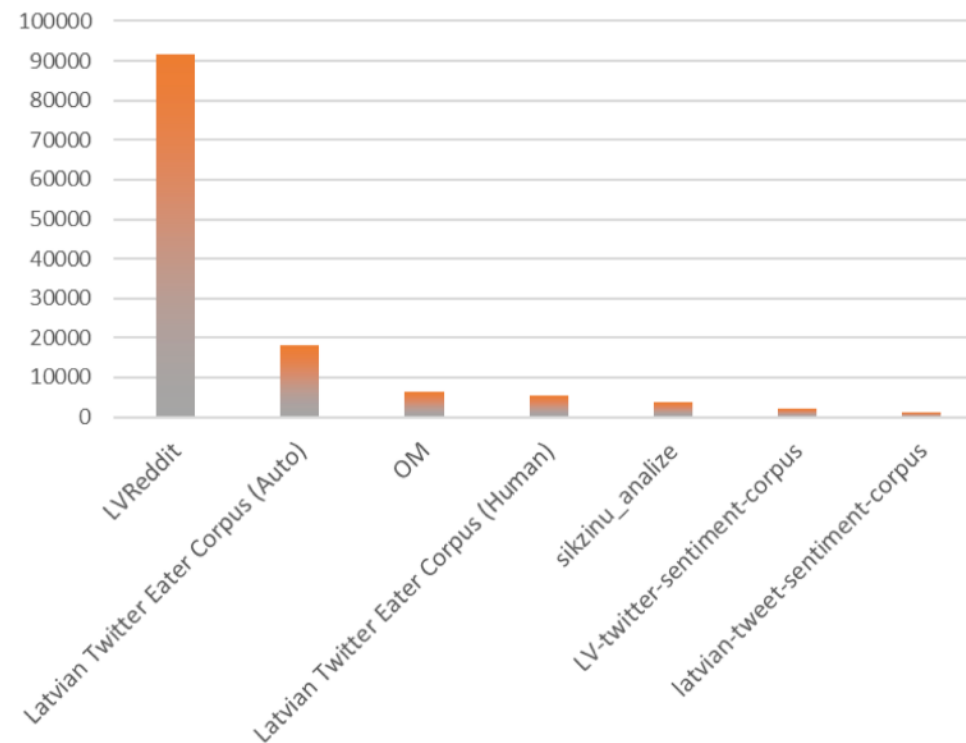
Teksta noskaņojums

"Using Large Language Models to Improve Sentiment Analysis in Latvian language", Pauls Purvins, Evalds Urtans, Vairis Caune, ICIC 2023

Table 2: Top 5 prompts of 24 prompts tested and accuracies

Prompt	Accuracy
Based on the tone of the text, what is your overall impression? Choose one of the following: Positive, Negative, or Neutral.	82.0%
What is the general sentiment of this sentence? Choose one of the following: Positive, Negative, or Neutral.	79.0%
Balstoties uz teksta toni, kāda ir kopējā noskaņa - pozitīva, neitrāla vai negatīva?	78.2%
Based on the tone of the text, would you categorize the overall sentiment as positive, neutral, or negative?	78.0%
Does the author's language in this sentence indicate a positive, neutral, or negative sentiment?	77.4%

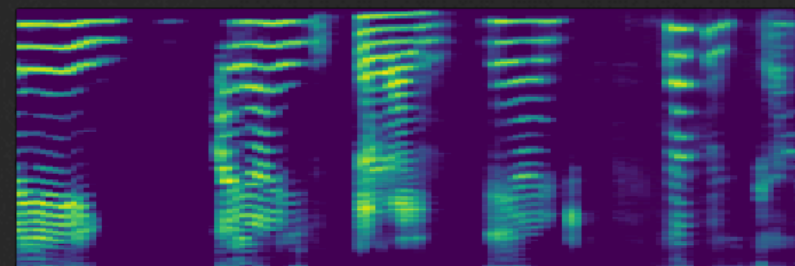
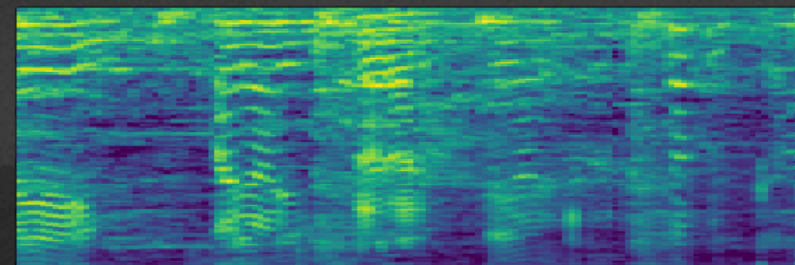
	Positive	Neutral	Negative
Positive	127	37	3
Neutral	13	141	13
Negative	2	30	135



Priekšapstrāde

Speech enhancement

- Noise removal, accent removal
 - [asya.ai](#) PESQ: 2.595 (400k+ EUR)
 - [krisp.ai](#) PESQ: 2.266 (17m EUR)





KEEP

CALM

THERE IS

~~AN APP~~

AI

FOR THAT

theresanaiforthat.com

Youtube, LinkedIn: AI Ranch



Evalds Urtans
evalds@asya.ai

