

enviro)tech

Esri tehniskais vebinārs

MĀKSLĪGAIS INTELEKTS ARCGIS PLATFORMĀ



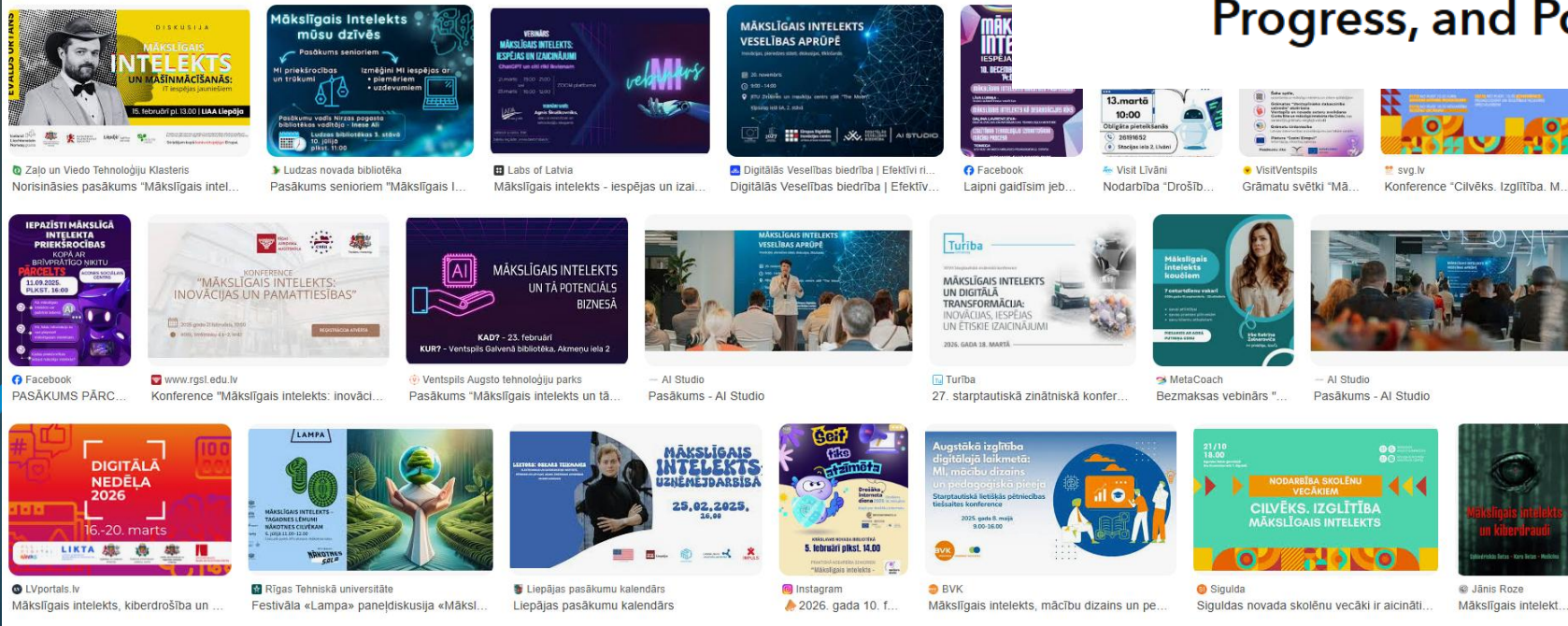
25.MARTS

14:00 - 15:30

Tehniskā vebināra mērķis. Kādēļ izvēlēties pievienoties šim vebināram?

ArcNews | Thought Leader | Summer 2024

Artificial Intelligence in GIS: Promise, Progress, and Possibilities



ArcGIS un MI = sadarbība

MI integrācija ar ĢIS



Vairāk kā 100 iepriekš trenēti modeļi

GeoMI
(Rīki un modeļi)



Produktivitāte

MI asistenti
(Uzlabo efektivitāti un produktivitāti)

MI aģenti
(automātizācija, modeļi)

MI ArcGIS platformā

GIS un MI iekļaušana Jūsu organizācijas GIS procesos un darbplūsmās



GeoMI

Rīki un modeļi

Zinātniskā attīstība



MI asistenti

*Uzlabota pieejamība
un efektivitāte*

Produktivitāte



MI aģenti

*Automatizācija, lietotņu
izveide*

Sadarbība



ArcGIS

- GIS rīki un dati
- Aģenti
- Modeļi
- LLMs

GeoMI rīki un modeļi

MI vadīta ģeotelpisko datu apstrāde un analītika

Datu veidi:

- Tālizpēte, 3D, teksta dati, vektordati, laika sērijas

Darbplūsmas:

- Elementu izvilkšana, izmaiņu noteikšana u.c.
- Līdzības meklēšana, prognozējošā analīze, anomāliju noteikšana u.c.

GeoMI modeļi:

- Uzreiz pieejami, ArcGIS Living Atlas datu galerija
- Iespēja apmācīt savus modeļus

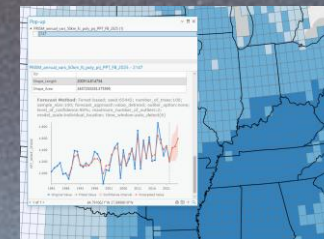


Objektu atrašana

3D element izvilkšana



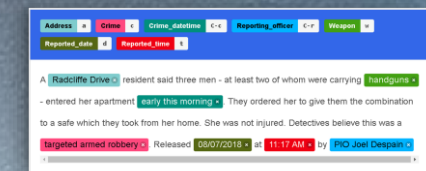
Plānošana



Izmaiņu noteikšana

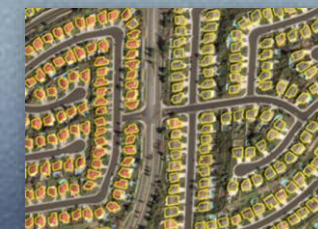


Ierakstu izvilkšana

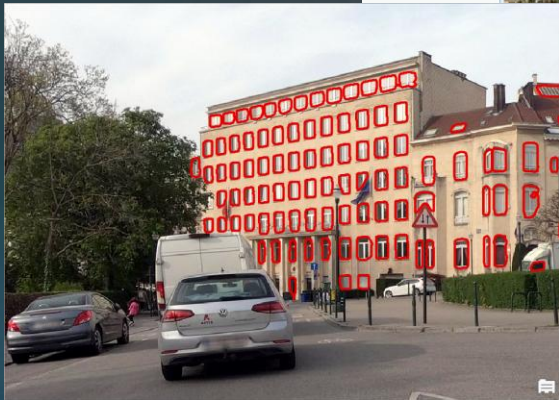
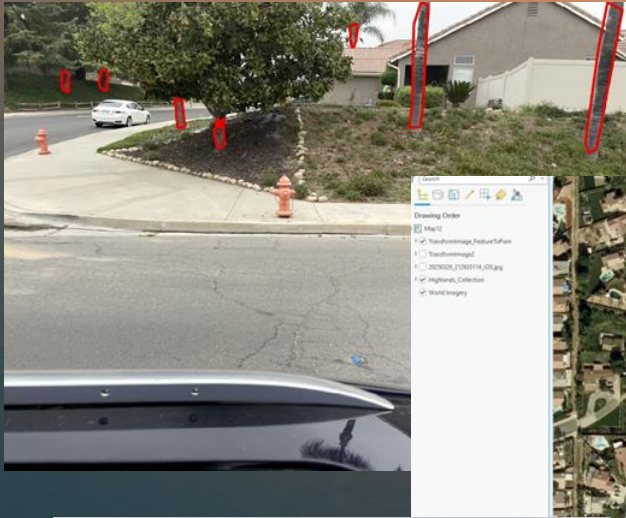


Zemes seguma klasifikācija

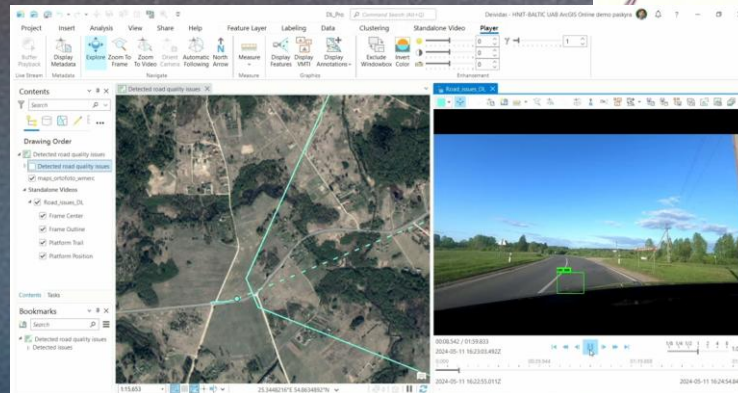
Ēku detektācija



GeoMI rīki un modeļi



Orientētie attēli un
GeoMI



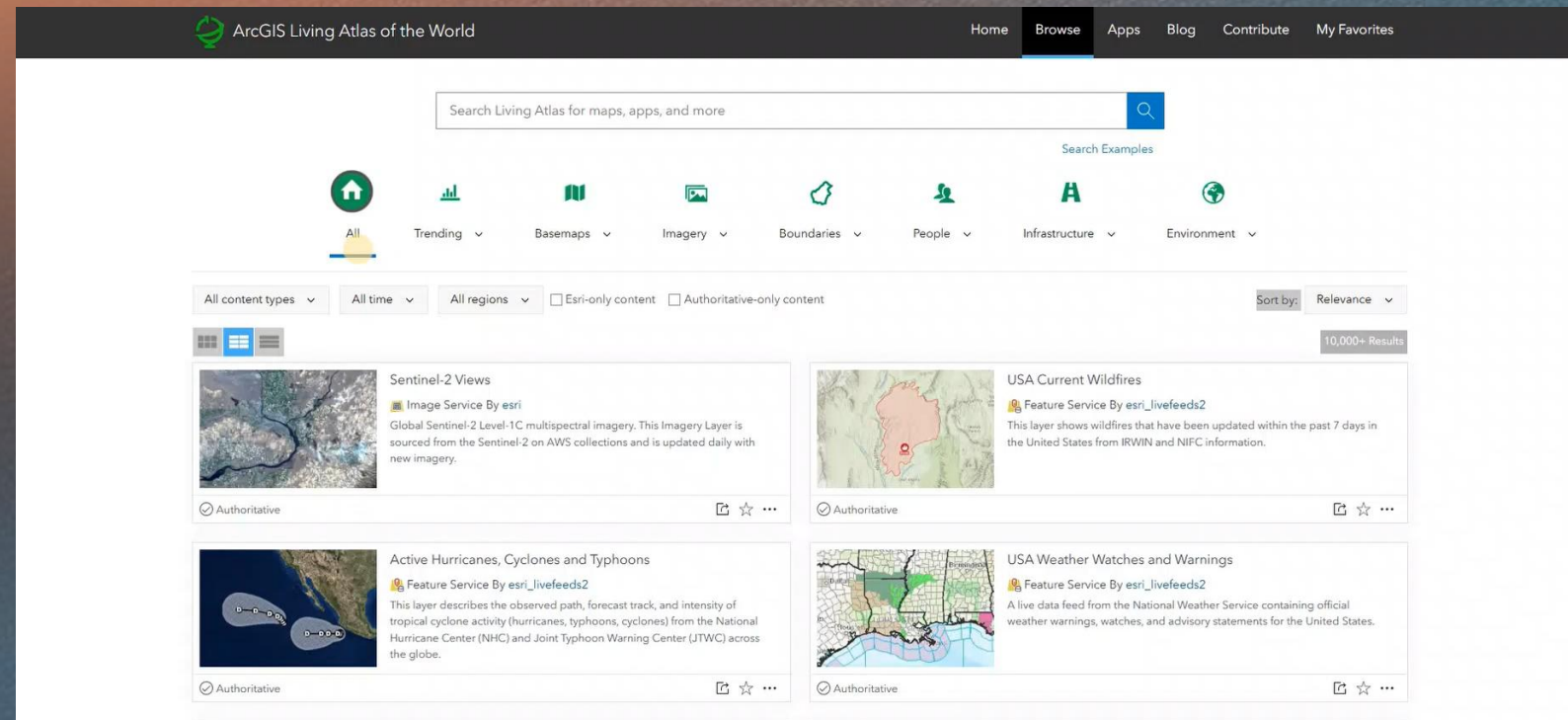
FMV un GeoMI

GeoMI rīki un modeļi

MI vadīta ģeotelpisko datu apstrāde un analītika

Ieguvumi:

- Datu kvalitātes un precizitāte uzlabošana
- Paātrināta situācijas izpratne
- Lēmumu pieņemšanas procesu uzlabošana.



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ArcGIS MI Asistenti

1. Saprot Jūsu nodomums

Tiek izmantots LLM

2. Iegūst zināšanas

No jūsu datiem un uzticamiem avotiem

3. Sadarbojas ar Jums

Jūs pieņemat lēmumus

4. Piedāvāt darbības

Atbilstoši Jūsu mērķim

5. Veic darbības

Ja Jūs to vēlaties



- Pielāgots Jūsu datiem, rīkiem un pakalpojumiem ArcGIS platformā.
- Tiek izmantoti aizsardzības mehānismi, kas nodrošina privātumu, datu aizsardzību un objektivitāti

MI asistenti– papildu funkcionalitāte!

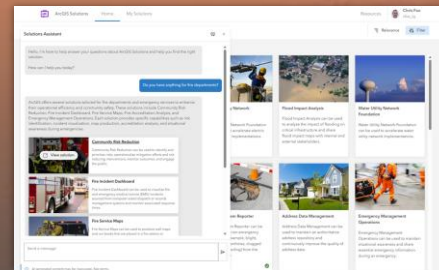
ArcGIS MI Asistenti

- Pro
- Map Viewer
- StoryMaps
- Hub
- Business Analyst
- Instant Apps
- Survey123
- Field Maps
- Microsoft Teams
- Notebooks
- ArcGIS Solutions
- . . .

Arcade (kodu izveide)



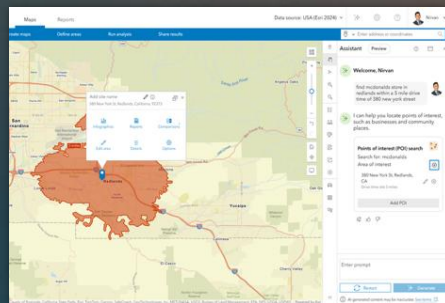
Solutions (izpēte un izveide)



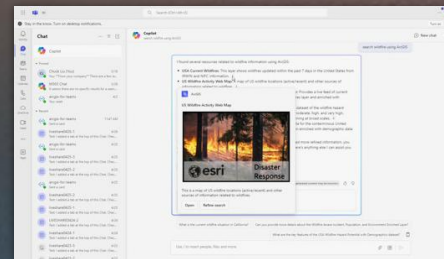
Documentation (visi produkti)



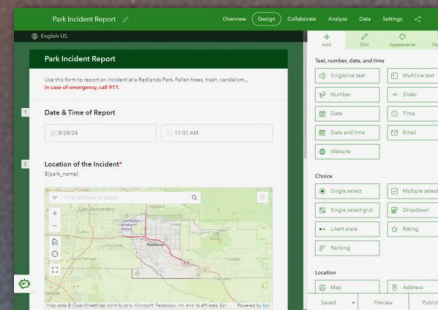
Business Analyst (Analīze un kartēšana)



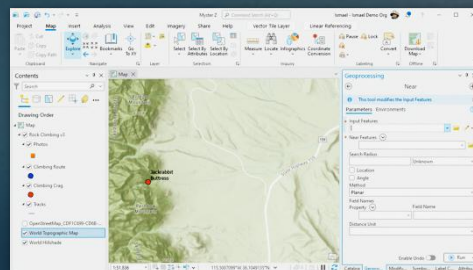
ArcGIS (Copilot integrācija)



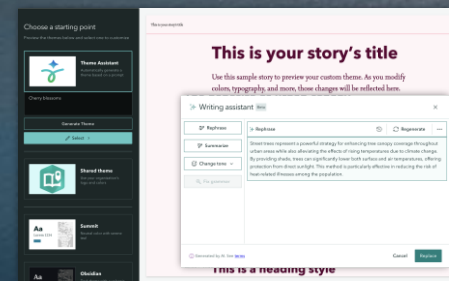
Survey123 (Aptauju izveide)



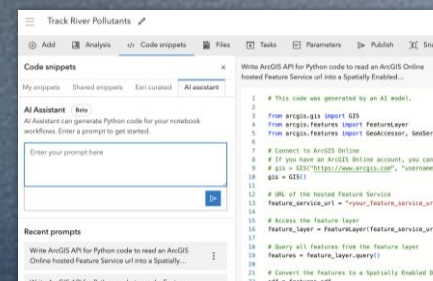
Pro (produktivitāte)



StoryMaps (Izveide)



Notebooks (Kodu izveide)



. . . Asistenti palīdz lietotājiem kļūt produktīvākiem

ArcGIS MI asistenti ArcGIS Online

- Jūsu organizācijas ArcGIS Online kontā jāiespējo MI asistentu izmantošana.
- Iespējams pielāgot lietošanu arī konkrētām lietotāju lomām.

The screenshot shows the ArcGIS Online interface for an organization named 'Ismael Geospatial AI Demo Org'. The navigation bar includes Home, Gallery, Map, Scene, Notebooks, Groups, Content, Organization, and a search icon. The user profile 'Ismael Chivite' is visible in the top right. The main content area is divided into several sections:

- Organization Overview:** Includes a notification about a new credit dashboard, a 'Create activity report' button, and details such as Subscription ID (8774996391), Feature Data Store (Standard, 1% storage used), Regional data hosting (United States), and Services health dashboard (All systems operational).
- Credits:** Shows 'Total remaining credits' as 995,932.60, 'Last 30 days' as 719.14, and 'Last 24 hours' as 21.81. A line chart below tracks 'Storage', 'Analytics', and 'Subscriber content' usage over the last 30 days, ending on Mar 2, 2026.
- Members:** Includes buttons for 'Invite members' and 'Manage members'.
- Add-on licenses:** Includes a button for 'Manage add-on licenses'.

ArcGIS MI asistents ArcGIS Pro(beta)

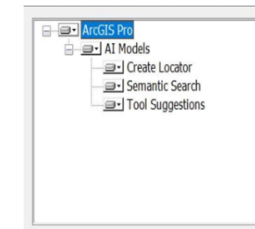
- ArcGIS Pro dokumentācijas izpēte un atbildes uz jautājumiem
- Izveido Query Layer SQL izteiksmes
- Izpilda darbības
- ArcPy un Arcade kodu izveide

How to Get Started

If you've read up to this point, you can tell that so much of this development is dependent on our ArcGIS Pro users joining the EAC and signing up for the ArcGIS Pro assistant (beta). If you aren't familiar with the EAC, it's how you gain early access to innovative features of ArcGIS Pro like the ArcGIS Pro assistant. And by participating, testing new capabilities, and providing feedback, you are directly shaping the ongoing enhancements and functionality of ArcGIS Pro.

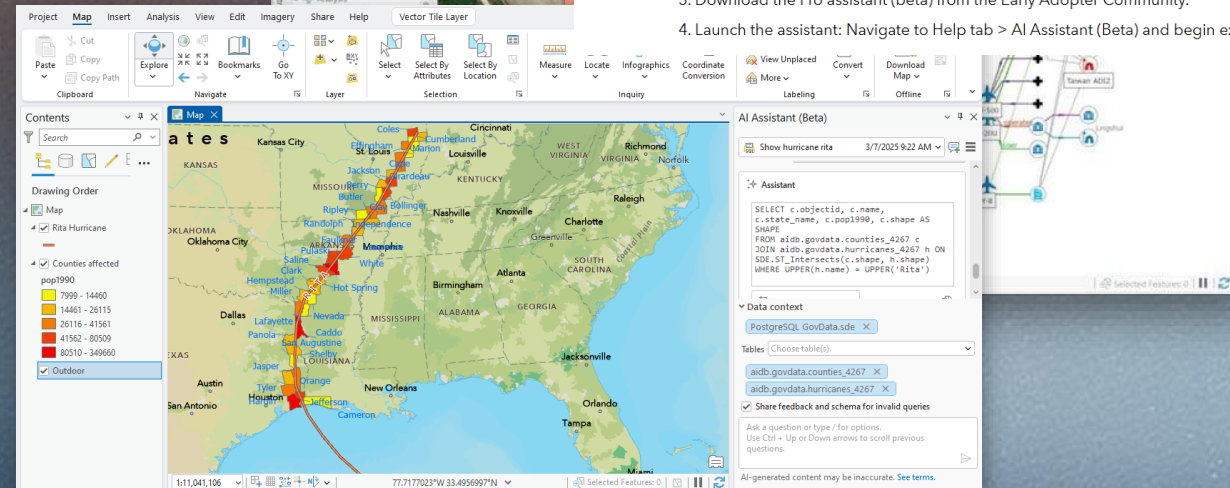
To participate in the ArcGIS Pro assistant (beta):

1. Apply for Access: [Fill out the survey](#) to request to join.
2. Once accepted, install ArcGIS Pro 3.6 with Semantic Search and Tool Suggestions enabled.



3. Download the Pro assistant (beta) from the Early Adopter Community.

4. Launch the assistant: Navigate to Help tab > AI Assistant (Beta) and begin exploring.



<https://www.esri.com/arcgis-blog/products/arcgis-pro/announcements/join-the-arcgis-pro-assistant-3-6-beta-help-shape-the-future-of-desktop-gis>

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MI Aģenti

LIETOTNES

Esri lietotnes

MI asistenti

Jūsu lietotnes

Data Explorer

ExB

Maps SDKs

AĢENTI

Esri aģenti

Pamata ģeotelpiskā informācija

Jūsu aģenti

Izveide

SDK

SERVISI

Esri servisi

Atrašanās vietas servisi

Jūsu servisi



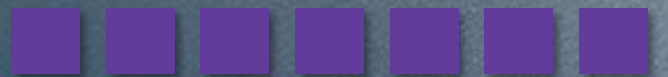
DATI

Esri dati

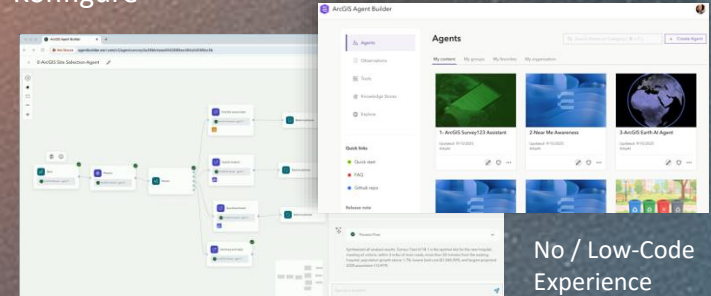
Living Atlas



Jūsu dati



Konfigurē



No / Low-Code Experience

Izstrādā

```
from arcgis.ai.agents import Agent
my_agent = Agent(
    model="gpt-5.2",
    instructions=system_prompt,
    knowledge=[...],
    functions=[...]
)
my_agent("Do something")
```

MI | Privātuma politika un drošība

The screenshot shows the ArcGIS Trust Center website. The navigation bar includes 'Overview', 'Security', 'Privacy', 'Trusted AI', 'Compliance', 'Documents', and 'Launch Security Adviser'. The 'Trusted AI' section is active. The main content area is titled 'Trusted AI in ArcGIS' and includes a sidebar with 'Overview', 'Trusted AI in ArcGIS', 'Transparency card structure', 'Transparency cards', and 'Implementation best practices'. The main text discusses the importance of trust in AI development and deployment, mentioning 'Geo AI and Assistants' and 'Generative AI'.

<https://trust.arcgis.com/en/trusted-ai/trusted-ai.htm>



AI Transparency Cards for ArcGIS

AI Transparency Card Structure

Generative AI features are not yet in production release in Esri products; however, we are including transparency cards for AI features in the beta stage for early awareness and transparency for our customers to make responsible AI decisions with our products. We welcome your feedback as we expand our AI Transparency card coverage across our product features over time.

Each section of the model card contains a description field and response. To provide clarity for sections that may have specific options available across the transparency cards, they are summarized below:

Section	Description
Product Name	Example: <i>ArcGIS Online, Business Analyst, ...</i>
AI Feature Name	Example: <i>ArcGIS Business Analyst Assistant, ...</i>
Documentation*	Link to ArcGIS.com help documentation for the AI feature
Description*	Actions the AI feature is expected to perform within the product
AI Feature Deployment	Select One: SaaS, PaaS, COTS Self-contained, COTS External Service
Release Status	Select One: Beta, Production, Initial Release (<i>For SaaS: Month/Year; For COTS: version</i>)
Primary Intended Users	Example: Administrator, GIS Analyst, Public, ...
Out of Scope Uses*	Applications outside intended domain or data that deviates from training conditions
Key Function	Select One: - Automate: AI reduces repetitive tasks - Analyze: AI provides actionable insights into data - Augment: AI enhances creative exploration and problem-solving
Model Type*	Examples: generative, neural network, transformer, decision trees, etc.
Model Used	Examples: Azure OpenAI, GPT-4(x), Mistral 7B, T5, custom-trained, etc.
Model Deployment Type	Select One: - Cloud-based (e.g., hosted on a third-party cloud like Azure OpenAI), - Edge (e.g., operates on local devices close to the user), - Hybrid (e.g., partially in the cloud, partially on local devices), or - On-Premises (e.g., fully deployed within the customer's infrastructure).
Model License*	Select One: - Proprietary: Developed internally by Esri - Open Source: Developed by a third party and publicly available - Licensed: Licensed for use from a third party - Combination: Contains both internal and third-party components

relative to the usage of Artificial Intelligence, data sources, and the privacy of AI features within our products, such as feature extraction, and generative AI. This document outlines our Trusted AI strategy and these categories.

A limitation applicable across generative AI features is that the AI feature may be used for purposes not intended for use as AI. For more information on the AI Transparency Card structure to be used for AI features, see "Other Esri AI Usage" in the AI Transparency Card structure to be used for AI features.

Highlights

AI Transparency Cards), the following highlights are included in our products:

AI products are available to opt-in to utilize generative features. The use of AI Assistants will be limited to the following:

to protect your data and privacy.

the creative consequences of AI.

assess AI output to ensure accuracy and reliability.

<https://trust.arcgis.com/en/trusted-ai/ai-transparency-cards.htm>

MI | Privātuma politika un drošība

The screenshot displays the ArcGIS Trust Center website. At the top, there is a navigation bar with the following items: ArcGIS Trust Center, Overview, Security, Privacy, **Trusted AI** (highlighted), Compliance, Documents, and a blue button labeled 'Launch Security Adviser'. Below the navigation bar is a search bar with the text 'Search ArcGIS Trust Center' and a magnifying glass icon. The main content area is titled 'Trusted AI / Overview'. On the left, there is a sidebar menu with the following items: Overview (selected), Trusted AI in ArcGIS, Transparency card structure, Transparency cards, and Implementation best practices. The main content area features a large heading 'Implementation best practices' followed by a paragraph: 'Leveraging AI within your organization using Esri's ArcGIS can significantly improve decision-making, operational efficiency, and customer engagement. However, a well-structured approach is critical to ensure the technology delivers value while maintaining data security, regulatory compliance, and operational readiness.' Below this is another heading 'Opportunities and challenges' followed by a paragraph: 'Artificial Intelligence has the potential to transform organizations by driving innovation, enhancing decision-making, and streamlining operations. However, it also presents unique challenges that must be addressed for successful implementation.' There are three sub-sections: **Enhanced decision-making vs data quality:** ArcGIS AI tools can analyze complex geospatial data to generate actionable insights. However, accuracy depends on high-quality, well-classified data. Organizations must leverage ArcGIS data management tools to ensure data integrity and diversity. **Operational efficiency vs. integration complexity:** Automation via AI can boost productivity in ArcGIS workflows. However, integrating these capabilities with existing systems (using APIs, containerized deployments, or sandbox environments) may require additional technical resources and planning. **Improved customer experiences vs. ethical concerns:** AI-driven insights can personalize services and improve decision-making. Nonetheless, transparency tools such as AI Transparency Cards must be used to monitor and mitigate potential biases, ensuring ethical and fair outcomes. At the bottom, there is a sub-section: **Innovation and scalability vs. costs and workforce readiness:** Esri's integrated AI solutions enable... On the right side of the main content area, there is a box titled 'In this topic' with a yellow circle icon, containing a list of links: Opportunities and challenges, Preparing your organization, Data management, Optimizing AI systems, Sustaining AI success, and Responsible AI practices. In the bottom right corner, there is a circular icon with a plus sign and a star.

https://trust.arcgis.com/en/trusted-ai/ai-implementation-guidance.htm#ESRI_SECTION1_8248614741C84234A5261A6261D5EB99

1. Jautājums

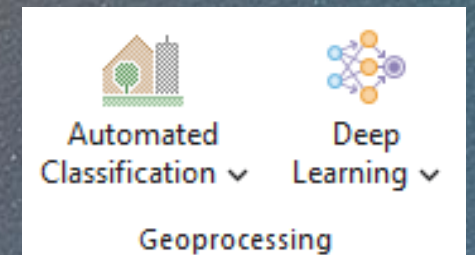
Interesē MI pielietošana tabulu lauku ierakstu automātiskai atpazīšanai gadījumos, kad ierakstā ir pareizrakstības kļūdas, kā, piemēram, adrešu pieraksti. Tas ir svarīgi gadījumos, kad jāģeokodē ieraksti vai jāpievieno tabulas vai jāveido relācijas. Bieži vien saņemtajās excel tabulās adrešu pieraksti vienai un tai pašai adresei (objektam) ir visdažādākie, kas apgrūtina tiešu piesaisti starp avota slāni un gala slāni.

Iesakām veikt ģeokodēšanu (*geocoding*), izmantojot Latvijas ArcGIS ģeolokatoru. Latvijas ArcGIS ģeolokators sagatavots izmantojot Valsts adrešu reģistra atvērtos datus.

2. Jautājums

Interesē MI pielietošana punktu mākoņa punktu klasificēšanai.





GeoAI un Deep Learning iespējas - *Classify Using Deep Learning Model*. Ir pieejami jau lietošanai gatavi modeļi, kā arī ir iespējams sagatavot savus *deep learning* modeļus.



Prepare Point Cloud Training Data

Evaluate Classification Model

Classify Using Deep Learning Model

-  Tree Point Classification
-  Tree Point Classification - New Zealand
-  Building Point Classification
-  Building Point Classification - New Zealand

[Classify Point Cloud Using Trained Model](#)

Mājasdarbs

IEVADS MI ARCGIS PLATFORMĀ

Līmenis: Vidējs

Introduction to AI in ArcGIS

Uzzini par:

- GeoAI iespējām un datu apstrādes darba plūsmām
- Esri Trusted AI



METADATU PAMATI MI ATBALSTAM

Līmenis: Iesācējiem

Essentials for AI-Ready GIS

Uzzini, kā metadati var ietekmēt MI analīzes rezultātus.



Nākamie zvani un pasākumi

ESRI TEHNISKAIS VEBINĀRS

29. aprīlī 14:00 – 15:30

Lauka lietotnes ArcGIS
platformā
[Uzzināt vairāk](#)

LATVIJAS ESRI LIETOTĀJU KONFERENCE

20. - 21. maijā

Reģistrācija atvērta
[Uzzināt vairāk](#)

Noderīgas saites

ArcGIS aktualitātes, Envirotech
ikmēneša ziņas

- [Trusted AI in ArcGIS](#) dokumentācija
- [Geospatial AI platform](#) dokumentācija
- [Configure AI assistants](#) dokumentācija
- Esri Bloga raksts: [What's New in AI Assistants \(October 2025\)](#)
- Esri Bloga raksts: [What's New in AI Assistants \(February 2026\)](#)
- Esri Bloga raksts: [Prompt writing for AI assistants](#)
- Esri Bloga raksts: [Join the ArcGIS Pro assistant 3.6 beta: Help Shape the](#)
- [Future of Desktop GIS](#)
- Esri Bloga raksts: [Introducing the ArcGIS Hub assistant \(beta\)](#)
- Esri Bloga raksts: [Introducing the ArcGIS documentation assistant \(beta\)](#)
- Esri Bloga raksts: [Meet the Next Generation of the ArcGIS Solutions App: Powered by AI](#)
- Esri Bloga raksts: [Introducing the ArcGIS Arcade assistant \(beta\)](#)
- Esri bloga raksts: [Turning Imagery into Action with GeoAI](#)

Paldies Jums par dalību!

