

# Opportunities & Risks of Harnessing the Power of AI



Asociatia Techsoup

28.03.2024

# Nice to meet you.



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RoundTable Technology is a strategic IT services partner who works with nonprofits to help them leverage technology to fulfill their mission.



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We understand what it's like working with limited resources, budget, and people. We also have a passion for nonprofits. That's why we only hire personnel that are themselves driven by serving those who serve.

We work directly with over 200 nonprofit organizations and have served thousands in service of our mission of ensuring nonprofits have the technology they need to effect change.



Channel Futures  
Leading Channel Partners to Success

MSP 501  
WINNER



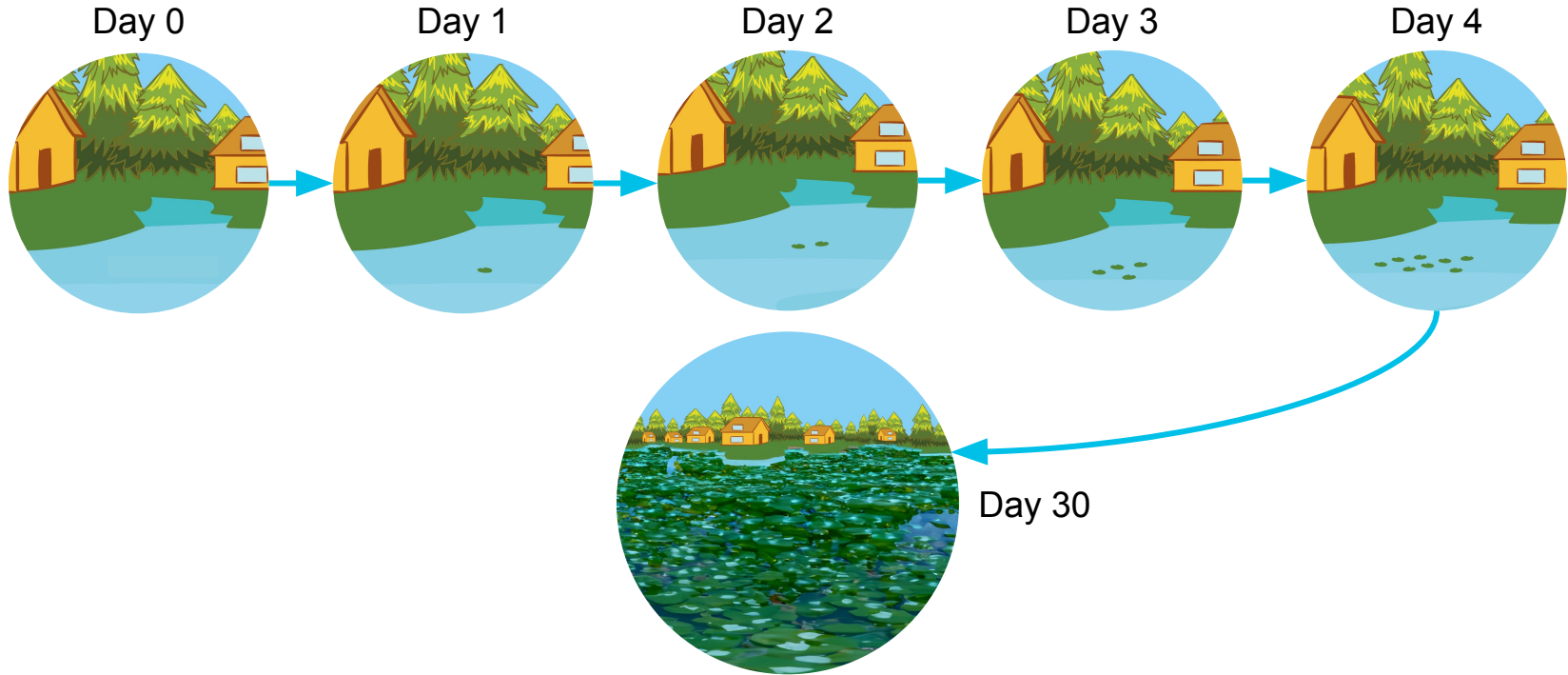
# What is your relationship with AI?



# What can lily pads teach us about AI?



# Exponential growth path for AI





**On what day is the lake  
half-full?**

Day 29

**What about  $>1\%$   
full?**

Day 24

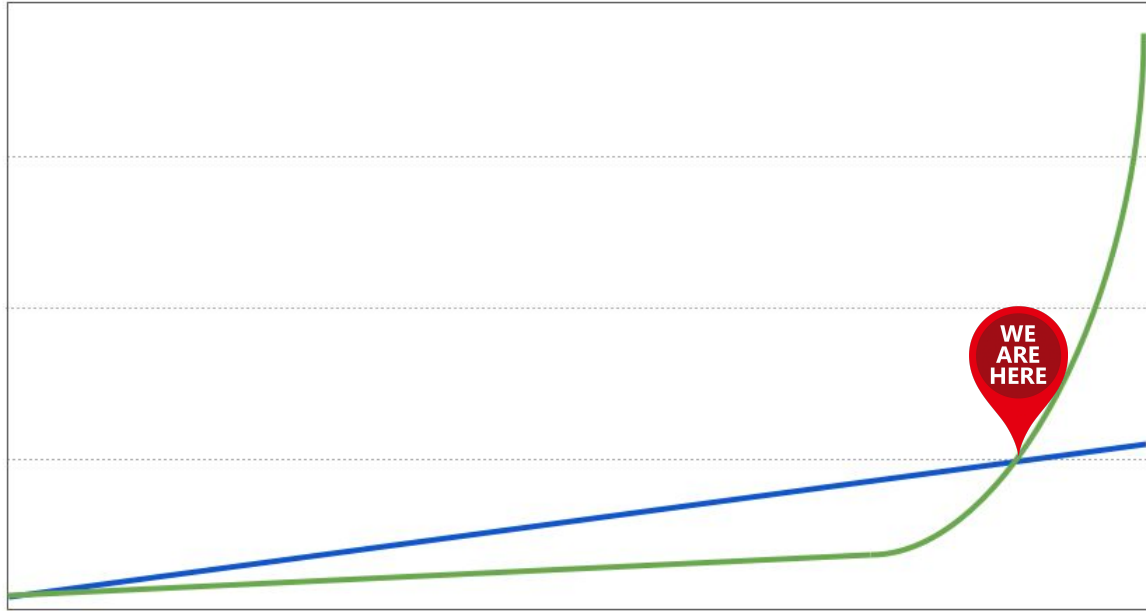




Let us know  
in chat!

**In terms of AI development,  
what day is today?**

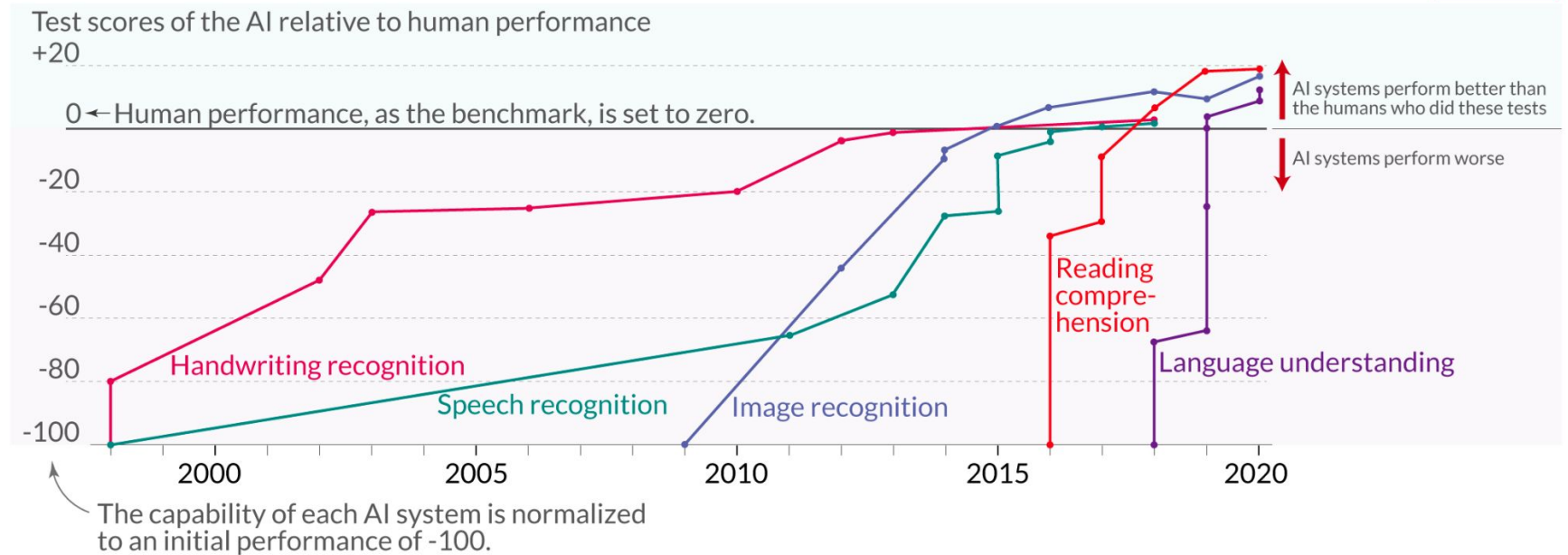
# Exponential Growth Path for AI



# Why so much growth now?

Language and image recognition capabilities of AI systems have improved rapidly

Our World  
in Data




# Leaps of improvement!



AI-generated “Frog” March 2022-June 2023

“Frog” with Bing DALL-E3 - October 2023

# Current Publicly Available LLMs

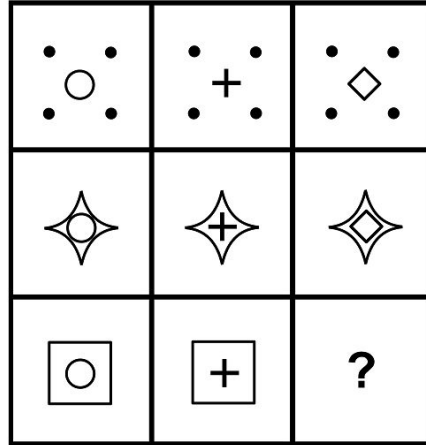


<u>AI</u>	<u>IQ Score</u>	<u>Questions right (out of 35 per test)</u>	<u>Chance it beats random guessing</u>
<b>Claude-3</b>	<b>101</b>	18.5	99.999999%+
<b>ChatGPT-4</b>	<b>85</b>	13	99.9986%
<b>Claude-2</b>	<b>82</b>	12	99.9911%
<b>Bing Copilot</b>	<b>79</b>	11	99.9314%
<b>Gemini (normal)</b>	<b>77.5</b>	10.5	99.8212%
<b>Gemini Advanced</b>	<b>76</b>	10	99.5894%
<b>Grok</b>	<b>68.5</b>	7.5	87.9402%
<b>Llama-2 (Meta)</b>	<b>67</b>	7	80.3278%
<b>Claude-1</b>	<b>64</b>	6	56.3155%
<b>ChatGPT-3.5</b>	<b>64</b>	6	56.3155%
<b>Grok Fun</b>	<b>64</b>	6	56.3155%
<b>Random Guesser</b>	<b>63.5</b>	5.8333	50%

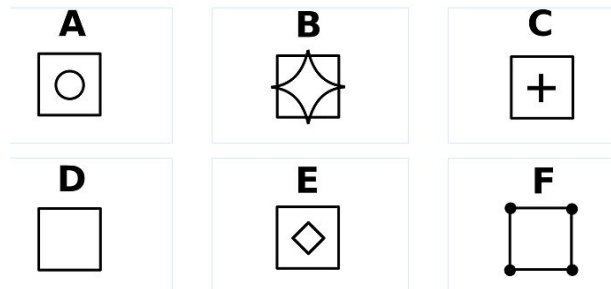
Tests given in March 2024. The IQ test was Mensa Norway, with all questions verbalized as if one were giving the test to a blind person. The right-hand column shows the % of random-guesser simulations that the AI did better than, with ties ignored, over 70 questions (two test administrations.)

# Audience IQ Test

Exercise 2



Select answer



# Not good at everything yet



@ChatGPT - Please make me a "Where's Waldo" style image in Bucharest



Here's your "Where's Waldo" style image set in Bucharest. Good luck finding Waldo among the bustling scenes of the city's iconic landmarks!

# How about a nice infographic?

@ChatGPT - Please review this annual report and make a compelling infographic of the most critical information.





# Faster than Moore's Law

## Decoding the Exponential Growth of AI

Let's talk about Moore's Law, a principle that feels like the backbone of the tech evolution narrative. Back in the 1960s, Gordon Moore, a co-founder of Intel, made a bold prediction: the number of transistors on a microchip would double about every two years, while the cost of computers would halve. This was a forecast that has remarkably held true for decades, acting as a beacon for the tech industry's progress. Moore's Law essentially told us that our devices would get faster, smarter, and cheaper at an astonishingly predictable pace. Now, enter the world of artificial intelligence, where the pace set by Moore's Law seems almost leisurely in comparison.

AI is on a sprint, with its computational power doubling not every two years, but approximately every six months.

Source: [Moore's Law Accelerated: The Exponential Growth of AI](#)

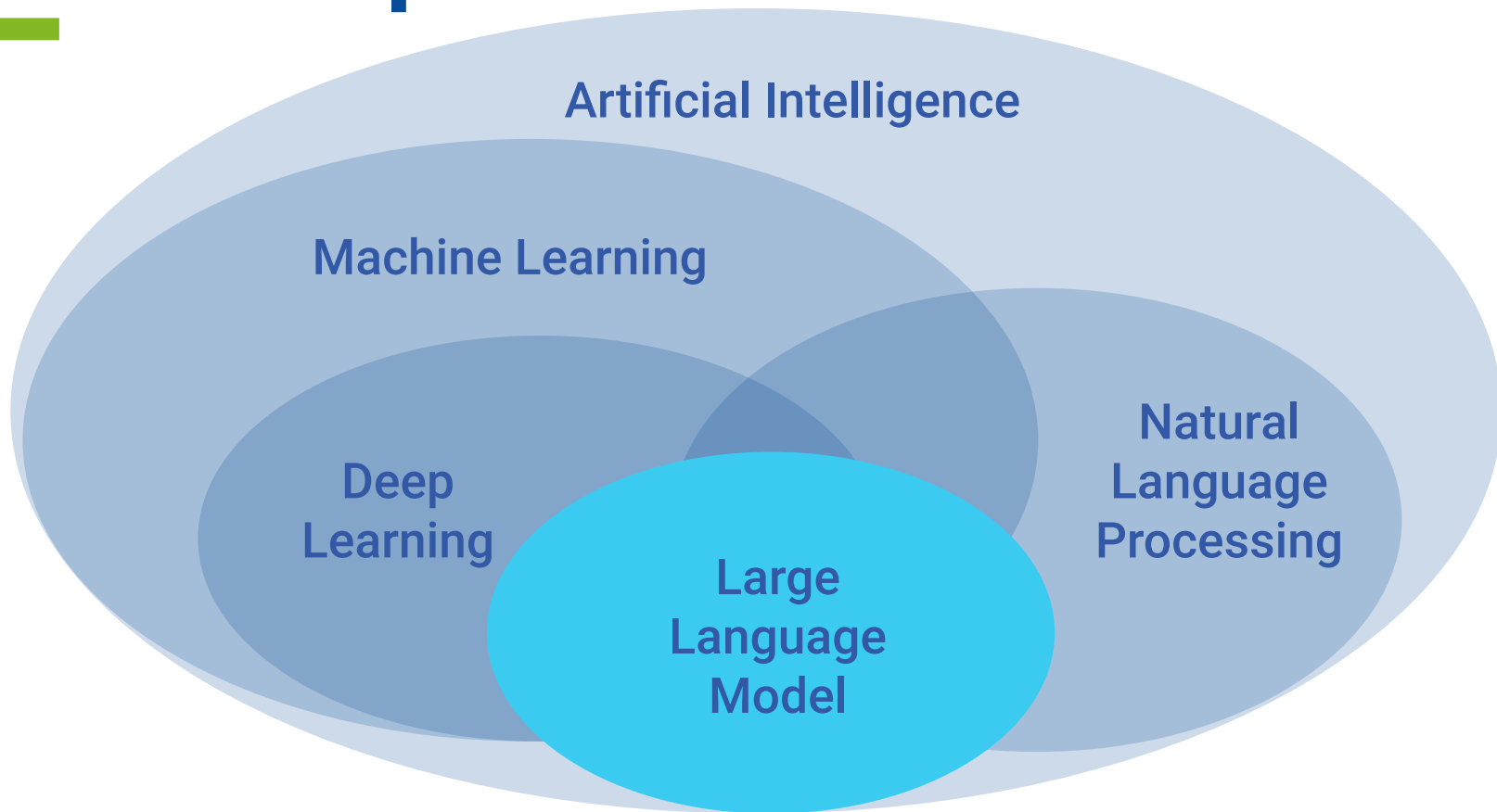


# When we say, “AI,” what are we talking about?



# AI Landscape

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# What a LLM (Large Language Model) is doing

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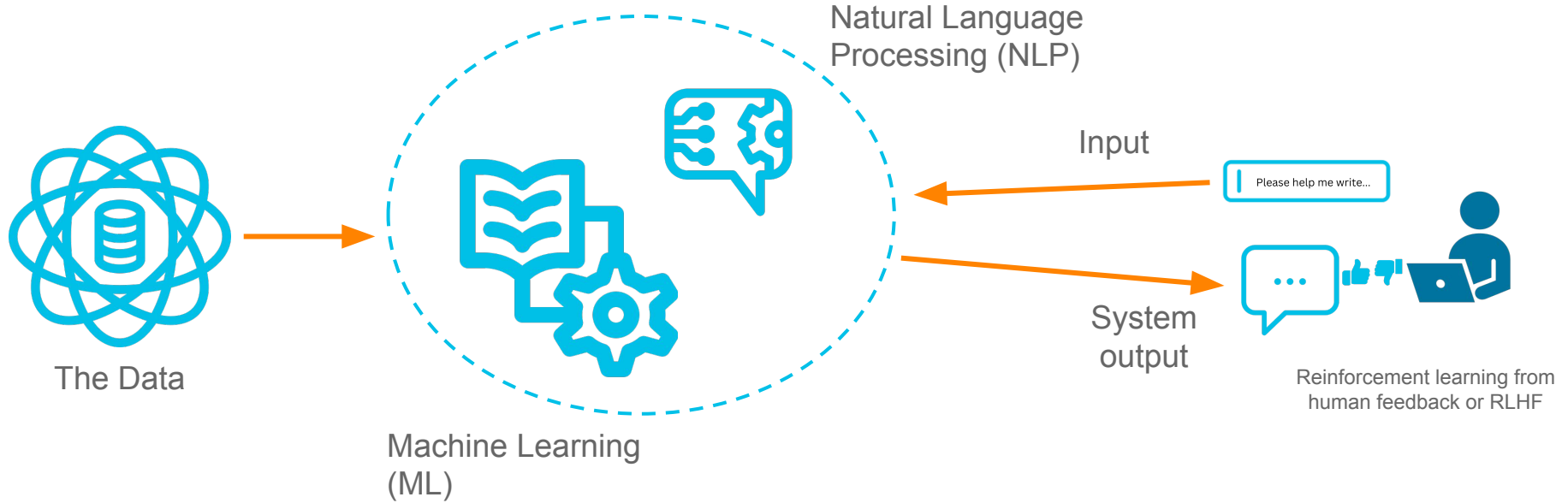


Special thanks to [Tanmay Bakshi](#) for creating this message for us to show to you: Nonprofits!

# ~~Opportunities & Risks of Harnessing the Power of AI~~

**Opportunities & Risks of Harnessing the  
Power of Probabilistic Statistical Outputs**

# Fundamental Components of an LLM



# Generative Systems - Text

## Free Products



**ChatGPT**

GPT 3.5



**CLAUDE**

Accepts uploads  
*\*Not yet in Romania*



**Copilot**

GPT 4



**Gemini**

Google

Search-based  
web based

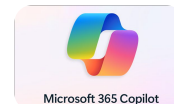
AI Writing Interns

## Paid (\$20-30/month)



OpenAI  
**ChatGPT 4.0**

Data Analysis, GPT,  
Team Workspace



Microsoft 365  
Copilot



Google Gemini  
Advanced

# Your AI Writing Intern

Ask about things you are familiar with and your buddy can help you with:

- ❑ First drafts and “blank page” syndrome
- ❑ Summarizing long articles
- ❑ Editing copy, shortening and lengthening text
- ❑ Creating SEO-friendly copy
- ❑ Writing Excel formulas, Python code



Made with DALL-E

# Prompt Engineering

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Give it a role



Describe desired format



Describe the task



Provide an example



Provide context



Ask it questions



Experiment, experiment, experiment

# Generative Image



Free



Copilot with  
DALL-E 3



Google  
Gemini

Free-ish (Paid Upgrade Plans)



Stable  
Diffusion

Paid Plans



DALL-E with  
GPT Plus



Midjourney

# Putting the “I” in Artificial Intelligence



*“a watercolor image of a frog reviewing a data dashboard on a computer screen in the style of an 1800’s impressionist painter”*

Made with Bing Image Creator/DALL-E

# Your multi-faceted analyst AI buddy

**ChatGPT**  
**Advanced Data Analysis**



# AI for expanding reach

## Translation Options



### Website Translation

Low-cost translation services for website handle content changes instantly



### Multi-lingual Meetings

Attendees translate meetings into their language of choice



### Video Translation

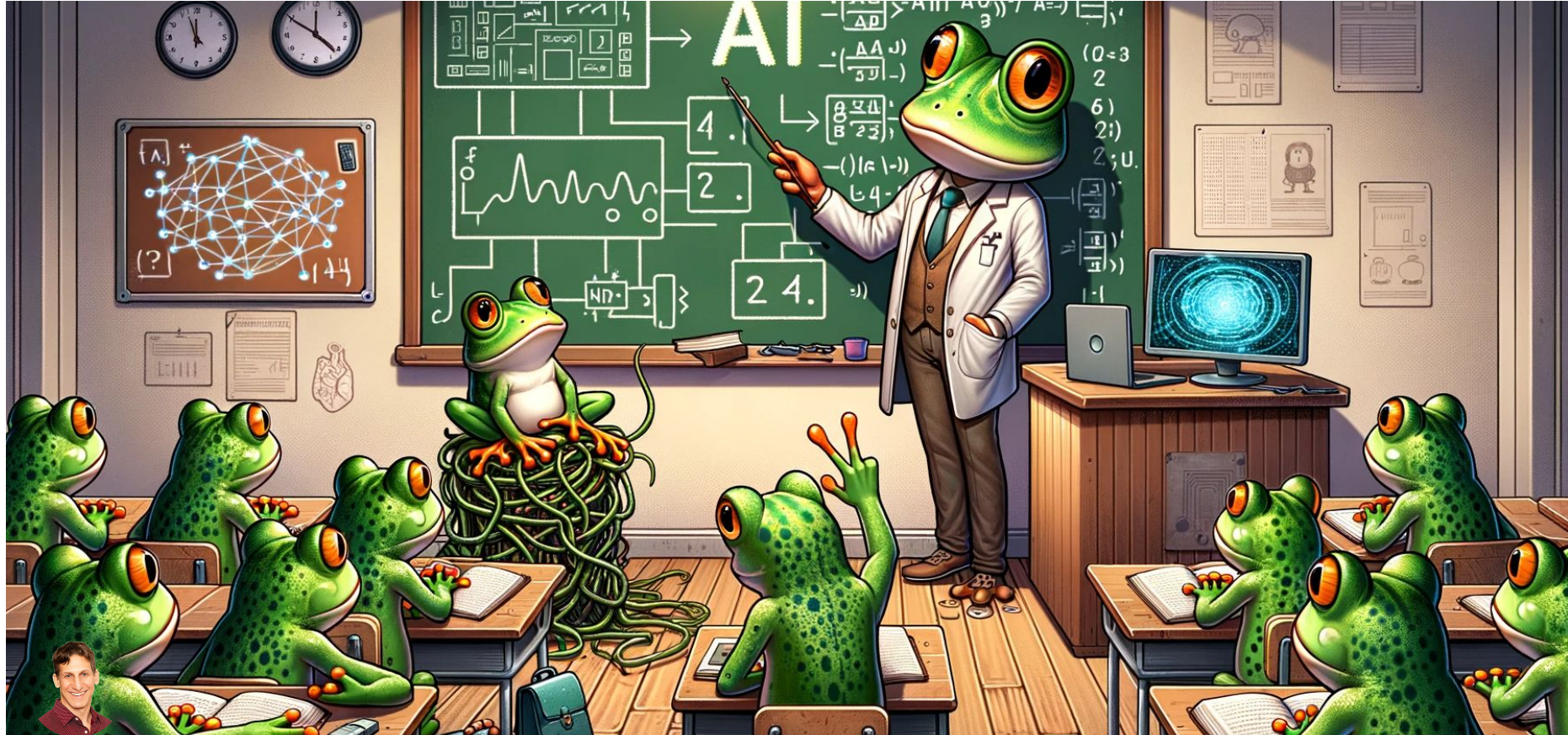
Speakers can become multilingual

# Ce face un LLM (Large Language Model)



Mulțumiri speciale lui [Tanmay Bakshi](#) pentru crearea acestui mesaj pe care să-l arătăm:  
Organizații nonprofit!

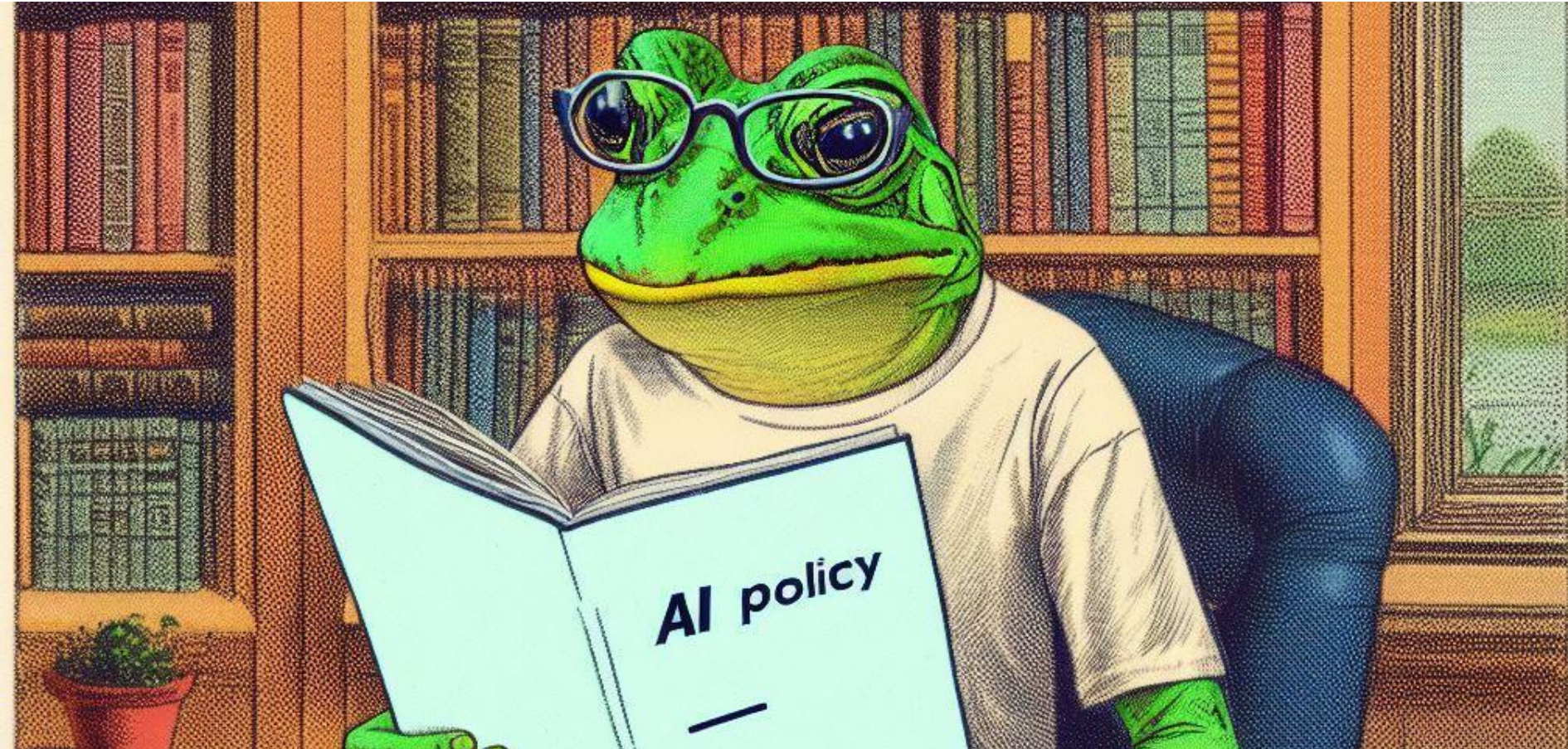
# AI Readiness Culture



**Do you think anyone at your organization is using AI for work-related tasks?**



# Creating an AI Policy for Your Organization

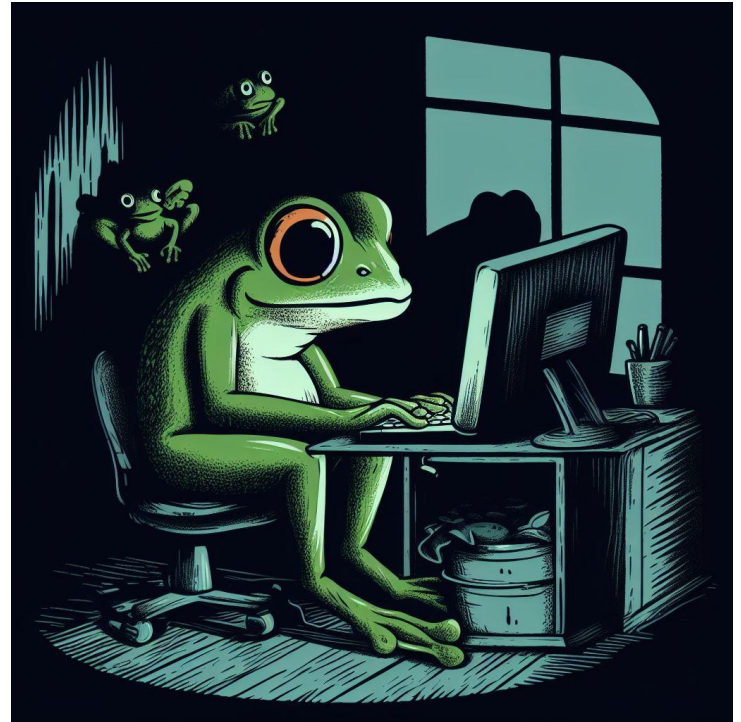


# AI Policy and Strategy

**Assumption:** People in your organization are using AI now

**Establishing an organizational AI strategy and policy can:**

- ✓ Provide guidelines for the use of AI
- ✓ Align the use of AI with organizational goals
- ✓ Reduce risks associated with AI use



# AI Acceptable Use Policy

## Șablon pentru Politică de Utilizare Acceptabilă a Inteligenței Artificiale

### 1. Scop

### 2. Domeniu de aplicare

### 3. Politică

- 3.1. Utilizarea adecvată a sistemelor AI
- 3.2. Identificarea și atenuarea părtinirii în rezultatele generate de AI
- 3.3. Asigurarea acurateții și adecvării rezultatelor generate de AI
- 3.4. Protecția datelor și confidențialitatea
- 3.5. Transparență și responsabilitate
- 3.6. Formare și conștientizare
- 3.7. Utilizarea intenționată necorespunzătoare
- 3.8. Utilizarea neintenționată necorespunzătoare
- 3.9. Raportarea abuzurilor

### 4. Aplicare

### 5. Revizuire și actualizări

#### 5.1. Istoricul reviziilor

#### **1. Scop**

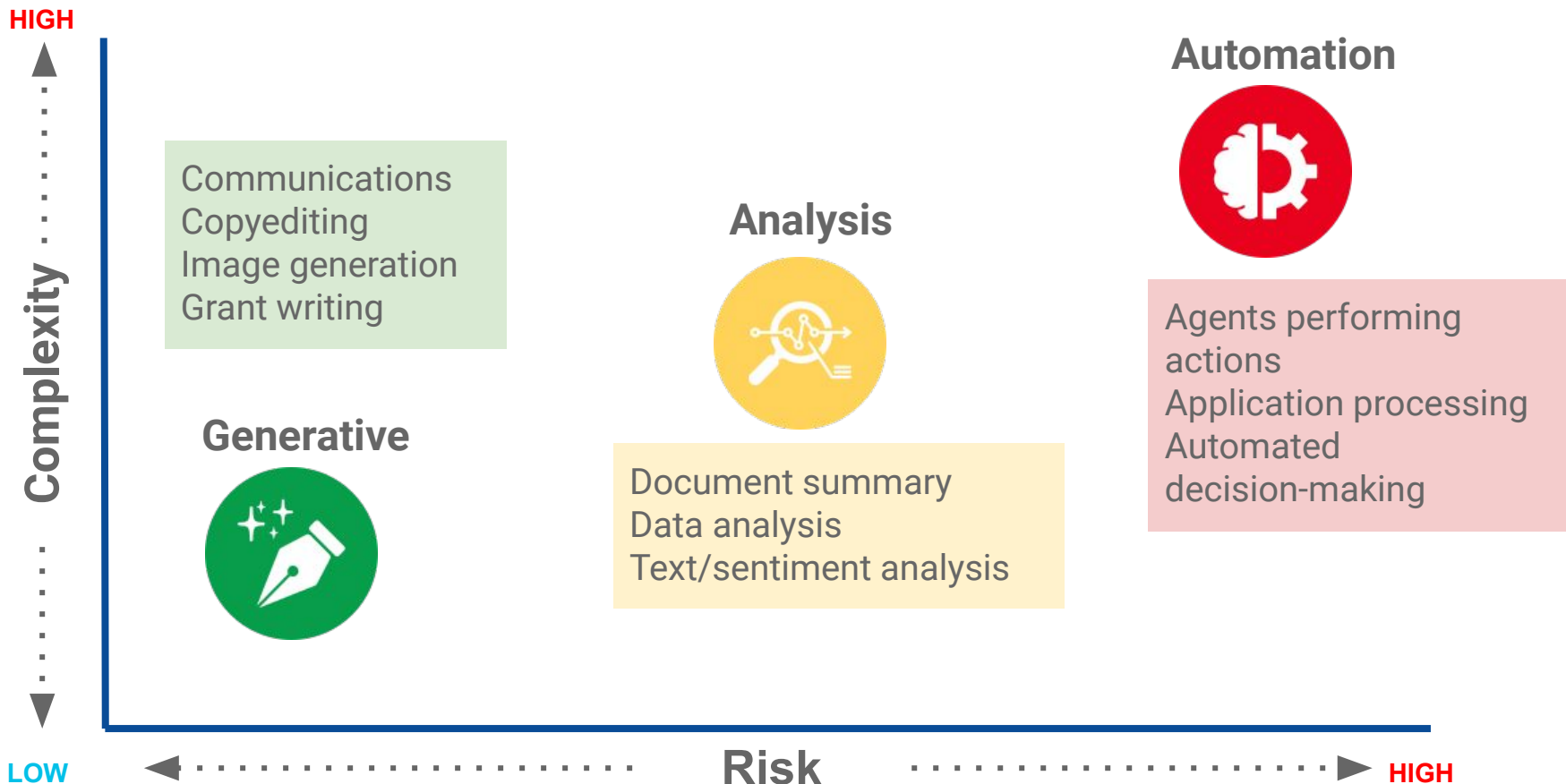
Scopul acestei Politici de Utilizare a Inteligenței Artificiale (AI) este de a stabili linia directoare și cele mai bune practici pentru utilizarea responsabilă a sistemelor de AI în cadrul [Numele Organizației Nonprofit]. Politică își propune să promoveze utilizarea eficientă și etică a instrumentelor AI, minimizând în același timp riscul de utilizare intenționată sau neintenționată incorectă care ar putea rezulta în prejudiciu pentru indivizi, organizație sau misiunea noastră. Această politică încearcă, de asemenea, să abordeze potențialele prejudecăți, să asigure alinierea cu misiunea, valorile și obiectivele organizației și să garanteze acuratețea și adecvarea rezultatelor generate de AI.

#### **2. Domeniu de aplicare**

- ✓ Appropriate use of AI systems
- ✓ Identifying and mitigating bias in AI-generated outputs
- ✓ Ensuring accuracy and appropriateness of AI-generated outputs
- ✓ Data protection and privacy
- ✓ Transparency and accountability
- ✓ Intentional misuse
- ✓ Unintentional misuse
- ✓ Reporting misuse
- ✓ Enforcement

[Link to template](#)

# What are the *least complex* and *least risky* uses?



# Mitigating the Confabulation Risk

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Described as hallucination, confabulation or just plain making things up, it's now a concern for every nonprofit, business and student trying to get a generative AI system to compose documents and get work done.

**DO NOT rely on AI to answer questions where you don't know and can not verify.**

**Review, review, review.**



# Confabulation - aka Making Things Up



## National Eating Disorders Association phases out human helpline, pivots to chatbot

May 31, 2023 · 5:08 PM ET

By Kate Wells

FROM MICHIGAN RADIO




Abbie Harper worked for a helpline run by the National Eating Disorders Association (NEDA), which is now being phased out. Harper disagrees with the new plan to use an online chatbot to help users find information about eating disorders.

Andrew Tate



< 2 weeks later



## An eating disorders chatbot offered dieting advice, raising fears about AI in health

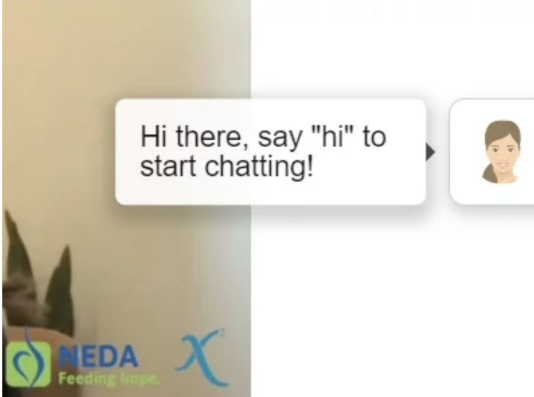
Updated June 9, 2023 · 6:59 AM ET

By Kate Wells

FROM MICHIGAN RADIO

4-Minute Listen

+ PLAYLIST



Tessa was a chatbot originally designed by researchers to help prevent eating disorders. The National Eating Disorders Association had hoped Tessa would be a resource for those seeking information, but the chatbot was taken down when artificial intelligence-related capabilities, added later on, caused the chatbot to provide weight loss advice.

Screengrab

# Întrebări de pus – Prejudecăți IA



**Prejudecata Datelor:** Datele noastre de antrenament reprezintă în mod corect populația pe care încercăm să o servim, sau accentuează excesiv anumite grupuri față de altele?



**Prejudecata Algoritmică:** Algoritmii pe care îi folosim cântăresc toți factorii relevanți în mod egal, sau pun un accent nejustificat pe anumiți factori, conducând potențial la rezultate distorsionate?



**Prejudecata de Confirmare:** Sistemul nostru IA analizează obiectiv toate datele disponibile, sau favorizează datele care confirmă convingeri sau ipoteze pre-existente?



**Prejudecata Interacțiunii:** Există prejudecăți în modul în care utilizatorii interacționează cu sistemul nostru IA care ar putea influența comportamentul sau acuratețea acestuia, cum ar fi favorizarea unui dialect sau grup de utilizatori față de altul?



**Prejudecata Latentă:** Există prejudecăți sociale sau structurale subiacente reprezentate în datele noastre de care ar trebui să fim conștienți și să le luăm în considerare în proiectarea și utilizarea sistemului nostru IA?

# Întrebări de pus – Explicabilitate și Transparență



**IA Opaquă:** Înțelegem cum ia decizii modelul nostru IA și putem explica acest proces în termeni simpli?



**Explicații Incomprehensibile:** Explicațiile furnizate de sistemul nostru IA sunt clare și ușor de înțeles pentru utilizatorii neexperți, sau trebuie să le simplificăm?



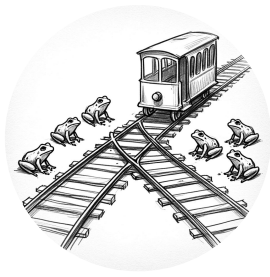
**Influența în Luarea Deciziilor:** Suntem clari în legătură cu rolul pe care sistemul nostru IA îl joacă în procesele de luare a deciziilor, și este această informație comunicată utilizatorilor sau părților interesate?



**Ratele de Eroare și Intervalele de Încredere:** Înțelegem ratele de eroare și intervalele de încredere ale modelului nostru IA, și putem explica acestea utilizatorilor în termeni ușor de înțeles?



**Actualizări și Modificări ale Modelului:** Suntem transparenți în legătură cu momentul și motivul pentru care actualizăm sau reantrenăm modelul nostru IA, și este această informație comunicată în mod clar utilizatorilor?



# An AI Trolley Problem:

**InnovateForGood**, a nonprofit that funds community-driven tech projects for social good.

- **AI Opportunity:** They have the option to implement an AI system to streamline the grant approval process, allowing for quicker decision-making.
- **Benefits:**
  - Implementing AI streamlines the grant approval process, cutting down the approval time by 70%, enabling more projects to be funded within the same timeframe.
  - More funded projects could lead to more/better community technological advancements
- **Risks:**
  - The AI system has shown a tendency to favor certain types of projects, potentially leading to a lack of diversity in funded projects.
  - Potential underrepresentation of certain community needs, perpetuating existing inequalities.

# Protecting Privacy



# Privacy and Regulation

**Could your employees' use of ChatGPT put you in breach of GDPR?**

## **ChatGPT: Italy says OpenAI's chatbot breaches data protection rules**

31 January 2024

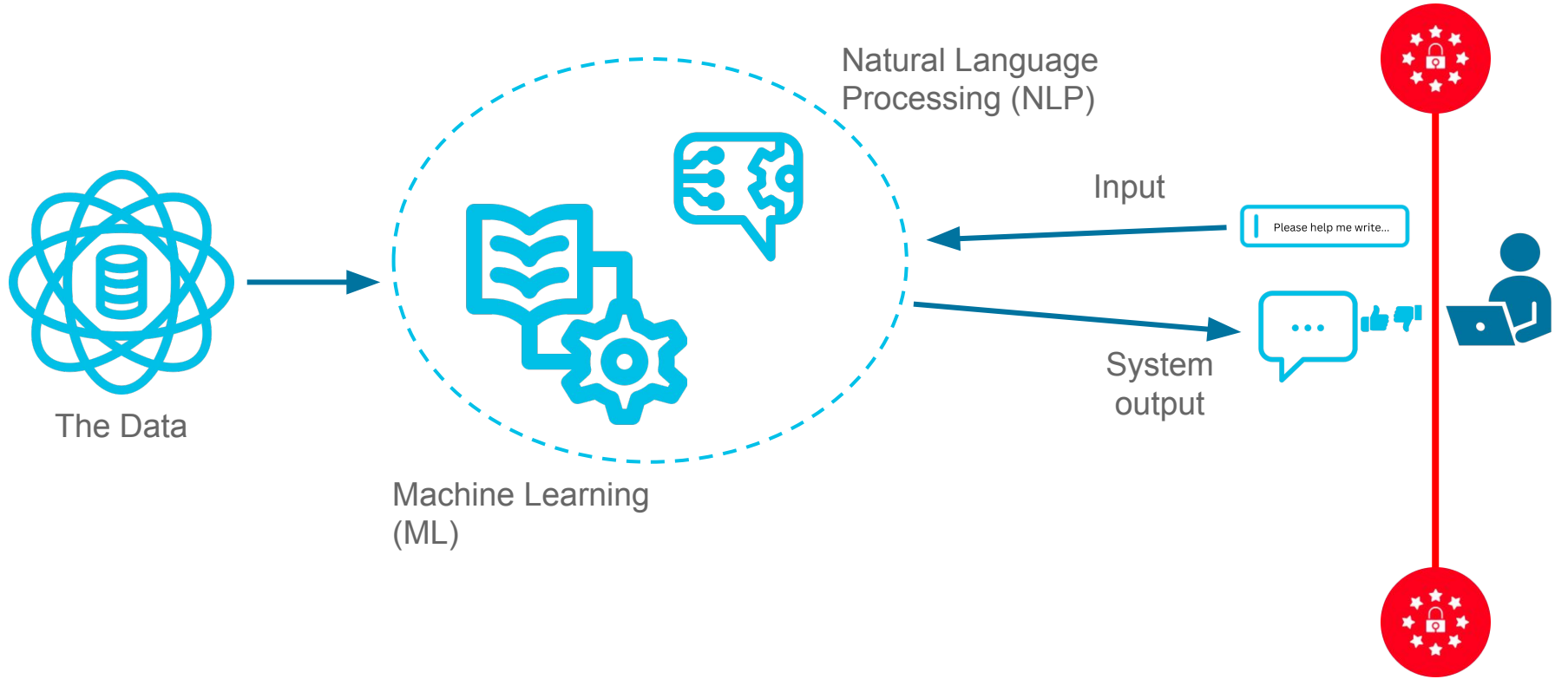
By Imran Rahman-Jones, BBC News

 Share

## **Artificial Intelligence Act: MEPs adopt landmark law**

Press Releases [PLENARY SESSION](#) [IMCO](#) [LIBE](#) 13-03-2024 - 12:25

# On Public or Free AI Tools, Privacy Ends in the Prompt





# Întrebări de pus – Confidențialitate



**Colectarea Datelor:** Suntem clari în privința datelor pe care le colectăm și am comunicat acest lucru persoanelor în cauză? Am obținut consimțământul informat de la toate persoanele a căror date le folosim?



**Stocarea, Securitatea și Păstrarea Datelor:** Avem măsuri de securitate solide pentru a proteja datele pe care le stocăm? Avem politici clare referitoare la cât timp păstrăm datele personale, când și cum vor fi șterse?



**Partajarea Datelor:** Ne-am asigurat că orice terți cu care partajăm datele urmează, de asemenea, practici stricte de confidențialitate a datelor?

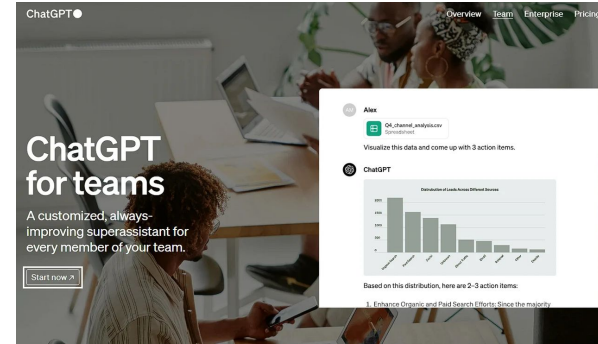
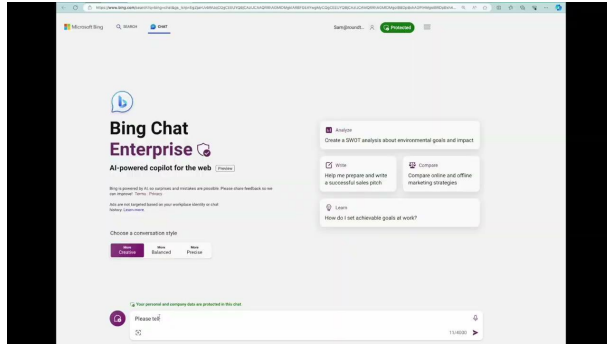


**De-anonimizare:** Luăm măsuri pentru a preveni potențiala de-anonimizare a datelor pe care le folosim?



**Supraveghere și Profilare:** Folosim IA într-un mod care respectă confidențialitatea individuală și nu duce la profilare invazivă sau supraveghere?

# Privacy Safety in Enterprise Systems



# Generative AI and Cybersecurity

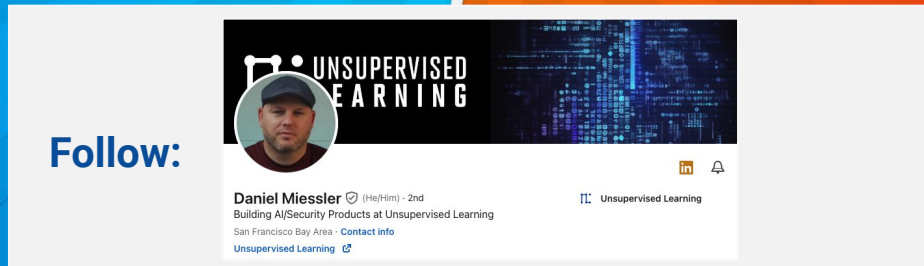


# Blue Team

“With AI, we can actually say your job is to watch...I'm going to hire 10 million of these things and their job is to watch logs and look for anomalies.”

# Red Team

“In the short term, this actually advantages red first, because red moves faster, and red can start very early.”

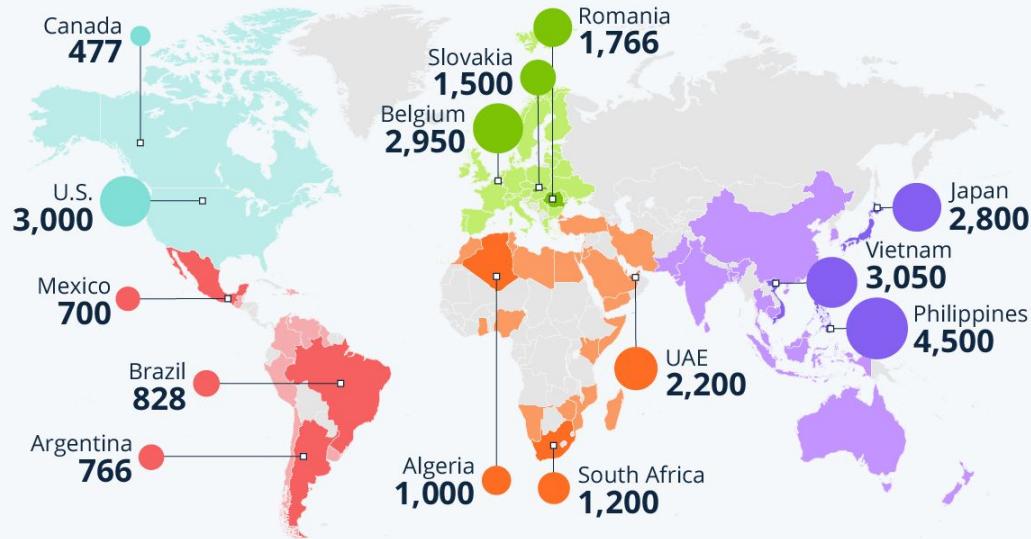


Source: [AI Cybersecurity Podcast: Breaking Down AI's Impact on Cybersecurity](#)

# The Explosive Growth of AI-Powered Fraud



Countries per region with biggest increases in deepfake-specific fraud cases from 2022 to 2023 (in %)\*



The report analyses +2M cases of identity fraud attempts from 224 countries/territories.

All data is aggregated and anonymized \* Regions according to source

Source: Sumsb Identity Fraud Report 2023

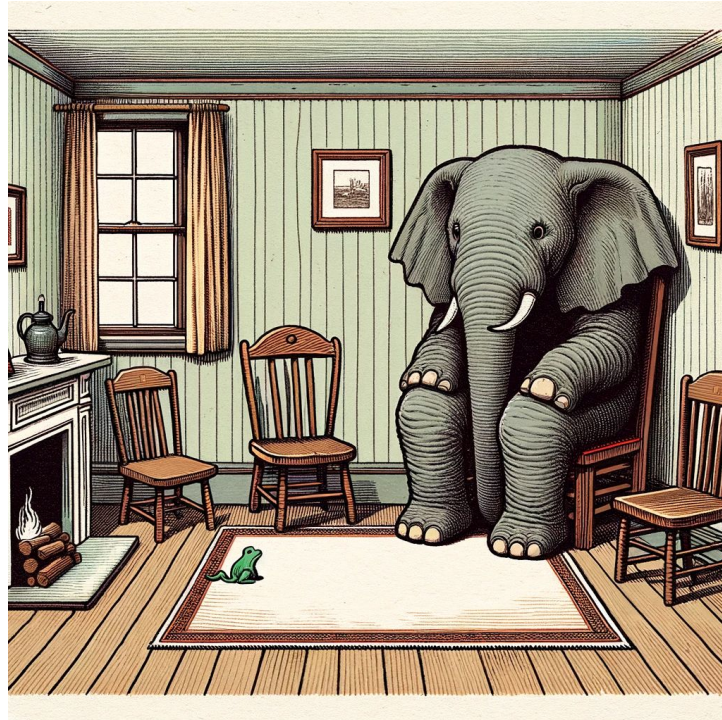


Verify.

**How do you think AI will impact  
jobs in nonprofits/NGOs?**



# Let's talk about the elephant in the room...

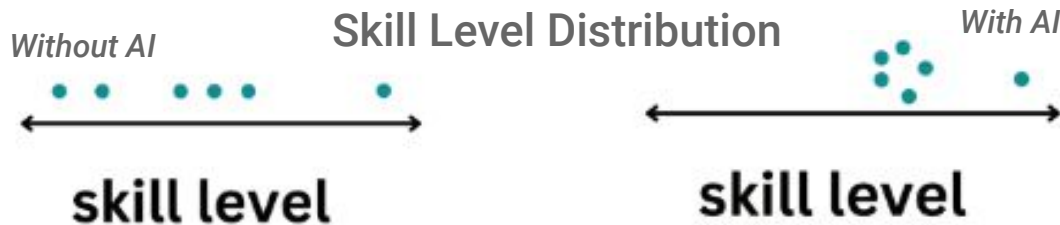


# The Benefits are Real - Ethan Mollick

## “How to rebuild organizations

AI is impacting organizations right now, and leaders who do not take an active role in shaping what that looks like risk falling behind at a rapid pace. No one can tell you the best ways to use AI - every organization will need to figure it out for themselves.

- Let teams develop their own methods. Given that AIs perform more like people than software (even though they are software), they are often best managed as additional team members, rather than external IT solutions imposed by management.
- Build for the future. Organizational change takes time and AI is changing fast, so those adapting processes to AI should be considering future versions of AI, rather than just building for the models of today.
- You don't have time. If the sort of efficiency gains we are seeing from early AI experiments continue, organizations that wait to experiment will fall behind very quickly.”



# Microsoft Report

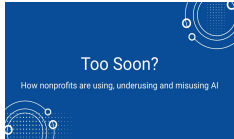
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- Copilot tools can significantly increase task execution speed by 26% to 73%.
- Copilot users felt that the tool saved them an average of 36 minutes, while actual time savings were 12 minutes.
- 73% of employees surveyed agreed that Copilot helped them complete tasks faster.
- 85% of users said Copilot would help them get to a good first draft faster.
- 68% of users agreed that Copilot improved the quality of their work.
- Copilot users found tasks to be 58% less draining than non-users.
- 70% of respondents believed that Copilot increased their productivity.
- 77% of respondents would choose Copilot over a weekly free lunch worth \$40/month.
- Willingness-to-pay for Copilot was 35% higher among those who had used it.

**Source:** [Early LLM-based Tools for Enterprise Information Workers Likely Provide Meaningful Boosts to Productivity | Microsoft Research](#)

# It's here. Experiment.

October 2022



April-May 2023



Oct-Nov 2023



ChatGPT 3.5  
11/30/2022

ChatGPT  
Plugins  
5/12/2023

OpenAI Advanced  
Data Analysis  
7/6/2023

ChatGPT  
Enterprise  
8/28/2023

Microsoft  
CoPilot  
11/1/2023

Google Bard  
Gemini  
12/6/2023

Copilot for  
Small Business  
1/15/2024

ChatGPT 4.0  
3/14/2023

ChatGPT iPhone  
App  
5/18/2023

OpenAI Custom  
Instructions  
7/20/2023

DALL-E3  
9/20/2023

OpenAI  
GPTs  
11/7/2023

OpenAI GPTs  
Store & Team  
1/10/2024

Google Gemini  
Advanced  
2/20/2024

# Thank You!

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