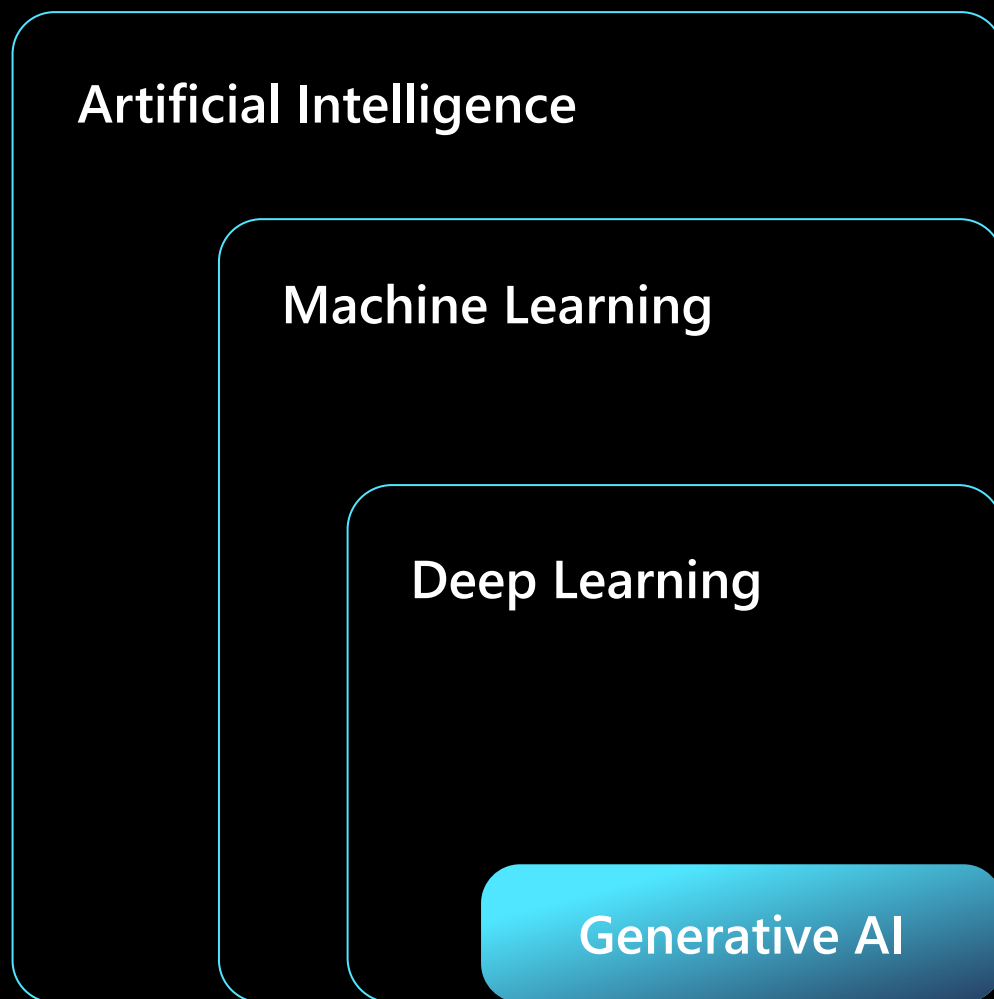


Sector público e IA generativa: Una adopción imparable – 2024+

Adrian Gonzalez Sanchez – 10 de abril de 2024

Contexto de la Inteligencia Artificial



1950s

Artificial Intelligence

the field of computer science that seeks to create intelligent machines that can replicate or exceed human intelligence.

1959

Machine Learning

subset of AI that enables machines to learn from existing data and improve upon that data to make decisions or predictions.

2017

Deep Learning

a machine learning technique in which layers of neural networks are used to process data and make decisions.

2021

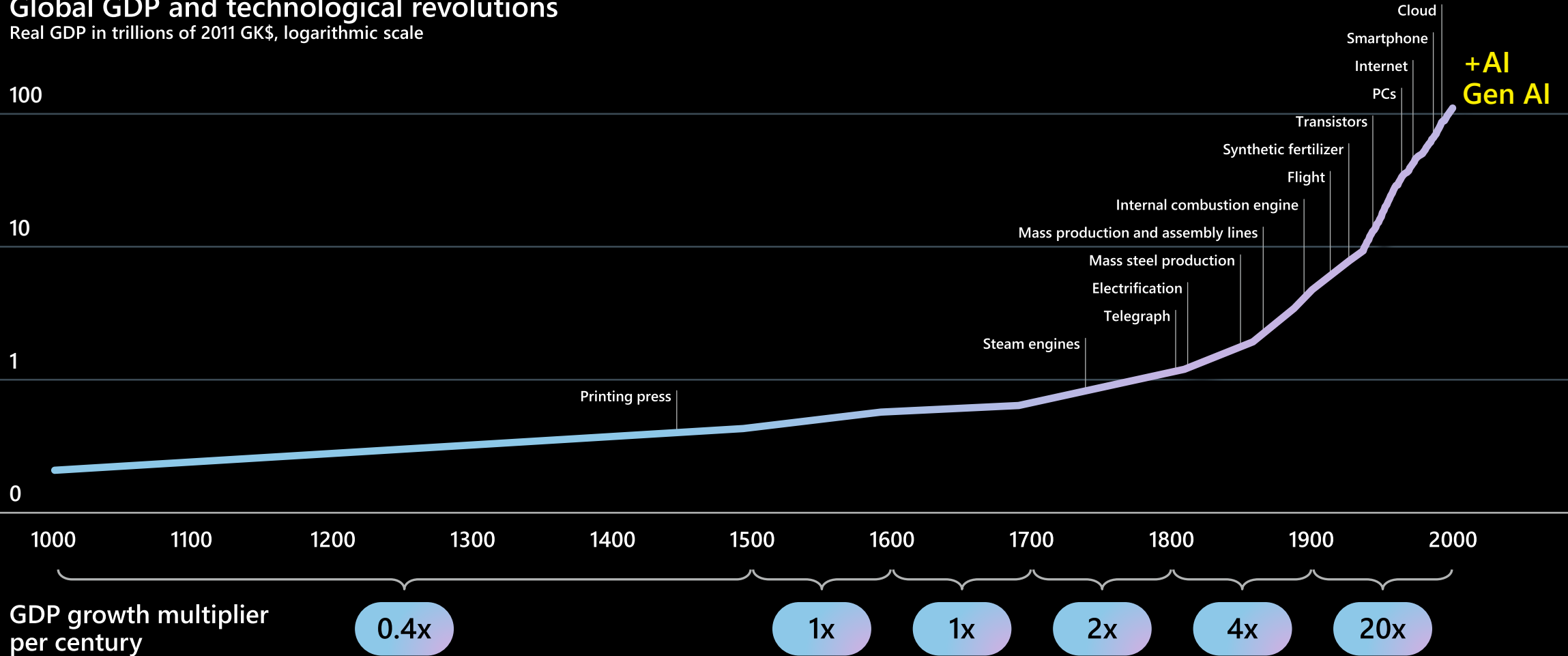
Generative AI

create new written, visual, and auditory content given prompts or existing data.

Impacto de la tecnología en el PIB global...

Global GDP and technological revolutions

Real GDP in trillions of 2011 GK\$, logarithmic scale

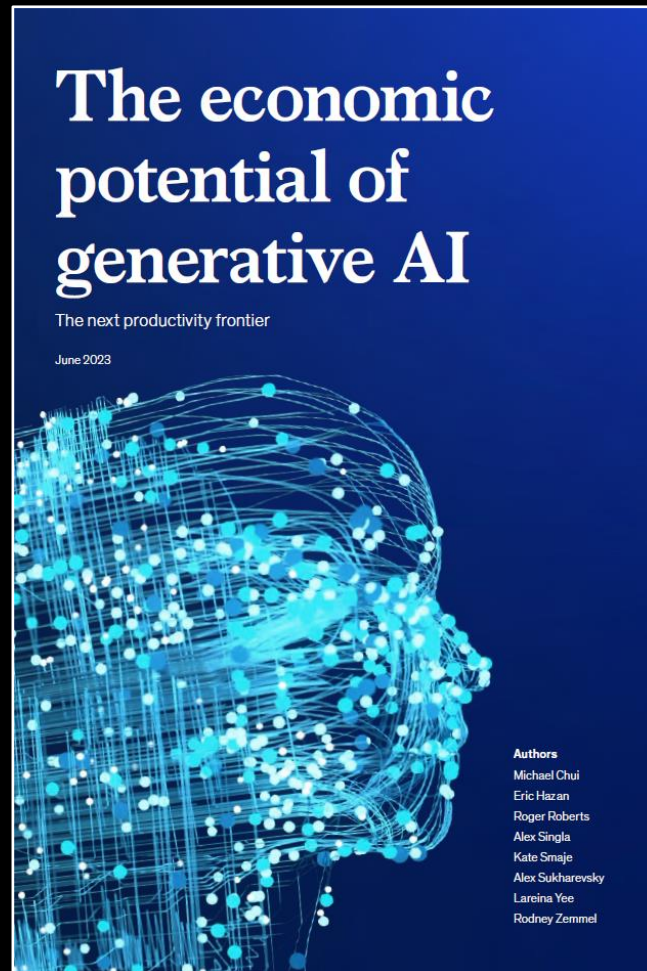


Source: Maddison Project, Ourworldindata

... e informes que indican el valor de la adopción de la IA generativa



McKinsey
& Company



- Generative AI's impact on productivity could add up to **\$4.4 trillion annually** in value to the global economy.
- About 75% of the value that generative AI use cases could deliver falls across **customer operations, marketing, sales, software engineering, and R&D**.
- Generative AI can revolutionize work by automating a significant portion of employees' activities, **up to 60-70% of their current workload**. This augmentation of individual capabilities has the potential to transform the way we work.
- Generative AI is expected to have **\$ 250-410 billions economic impact on banking and insurance**, accounting for 1-1.6% of total industry revenue.

Pero... ¿Cómo impacta esto REALMENTE al Sector Público?

Lo que realmente nos importa en contexto público



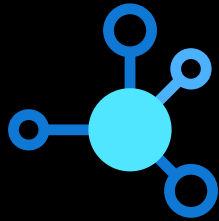
Mejores
servicios a la
ciudadanía

Aumento de
productividad
con copilotos
internos

Procesado
avanzado de
documentación

Optimización
de la inversión
pública

IA generativa, ¿por qué ahora?



Foundation
models



Cloud AI
Supercomputers



Massive
data

IA generativa

Capabilities for language, code, image, etc.

Prompt

Write a tagline for an ice cream shop.

Response

We serve up smiles with every scoop!

Prompt

```
Table customers, columns =  
[CustomerId, FirstName,  
LastName, Company, Address,  
City, State, Country,  
PostalCode]
```

Create a SQL query for all customers in Texas named Jane
query =

Response

```
SELECT *  
FROM customers  
WHERE State = 'TX' AND  
FirstName = 'Jane'
```

Prompt

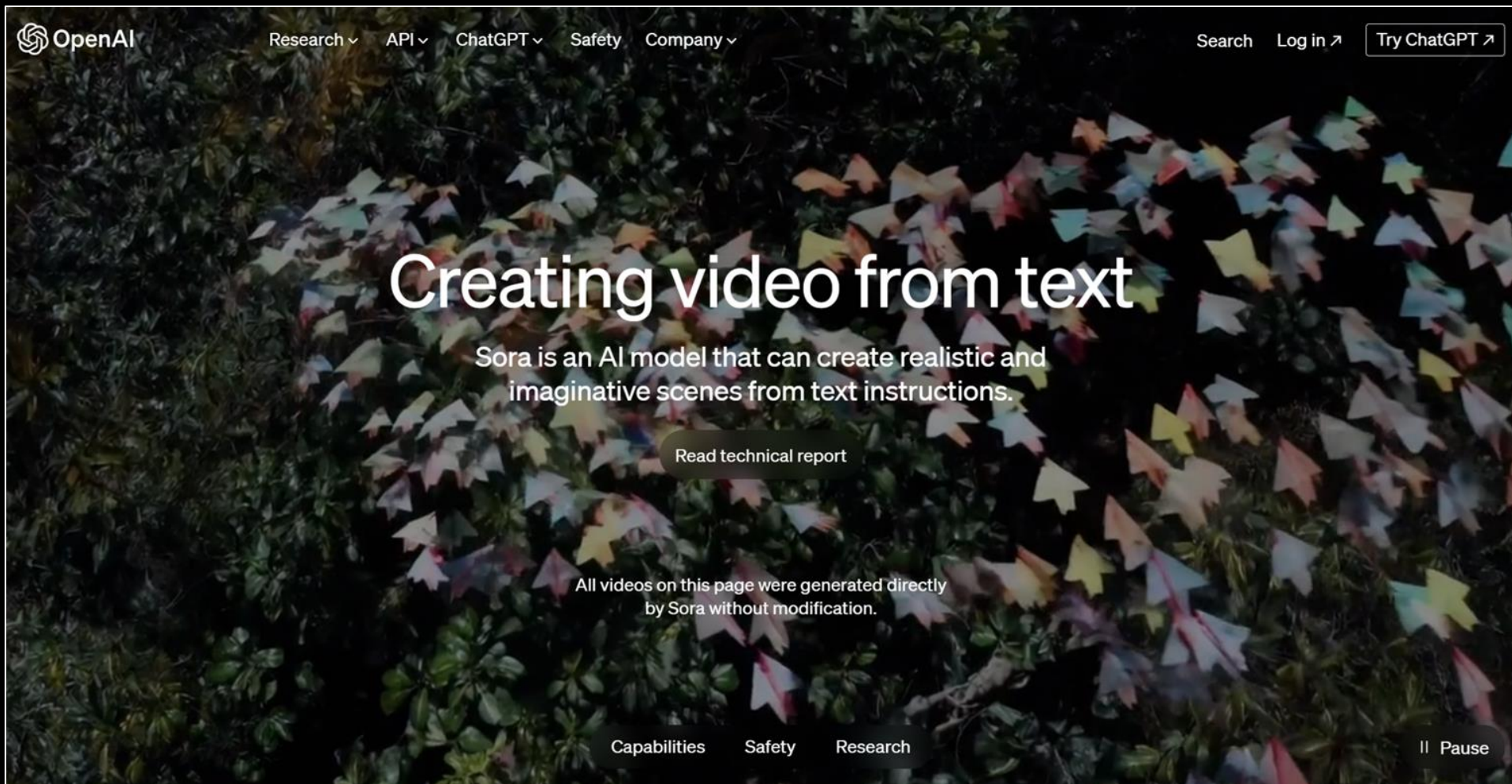
A ball of fire with vibrant colors to show the speed of innovation at our media and entertainment company

Response



IA generativa

Capabilities for language, code, image, ~~etc.~~ and video!



The screenshot shows the OpenAI website interface. At the top left is the OpenAI logo. The navigation menu includes 'Research', 'API', 'ChatGPT', 'Safety', and 'Company'. On the right, there are links for 'Search', 'Log in', and a 'Try ChatGPT' button. The main content area features a video player with the title 'Creating video from text'. Below the title, a subtitle reads: 'Sora is an AI model that can create realistic and imaginative scenes from text instructions.' A 'Read technical report' button is positioned below the subtitle. A note at the bottom of the video area states: 'All videos on this page were generated directly by Sora without modification.' At the bottom of the page, there are links for 'Capabilities', 'Safety', and 'Research', along with a 'Pause' button.

OpenAI

Research ▾ API ▾ ChatGPT ▾ Safety Company ▾

Search Log in ↗ Try ChatGPT ↗

Creating video from text

Sora is an AI model that can create realistic and imaginative scenes from text instructions.

[Read technical report](#)

All videos on this page were generated directly by Sora without modification.

Capabilities Safety Research

|| Pause

IA generativa

Top 4 capabilities



Content generation

Personnel support:
automatically generate responses to personnel inquiries

Generate personalized UI for your workflow app

Creation of training data sets and synthetic environments



Summarization

Field report analytics:
summary of tactical radio logs

Subject matter expert document:
summarization (e.g., reporting, analyst articles)

OSINT trends summarization



Code generation

Convert natural language to SQL (or vice versa) for telemetry data

Convert natural language to query proprietary data models

Code documentation



Semantic search

Search reviews for a specific product/service

Information discovery and knowledge mining

Examples of multiple model use cases

End to end field report analytics: labelling, sentiment, entity extraction, summarization and email generation

Personnel Support : hyper-personalisation using timely summarization of personnel queries & trends, search, and content generation

Business process automation: search through structured & unstructured documentation, generate code to query data models, content generation

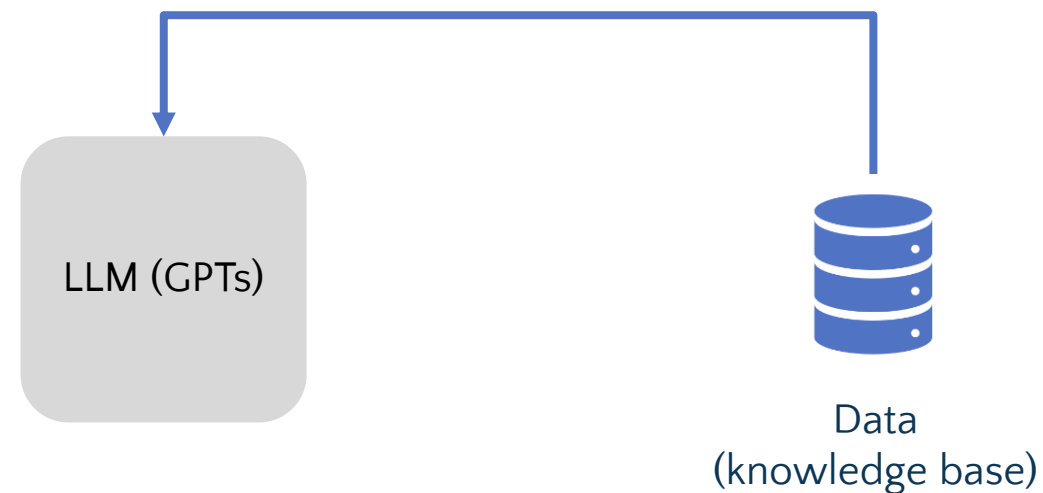
IA generativa

Manera de personalizar desarrollos...

Fine-tuning



RAG (Retrieval)



¿Es la IA generativa TAN diferente?

1

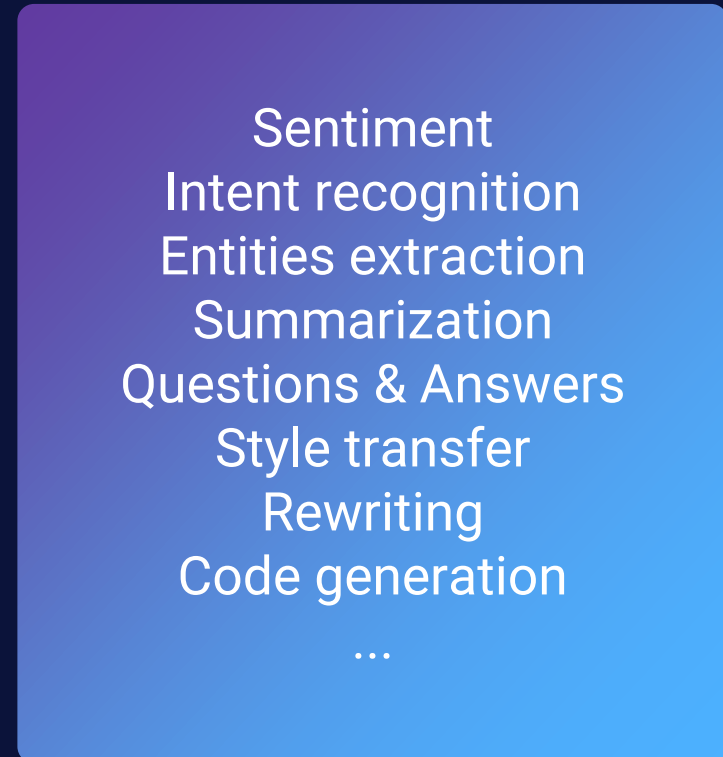
Why is **Generative AI** different?



Traditional Models
(one model per capability)

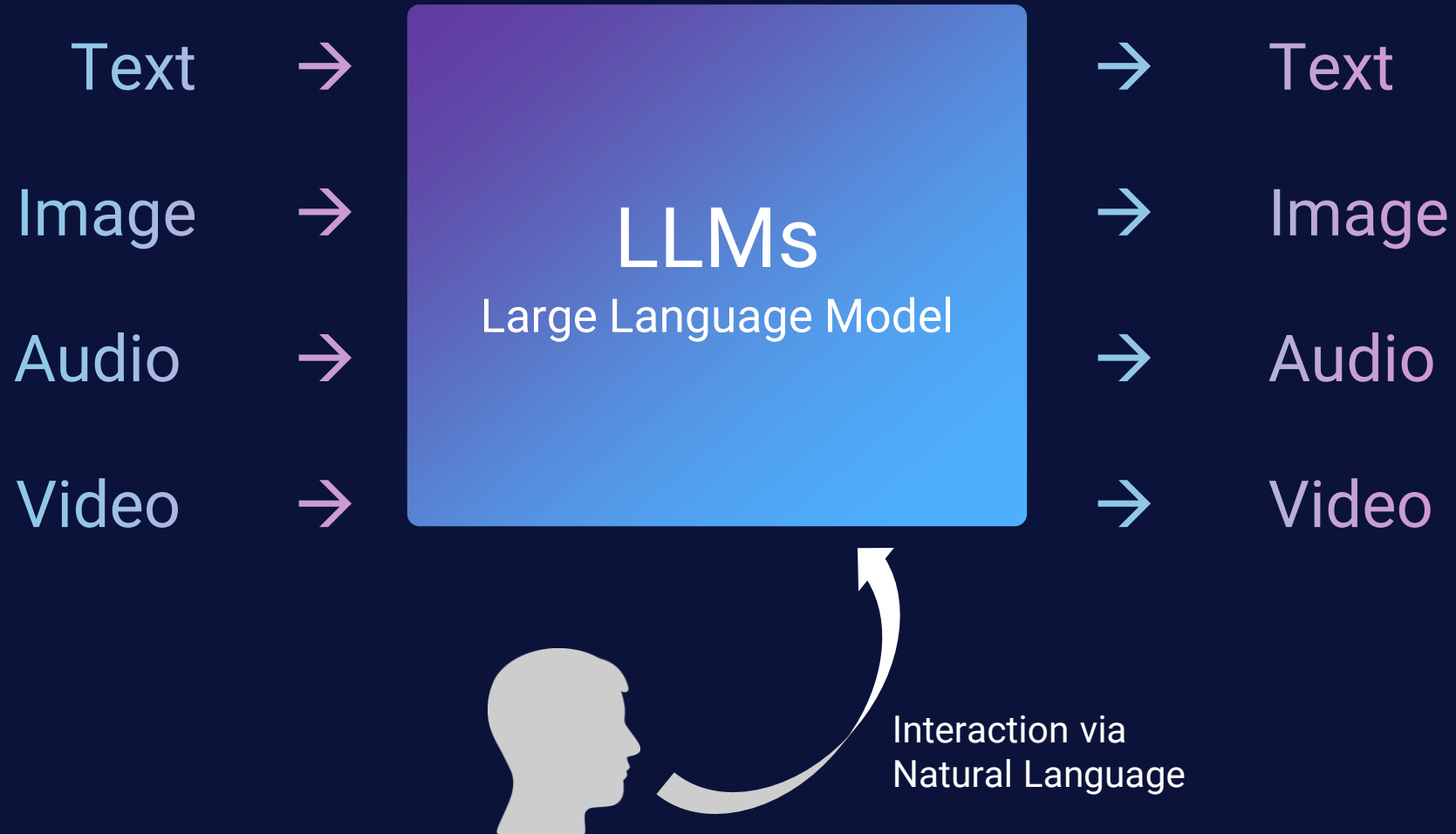


New Foundation Models
(one single model for everything)



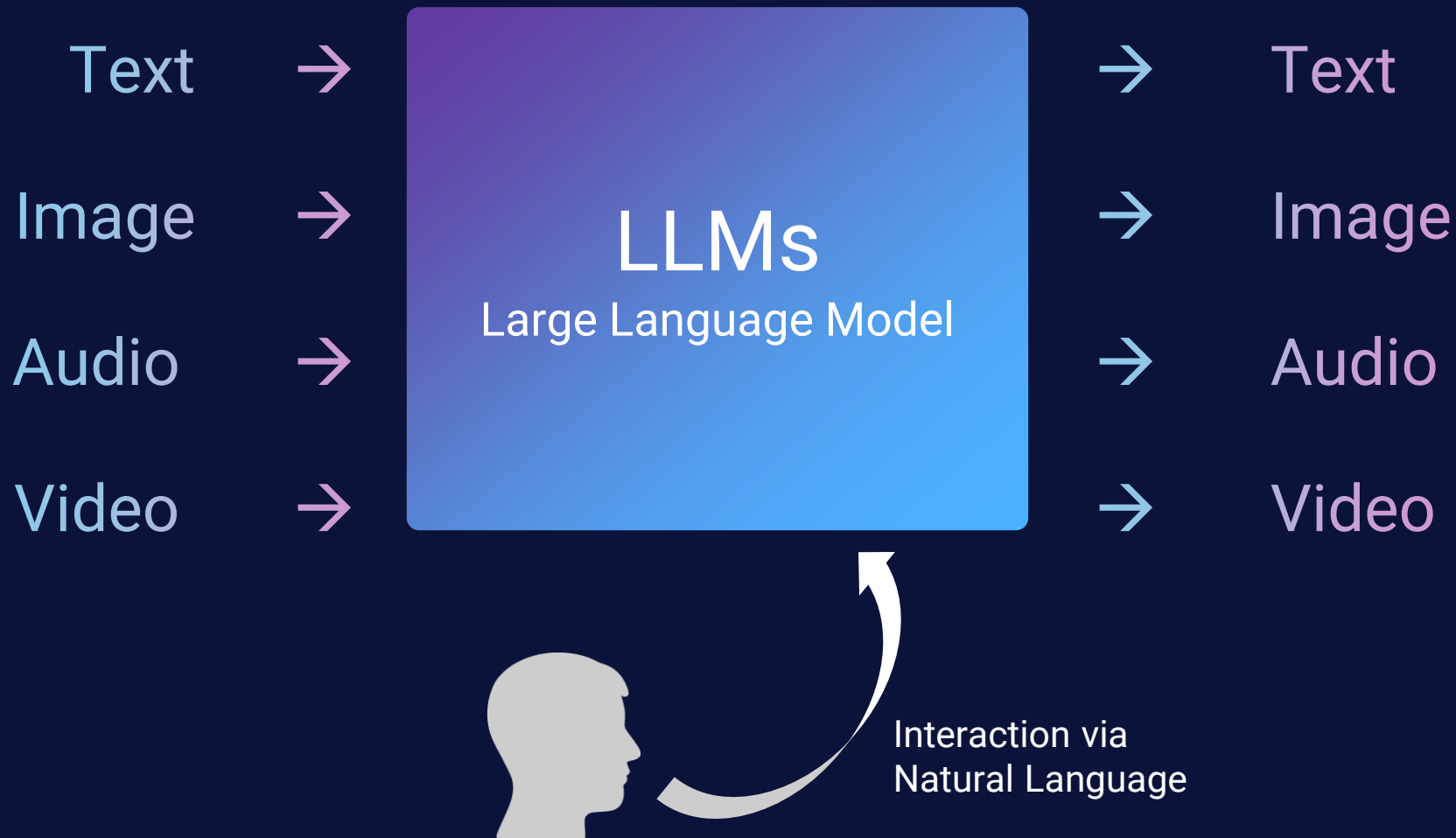
2

Why is **Generative AI** different?



3

Why is **Generative AI** different?



Y... ¿Cómo usamos la IA generativa aquí?

Typical Use Cases



Productivity

Reduce tedious tasks in every function to focus on more valuable, satisfying activities.

Automatic reporting

Generate reports automatically to get the most up-to-date information.

Content assistance

Assist in content generation, styling and design

Semantic search

Track knowledge and information, making it easier for employees to find and use information they need.

Reading comprehension

Understand natural language data, making it easier to extract information and summarize large sources of text

Machine Translation

Automatically translate text from one language to another

Code development and understanding

Generate code from natural language, understand existing code, document code and refactor



Augmented cognition

Co-reason interactively with AI on knowledge and information to augment our capabilities.

Knowledge reasoning

Interact with internal and external knowledge to make decisions collaboratively.

Content generation

Automatically generate content based on knowledge or data

Sentiment Analysis

Analyze the sentiment of text data to understand customer sentiment and make better decisions.

Agent assistance

Assist support agents and automate response to inquiries

Security

Protect data and prevent unauthorized access

Predictive Modeling

Predictive models that can be used to make better decisions about the future.

Analytics

Extract insights from raw data that facilitate informed decision making about their business



Accelerated discovery

Understand and simulate nature processes, empowering scientists to advance discovery on any field.

Scientific co-reason

Interact with scientific knowledge to validate hypotheses.

Experimentation

Perform lab experiments on silicon at scale.

Screening

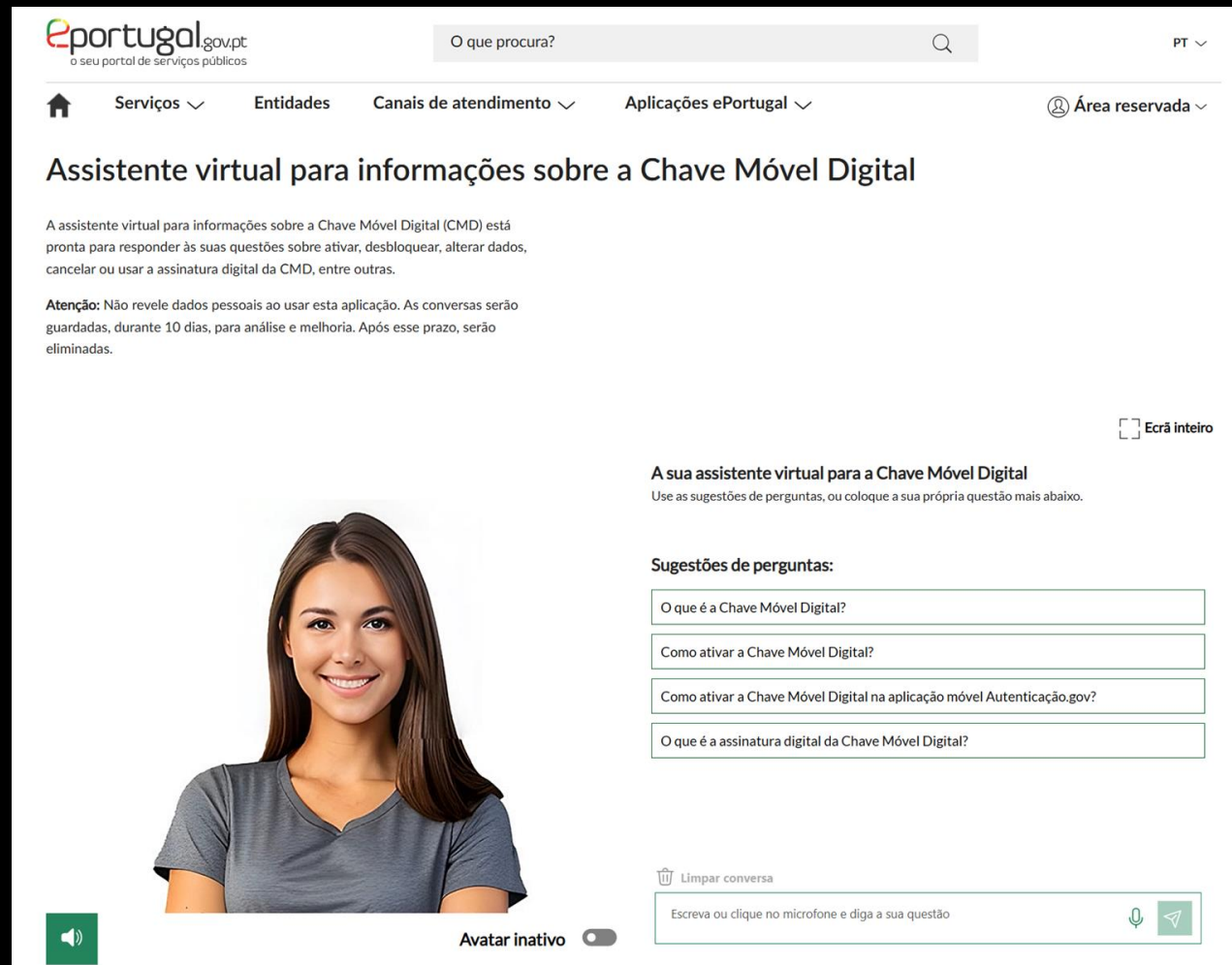
Automatically identify candidates for specific goals

Predictive modeling

Simulate compounds to understand properties and reactions

Avatar ePortugal de Gobierno de Portugal

<https://eportugal.gov.pt/pt/servicos/assistente-virtual-para-servicos-publicos>



The screenshot shows the ePortugal website's virtual assistant interface. At the top, there is a search bar with the text "O que procura?" and a language selector set to "PT". Below the search bar is a navigation menu with options: "Serviços", "Entidades", "Canais de atendimento", "Aplicações ePortugal", and "Área reservada". The main heading is "Assistente virtual para informações sobre a Chave Móvel Digital". Below this, there is a paragraph explaining the assistant's purpose and a warning: "Atenção: Não revele dados pessoais ao usar esta aplicação. As conversas serão guardadas, durante 10 dias, para análise e melhoria. Após esse prazo, serão eliminadas." To the right of the text is a "Ecrã inteiro" button. Below the text is a large image of a smiling woman, the virtual assistant's avatar. Below the image is a "Limpar conversa" button and a text input field with a microphone icon and a "Enviar" button. The text input field contains the placeholder text "Escreva ou clique no microfone e diga a sua questão". Below the text input field is a "Avatar inativo" toggle switch.

eportugal.gov.pt
o seu portal de serviços públicos

O que procura?

PT

Serviços Entidades Canais de atendimento Aplicações ePortugal Área reservada

Assistente virtual para informações sobre a Chave Móvel Digital

A assistente virtual para informações sobre a Chave Móvel Digital (CMD) está pronta para responder às suas questões sobre ativar, desbloquear, alterar dados, cancelar ou usar a assinatura digital da CMD, entre outras.

Atenção: Não revele dados pessoais ao usar esta aplicação. As conversas serão guardadas, durante 10 dias, para análise e melhoria. Após esse prazo, serão eliminadas.

Ecrã inteiro

A sua assistente virtual para a Chave Móvel Digital

Use as sugestões de perguntas, ou coloque a sua própria questão mais abaixo.

Sugestões de perguntas:

- O que é a Chave Móvel Digital?
- Como ativar a Chave Móvel Digital?
- Como ativar a Chave Móvel Digital na aplicação móvel Autenticação.gov?
- O que é a assinatura digital da Chave Móvel Digital?

Limpar conversa

Escreva ou clique no microfone e diga a sua questão

Avatar inativo

Ciudad de New York para empresas

<https://chat.nyc.gov>

NYC MyCity Official website of the City of New York **Business** Seleccionar idioma

MyCity Chatbot ^{Beta}

The MyCity Chatbot uses information published by the NYC Department of Small Business Services to respond to you. Other City information will be made available in the future. Please verify the MyCity Chatbot's answers with the links it provides you, and do not rely on its responses as a substitute for professional advice. Please do not provide sensitive information to the MyCity Chatbot.

Examples

"How do I avoid noise violations and complaints for my construction company?" →

"I'd like to start a new cafe and bakery in Manhattan." →

"How do I apply for the MWBE program?" →

Capabilities

Trained to provide you official NYC Business information.

Will not use the contents of your chat history to learn new information.

Responds to languages required by [Local Law 30](#).

Limitations

May occasionally produce incorrect, harmful or biased content.

Limited knowledge of the world beyond NYC Business topics.

Trained to decline inappropriate requests.

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Ask MyCity Chatbot a question ➤

Asistentes y simplificación de lenguaje con EJIE



https://www.contratacion.euskadi.eus/webkpe00-kpeperfi/es/contenidos/anuncio_contratacion/expjaso416428/es_doc/index.html

Kontratazio Publikoa Euskadin
plataforma
Contratación Pública en Euskadi

MENÚ PRINCIPAL Servicios para la Aplicación de Microsoft Azure Cognitive Services a casos de uso de Atención a la Ciudadanía.

[Información General](#)
[Búsqueda de anuncios](#)
[Búsqueda de Poderes Adjudicadores](#)
[Acceso Poderes Adjudicadores](#)

EJIE-066-2023

Imprimir | Sello de Tiempo

Objeto del contrato:
Servicios para la Aplicación de Microsoft Azure Cognitive Services a casos de uso de Atención a la Ciudadanía.

Fecha de la primera publicación: 02/06/2023 13:35
Fecha de la última publicación: 29/06/2023 11:00
Expediente: EJIE-066-2023
Tipo de contrato: Servicios
Estado de la tramitación: Plazo cerrado
Presupuesto del contrato sin IVA: 100.000
Poder adjudicador: EJIE, S.A. - Sociedad Informática del Gobierno Vasco
Entidad impulsora: A01022664 - EJIE-Sociedad Informática del Gobierno Vasco
Dirección web de Licitación electrónica: <https://www.contratacion.euskadi.eus/KPELicitacion>

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Contexto tecnológico

[Microsoft] ha incorporado en su oferta de [\[Cognitive Services\]](#) la posibilidad de utilizar los servicios de [\[OpenAI\]](#) en base a los siguientes [\[modelos\]](#)

| | |
|----------------------|--|
| GPT-3 y GPT-4 | Modelos que pueden entender y generar [lenguaje natural] |
| Codex | Modelos que pueden entender y generar [código] incluyendo la traducción de [lenguaje natural] a [código] |
| Embeddings | Los [vector embeddings] son una representación de [parámetros] que puede representar datos de diferentes tipos (<i>texto, audio e imágenes</i>) y permiten comparar o establecer relaciones entre los datos Hay tres modelos de este tipo dependiendo de la funcionalidad buscada: <ul style="list-style-type: none">• Similitud• Búsqueda de texto• Búsqueda de código |

Generación de postales para eventos culturales

Use AI to generate an St. Patrick's Day Card for only €4

 You can generate a maximum of 3 images

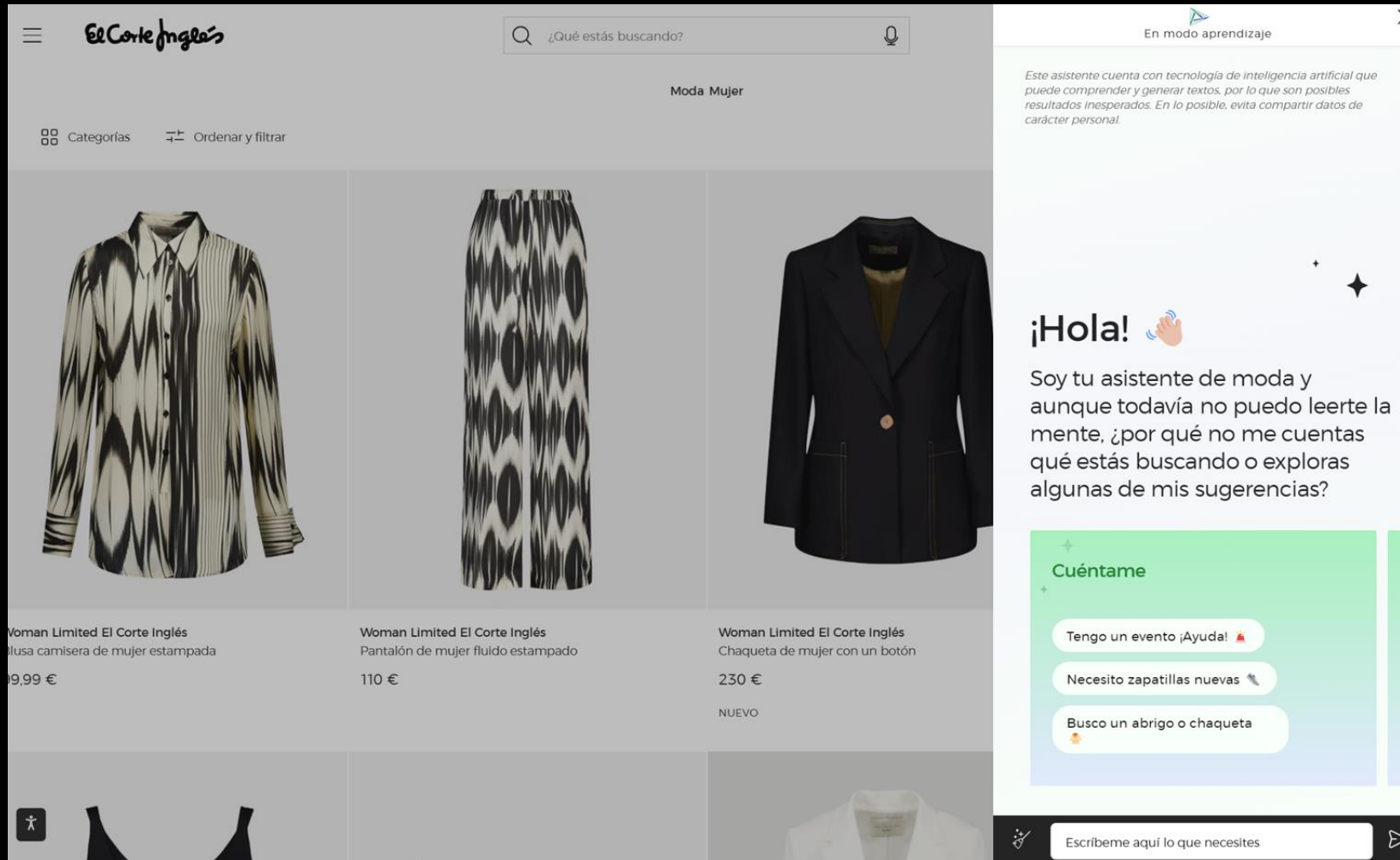
Select keywords below to generate an image for your card.

- Aran Islands
- Blarney Stone
- Book Of Kells
- Brian Boru
- Castles
- Celtic Knot
- Children Of Lir
- Claddagh
- Cliffs Of Moher
- Cu Chulainn
- Dancing
- Druids
- Food
- Friendly
- Giants Causeway
- GPO
- Green Landscapes
- Harp
- Irish Flag
- Literature
- Lighthouses
- Molly Malone
- St Patrick
- Poetry
- Shamrock
- Socialising
- Sport
- St. Brigids Cross
- Tara Brooch
- Tir Na NOg

Generate image



Bot Avanzado de cliente



The image shows a screenshot of the El Corte Inglés website. The top part displays the website's header with the logo, a search bar containing "¿Qué estás buscando?", and navigation options like "Moda Mujer", "Categorías", and "Ordenar y filtrar". Below the header, there is a grid of clothing items for sale, including a striped blouse, a patterned skirt, and a dark blazer. Each item has a price tag and a "NUEVO" (New) label.

On the right side, there is an AI chatbot interface. At the top, it says "En modo aprendizaje" (Learning mode). Below that, a disclaimer reads: "Este asistente cuenta con tecnología de inteligencia artificial que puede comprender y generar textos, por lo que son posibles resultados inesperados. En lo posible, evita compartir datos de carácter personal." (This assistant uses artificial intelligence technology that can understand and generate text, so unexpected results are possible. Whenever possible, avoid sharing personal data.)

The chatbot greets the user with "¡Hola! 🙌" (Hello!) and asks: "Soy tu asistente de moda y aunque todavía no puedo leerte la mente, ¿por qué no me cuentas qué estás buscando o exploras algunas de mis sugerencias?" (I am your fashion assistant and although I still cannot read your mind, why don't you tell me what you are looking for or explore some of my suggestions?).

Below the greeting, there are three suggested topics in a green box: "Cuéntame" (Tell me), "Tengo un evento ¡Ayuda! 🚨" (I have an event! Help!), "Necesito zapatillas nuevas 👟" (I need new shoes), and "Busco un abrigo o chaqueta 🧥" (I am looking for a coat or jacket).

At the bottom of the chatbot interface, there is a text input field with the placeholder "Escribeme aquí lo que necesites" (Write me here what you need) and a send button.

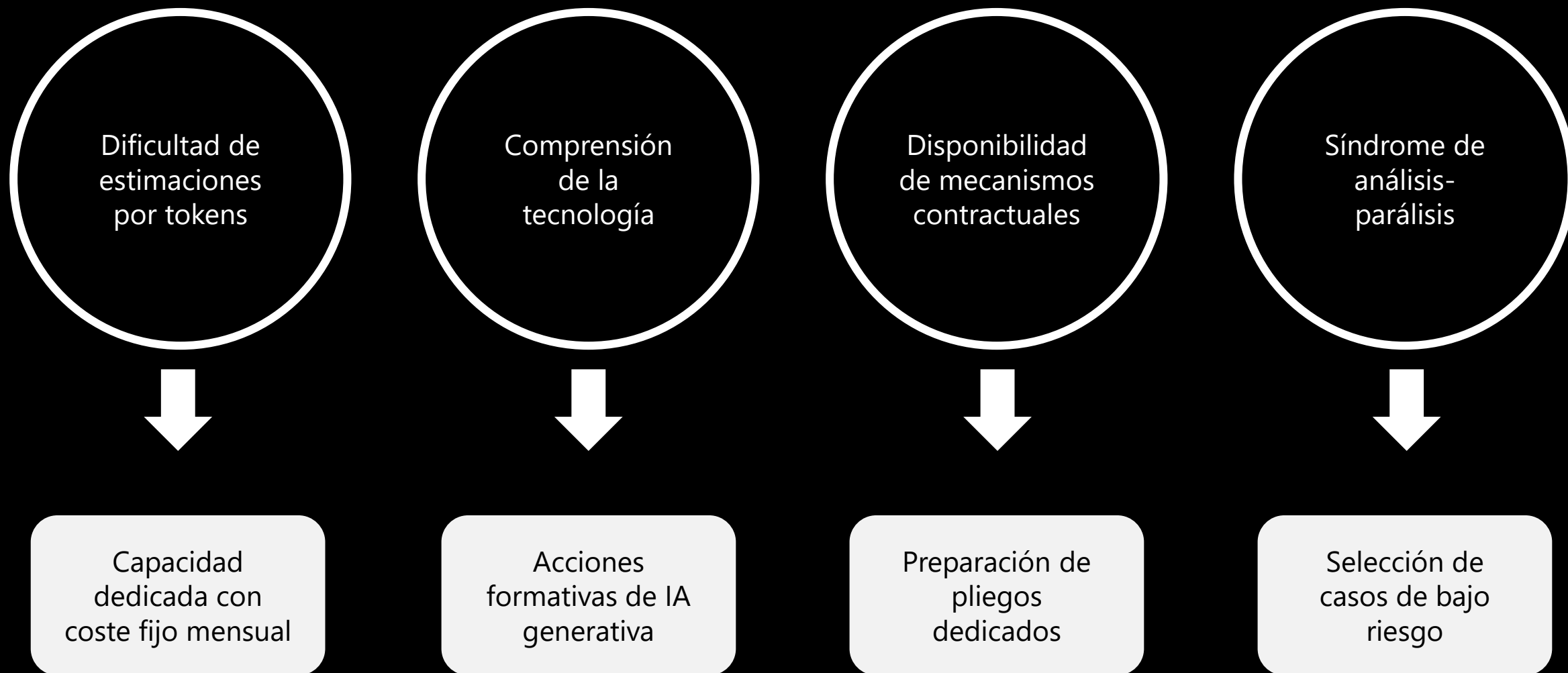
¿Cuales son los retos actuales?

Dificultad de
estimaciones
por tokens

Comprensión
de la
tecnología

Disponibilidad
de mecanismos
contractuales

Síndrome de
análisis-
parálisis



Hablemos

www.linkedin.com/in/adriangs86

adriango@microsoft.com