

ChatGPT and generative AI: What are the opportunities and challenges for SMEs?

“Una manera de hacer Europa”

Fondo Europeo de Desarrollo Regional

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Introduction

Generative AI, such as that used by **ChatGPT**, has gained widespread popularity and global attention due to its **ability to create new content** in a variety of formats, such as text, images and videos. While it offers exciting **opportunities** for businesses, it also poses ethical and security challenges that must be addressed through appropriate regulations.

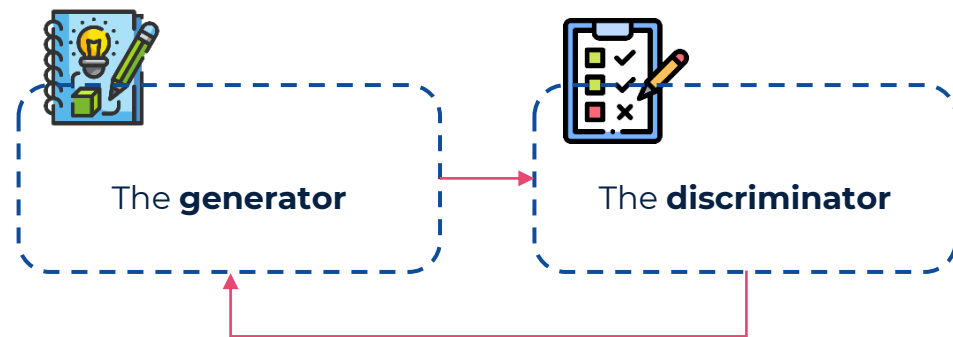
It is **crucial** to understand and responsibly harness the potential of generative AI to **drive growth and innovation in the business world**.



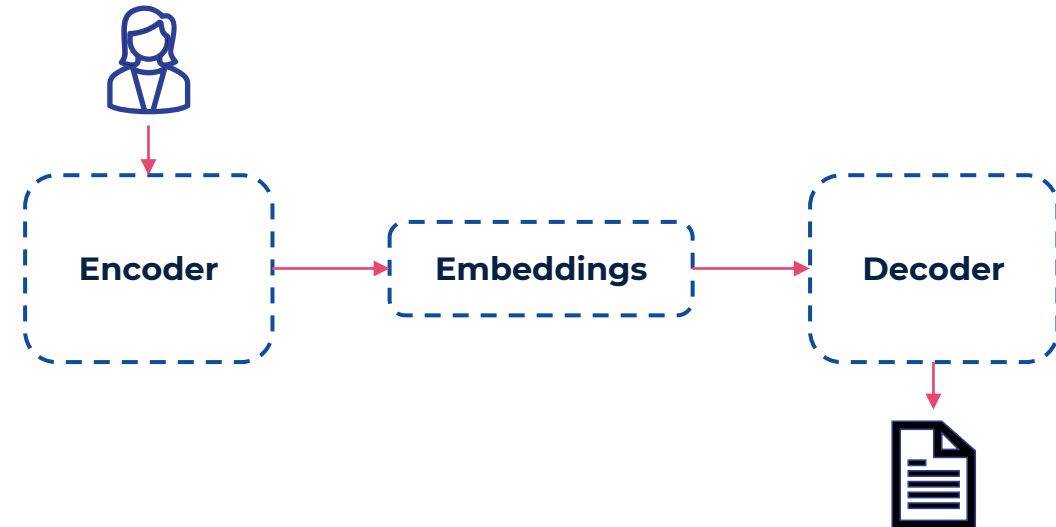
What is generative AI and how does it work?

> Generative Artificial Intelligence (AI) is a branch of **machine learning** AI, which is capable of **creating new original content** from existing data.

> Generative AI of the GAN (Generative Adversarial Network) type works with a learning model that is composed of two **main elements**:



> GPT (Generative Pre-Trained Transformer) type generative AI is based on a learning model composed of two **main blocks**:



> These technologies are **constantly growing and improving**, so **advances** will be rapid.

Benefits



**SPECIFIC
INTELLIGENCE**



CREATIVITY



**DESIGN AND
CUSTOMIZATION**



ACCESSIBILITY



**REDUCTION OF
REPETITIVE TASKS**



**PRODUCTIVITY AND
COST REDUCTION**



**ADVANCED DATA
ANALYSIS**



INTEGRATION



DISRUPTION

Use cases



Sentiment or behavioral analysis



Image and video generator



Music generator



Content generator



Research



Summaries and information extraction



Customer service and sales



SEO strategy or web positioning



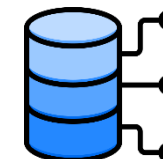
Translations or editing in other languages



Process automation



Computer code development

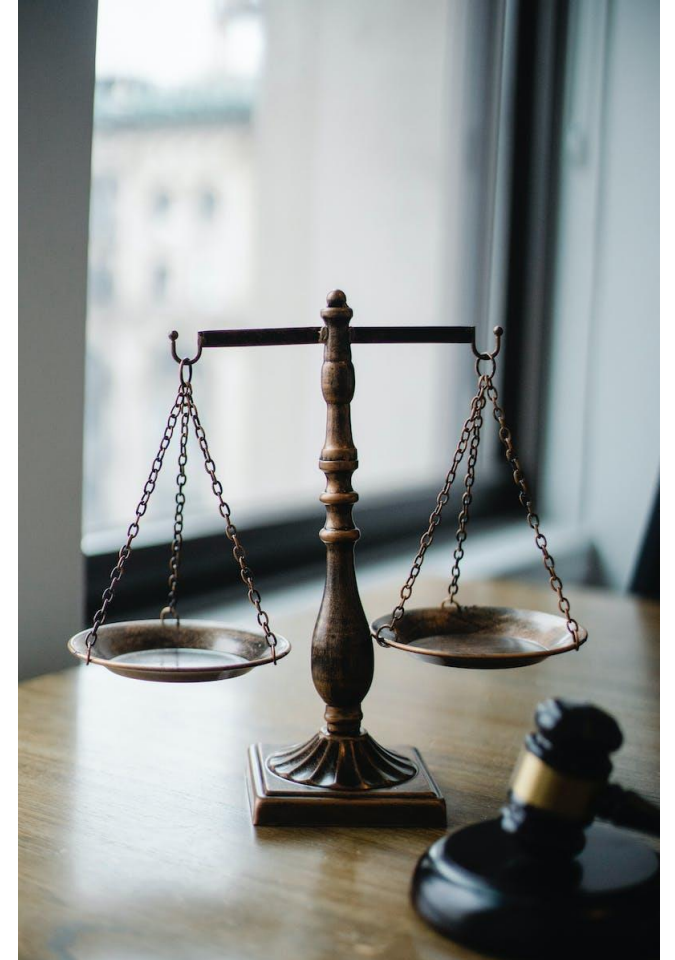


Synthetic data generator

Challenges and fears



- **Monopoly**
- Possible **misuse of technology:**
 - Fake news
 - Deepfakes
 - Identity theft
- **Support in decision-making processes**
- **Accuracy and veracity**
- **Intellectual property and legal challenges**
- **Staff replacements**
- **Biases**
- **Environment**
- **Innovation vs. Regulation**



Application tips

A series of **recommendations for its proper use** are detailed below:

- > **Human supervision**
- > **Verify and validate sources**
- > Provide **clear instructions**
- > **Train the AI**
- > **Check for bias**
- > **Transparency**



Regulations to consider

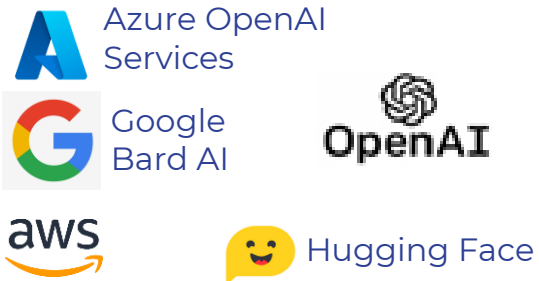


ETHICAL GUIDELINES FOR A RELIABLE IA

- Human intervention
- Human manipulation and surveillance
- Technical robustness and security
- Data protection and data governance
- Copyright and intellectual property
- Transparency
- Diversity, non-discrimination and equity
- Lack of clear accountability
- Regulation on artificial intelligence

Tools

Transversal (Foundation Models)



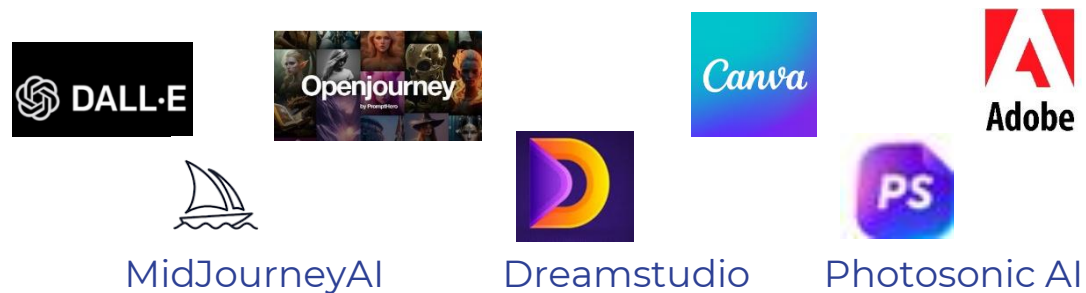
Textual content and conversation



Videos



Images and visual content



Music

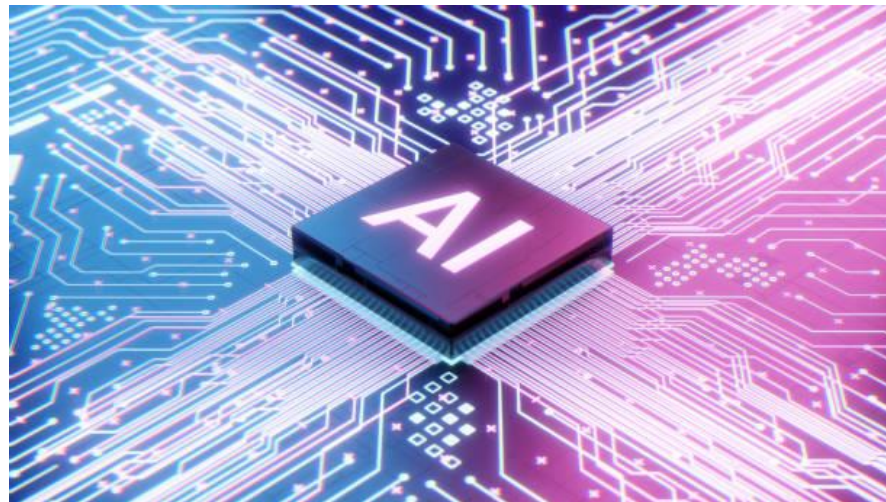


Conclusion

Generative AI offers **multiple opportunities for SMEs**, from the creation of written content, chatbots, images or process automation.

Knowledge of these technologies is essential for the whole of society, including SMEs, because of the power of innovation and transformation that they imply.

In short, their use brings great benefits, and must be **carried out in an ethical and transparent manner.**



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