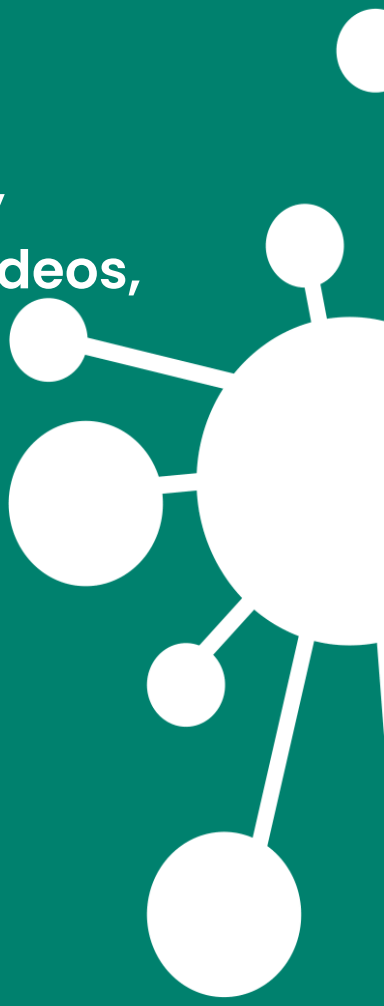
Deliverable 2.1

[D2.1 - AI and data literacy toolkit for facilitators including lessons, quizzes, materials, more in-depth material, videos, images, templates for reporting]



FREEYOU NEXT

Co-funded by the European Union

Miro link:

https://miro.com/welcomeonboard/T3RNdmZxM0h0U25xeDY0ZWVUbjhjZldCQm5QMUNBaHc1VldwYUJBWEtMcXRvWlFtQlhwRjdERHpGc0hNRHZZbXwzNDU4NzY0NTI3NDgwNzI4NDgwfDI=?share_link_id=263681036221

Data Toolkit Index

Introduction

FREEYOU Next

FREEYOU Next builds on FREEYOU – a project funded by the Media Literacy for All Programme – and its main product: a blended multilingual educational format (and resources) for media and data literacy, targeted to teachers, educators, facilitators that work with youngsters.

Objectives

The project builds on an open platform that promotes an aware use of social media among youngsters, through innovative format with a focus over the following themes:

1. Fact-checking (social media verification, video/pictures authentication, source checking)
2. News distribution and amplification (filter bubbles, algorithmic filtering, viral content circulation)
3. Artificial intelligence (deep fake, synthetic media, etc)

Results

Planned activities, this toolkit, platform

How to use this toolkit

This toolkit is comprised of 2 courses that combine cutting edge tools in order to teach about data and media literacy. Both courses offer 2 hours of online, on-demand, materials that are devised into 1 hour of more theoretical thinking and 1 hour of practical applications. Both courses also offer 2 hours of live workshop where the theoretical and practical overlap by making your own creative appliance of the tools seen over the course. An introductory webinar serves as a more in depth guide on how to use this toolkit as well as a stepping stone into the 2 courses.

Program

Introductory webinar

During this webinar, we will introduce you to a wide range of tools, courses, and exercises that you can apply in the field of media and data literacy. The webinar lasts 2 hours and will focus on practicalities, including training, pilot programs, and events, followed by a gamified discussion on the impact of AI and Data in education using Mentimeter/Kahoot.

Course 1: A Data World: Synthetic Media analysis and production

On-Demand Session 1: "Living in a World Built on Data"

(1 hour)

Digital Footprints and Data Shadows

Illustrate the vast web of data we produce and interact with daily.

The Dual Nature of Data

Showcase the pros and cons of a data-driven society.

The Rise of Synthetic Media

Provide a brief history and the evolution of deepfakes.

Implications of a Data-Driven Reality

Delve into societal and individual consequences of a world built on data.

Myths and Facts about Data and Deepfakes

Quiz to test understanding and reinforce key points from the session.

On-Demand Session 2: "Crafting & Deciphering Synthetic Imagery"

(1 hour)

A Peek into Deepfake Technology

Break down the technology behind deepfakes and synthetic media.

Tools of the Trade

Introduce various software and techniques to create and detect deepfakes.

Defending Against Deepfakes

Case studies of real-world incidents and how they were detected.

Artistic Endeavors with Deepfakes

Explore how artists and creators use synthetic media in their work.

Spot the Deepfake Activity

Challenge participants to discern between real images/videos and deepfakes.

Recap Quiz

Reinforce key points from the session.

Live Workshop: "Empowering Educators: Navigating Synthetic Media in the Classroom"

(2 hours)

Icebreaker: Deepfake or Real?

Begin with a fun activity where participants guess whether certain videos are real or manipulated.

Exploring the Toolkit

Hands-on demonstration of the digital toolkit. Guide through various tools and their applications.

Activity: Create Your Own

Teachers experiment with creating harmless deepfakes or synthetic media.

Discussion: Synthetic Media Ethics

Group discussion on the ethical considerations of synthetic media.

Curriculum Integration

Brainstorming on how to integrate lessons on synthetic media into various subjects.

Wrap-Up & Q&A

Reflect on the importance of media literacy in the age of deepfakes and answer any lingering questions.

Course 2: Chatbots in VR: The Wonders of Prompt Engineering

On-Demand Session 1: "Chatbots and new means of visualizing them"

(1 hour)

Chatting with chatbots

What are chatbots?

Have you ever seen a chat window pop-up that keeps asking you the same question every time you revisit a certain website? Odds are that's not a real person on the other end but a chatbot.

Chatbots, by definition are computer programs designed to simulate conversation with human users.

They can be used to communicate with people, answer common questions, and perform specific tasks they were programmed for. They gather and process information while interacting with the user and increase the level of personalization.

How are they made?
How do their llm work and what can they do?

Next up we'll look at how you can visualize chatbots in Virtual Reality (VR) and Mixed Reality (MR)

Mixed reality formats

Differences between VR/AR/MR.

How can VR/AR be used to visualize results?

Short quiz

Questions:

- What is a chatbot primarily designed for?
  a) Playing video games

  b) Interacting with users through text or voice

  c) Preparing coffee

- Which of the following is a common use case for chatbots?
  a) Grilling hamburgers

  b) Assisting with customer support

  c) Piloting an airplane

  d) Solving complex mathematical equations

- Virtual Reality (VR) aims to:
  a) Augment the real world with digital elements

  b) Create a completely immersive digital environment

  c) Blend the real and digital worlds seamlessly

  d) Enhance your smartphone's camera capabilities

- Augmented Reality (AR) technology:
  a) Replaces the real world with a computer-generated one

  b) Adds digital content to the user's view of the real world

  c) Allows users to interact with fictional characters

  d) Encrypts messages in the real world

- Mixed Reality (MR) differs from AR and VR in that it:
  a) Combines both physical and digital elements, allowing interaction

  b) Exclusively uses holograms

  c) Provides users with a purely virtual experience

  d) Can't be experienced with a headset

On-Demand Session 2: "Chatbots and new means of visualizing them"

(1 hour)

Talking with a chatbot

Showing some examples of existing chatbots and what they do/say.

Exercise 1: Ask a chatbot about yourself.

Comparing answers from chatbots

What different chatbots are out there and how do they differ from eachother? LLM's

Exercise 2: Ask the same question as in Exercise 1 to a different chatbot and compare the results.

Intro to Cospaces VR/AR

How can VR/AR be a medium for digital media

Exercise 3: Differentiate some examples of VR, AR and MR

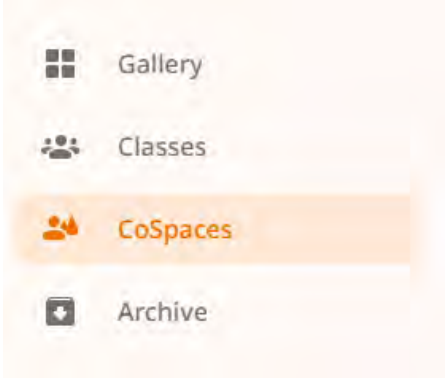
Programming your own VR/AR world

How does Cospaces work?

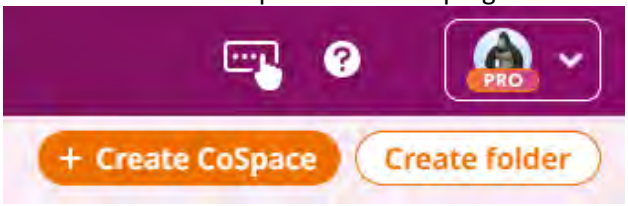
Exercise 4: Recreate the dialog with the chatbots in Cospaces.

Creating a new CoSpaces environment

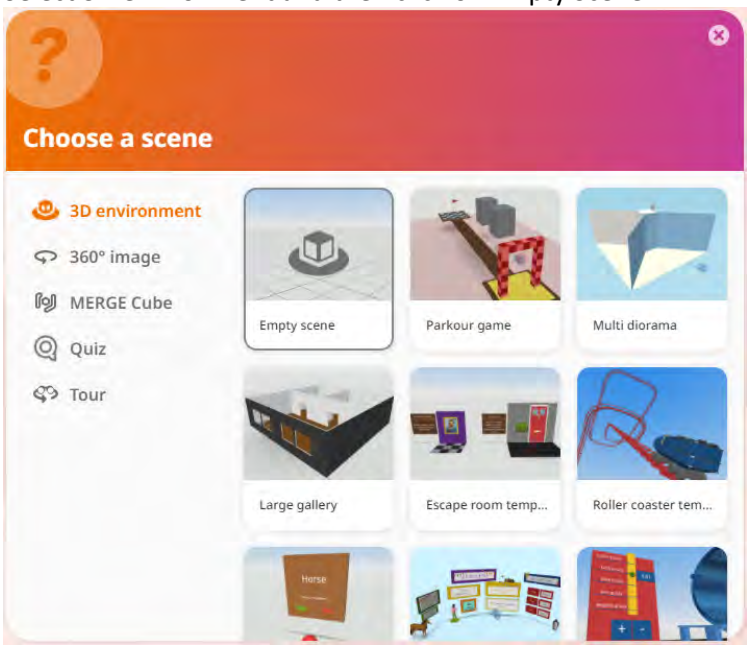
1. Create an account
2. Go to Spaces on the left hand side



3. Click on “+Create CoSpace” on the top right side of the screen



4. Select 3D environment and then click on Empty Scene

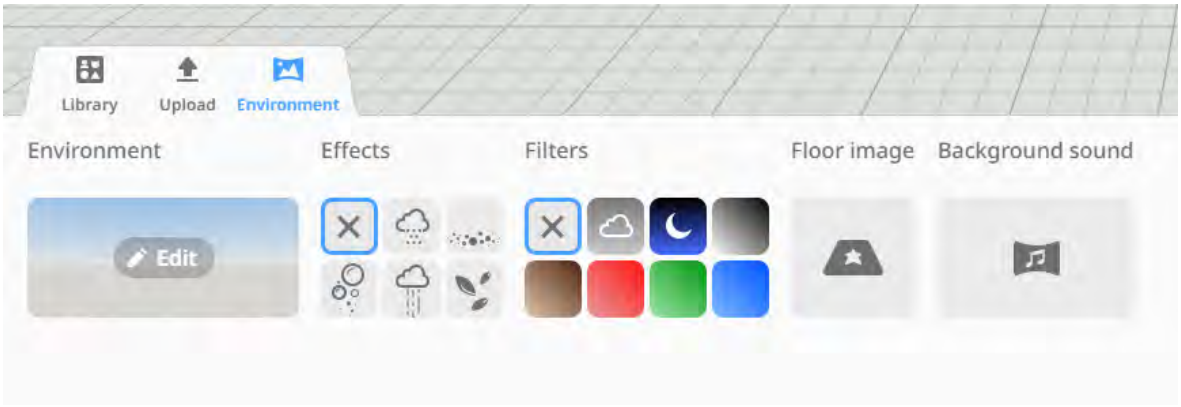


The CoSpaces Dashboard

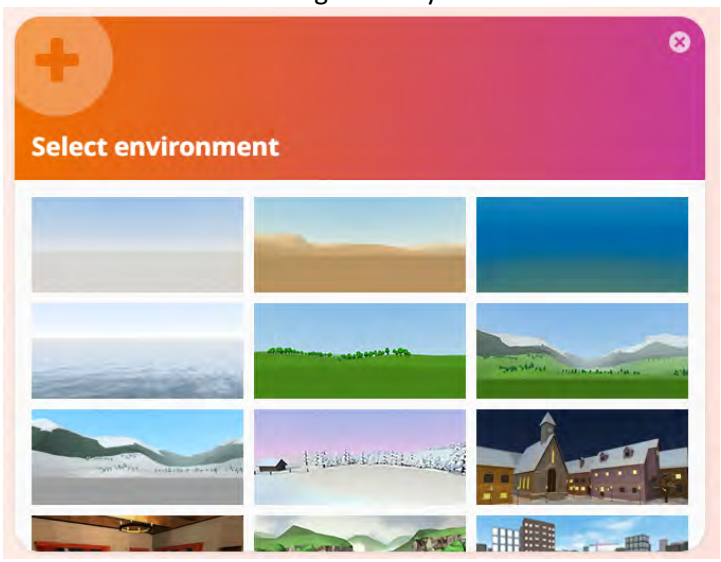
Once you’re in your 3D environment you will only see a camera and an empty scene.

Let’s start by adding a environment to our world.

1. Click on Environment in the bottom left corner
2. Next click on Edit under Environment

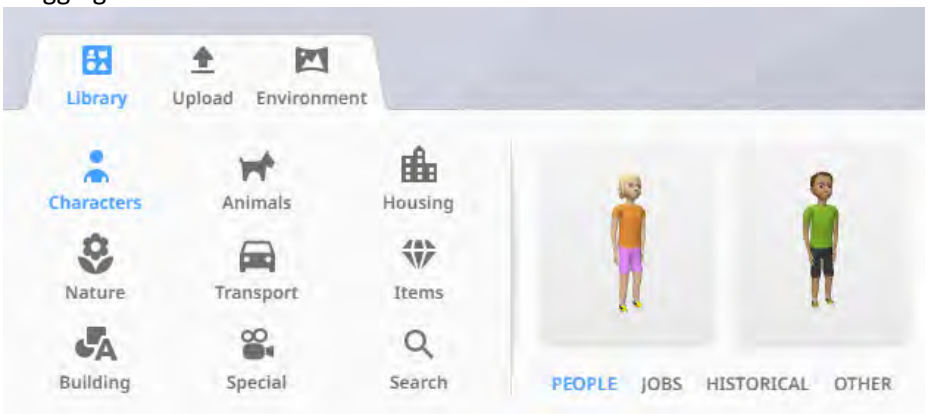


3. Choose an environment that you like that suits your world. This will create a background that surrounds the working area of your 3D world



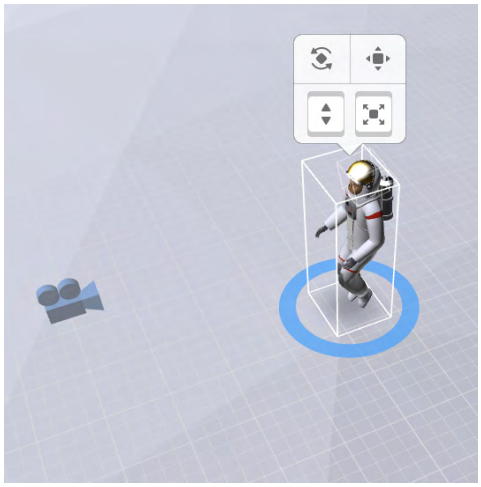
Fill in your world

1. You can add models and 3D elements from the library to your world by clicking and dragging them in.

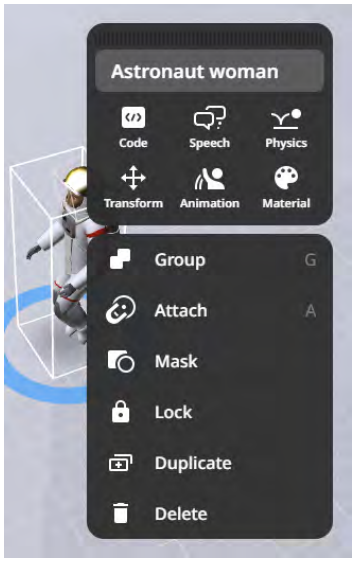


2. Once in your world you can edit the model using the 4 button options:
   - You can rotate the model
   - You can move the model

- You can lift the model
- You can scale the model



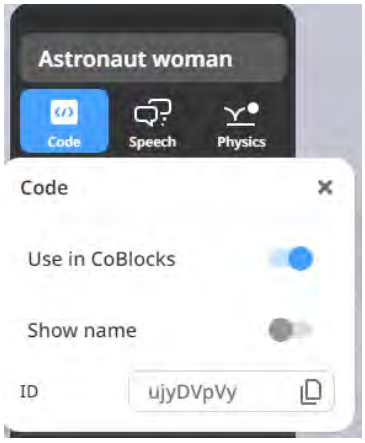
3. By right-clicking on your model you get a couple more options:



- Animate: choose a pre-made animation that your object plays continuously.
- Code: Allows the object to be used in code
- Speech: Give your object speech/thought bubbles
- Physics: Choose how your object interacts with it's environment
- Transform: Move, rotate or scale your object
- Material: Choose the color and texture of your object
- Group: Make a composition of different object that act as one.
- Attach: Attach part of an object to another
- Mask: Subtract an object from an other
- Lock: Locks all editing features of that object
- Duplicate: Immediately makes a copy
- Delete: removes the object

Animate your world through code

1. To code models make sure to check the 'Use in CoBlocks' checkbox for every model you wish to animate through coding



Live Workshop: "Empowering Educators: Navigating Synthetic Media in the Classroom"

(2 hours)

Gamifying AI: Building Chatbots for CoSpaces Edu

Consists of:

- Introduction to Chatbots and their Relevance (15 mins)

What are chatbots and how do they function?

Importance and potential of chatbots and how to integrate in virtual reality

- Design Thinking for Chatbot Creation (15 mins)

User-centered design: Identifying the VR world's user needs and how a chatbot can address those

Crafting the personality of the chatbot: How will the characters in the VR world communicate? What's their backstory? What kind of tone or language will they use?

- CoSpaces Edu Integration (30 mins)

Demonstration: Showing a live example of a chatbot integrated into a CoSpaces Edu world

Walkthrough of user interactions

- Break (10 mins)

- Chatbot creation (30 mins)

Creation of the chatbot in Cospaces

Testing the interactions

Last improvements

- Showcasing results (20 mins)

Exchange of results and interactions with different chatbots

Tools and tutorials from the program (links and videos)

Synthetic AI (ChatGPT)

ChatGPT, which stands for Chat Generative Pre-trained Transformer, is a large language model-based chatbot developed by OpenAI, which enables users to refine and steer a conversation towards a desired length, format, style, level of detail, and language.

Chatbots (Chatterbot)

ChatterBot is a Python library that makes it easy to generate automated responses to a user's input. ChatterBot uses a selection of machine learning algorithms to produce different types of responses. This makes it easy for developers to create chat bots and automate conversations with users. For more details about the ideas and concepts behind ChatterBot see the process flow diagram.

VR/AR (Cospaces)

Virtual & augmented reality is a format that can visualise media in an immersive way. **CoSpaces** is a web-based program that can be used for educational purposes where teachers and students can collaborate on digital 3D-environments and learn to animate models through simple coding exercises.

Other resources (links)

LLM vizualisation (free)

Through this storytelling website, users can get an understanding of how deep neural networks analyse sentences and use it to formulate synthetic answers.

GPTZero (free)

GPTZero brings transparency to humans navigating a world filled with AI content. GPTZero is the gold standard in AI detection, trained to detect ChatGPT, GPT4, Bard, LLaMa, and other AI models.

DeepL (free)

Like most translation systems, DeepL Translator translates texts using artificial neural networks. These networks are trained on many millions of translated texts.

Midjourney

Midjourney is an example of generative AI that can convert natural language prompts into high-quality images. It's only one of many machine learning-based image generators that have emerged of late. It relies on two relatively new machine learning technologies, namely large language models and diffusion models. You may already be familiar with the former if you've used generative AI chatbots like ChatGPT. A large language model first helps Midjourney understand the meaning of the words you type into your prompts. This is then converted into what is known as a vector, which you can imagine as a numerical version of your prompt. Finally, this vector helps guide another complex process known as diffusion.

D-ID

The Creative Reality™ Studio by D-ID offers you the most robust set of generative AI tools to produce stunning videos featuring talking avatars. Combining the powers of D-ID's deep-learning face animation technology, GPT-3 text generation, and text-to-image capabilities, the self-service studio is the essential platform for those seeking to create amazing and cutting-edge videos.

Other applications (links & videos)

Creative/artistic applications

Data visualizations

Entangled Landscape by Studio Above&Below

Entangled Landscape is a meditative mixed reality experience augmenting invisible collaborative life of soil in the form of a digital sculpture. The artwork focuses on bringing visibility and awareness to the networks and exchange of resources occurring in soil at a microscopic level, investigating mutualistic and collaborative behaviour across different industries, natures and cultures.

Case studies

Glossary

1. **Algorithm:** A set of rules or instructions used by computers to perform specific tasks, such as data analysis or content recommendation.

2. **Bias:** Systematic and unfair preferences or prejudices that can be present in data, algorithms, or media content, leading to skewed perspectives or outcomes.

3. **Confirmation Bias:** The tendency to seek, interpret, and remember information that confirms one's existing beliefs while ignoring or discounting contradictory information.

4. **Data:** Raw facts and statistics collected and used for analysis or reference in various contexts.

5. **Digital Literacy:** The ability to find, evaluate, use, and create digital information and media content effectively and responsibly.

6. **Fake News:** False or misleading information presented as news, often spread through social media and other online platforms.

7. **Filter Bubble:** The idea that internet algorithms can create personalized online environments by showing users content that aligns with their existing preferences, potentially limiting exposure to diverse viewpoints.

8. **Hacking:** Unauthorized access, manipulation, or damage to computer systems, networks, or data.

9. **Information Literacy:** The ability to locate, evaluate, and effectively use information from various sources, especially in academic or research contexts.

10. **Media Literacy:** The ability to critically analyze, evaluate, and understand media messages, including those from television, radio, print, and digital sources.

11. **Misinformation:** False or inaccurate information spread without malicious intent.

12. **Open Data:** Data that is freely available for anyone to use, reuse, and redistribute, often with the goal of promoting transparency and accountability.

13. **Privacy:** The right to control one's personal information and data, including how it is collected, stored, and shared.

14. **Social Media:** Online platforms that enable users to create, share, and interact with content and other users.

15. **Stereotype:** A widely held but oversimplified and generalized belief or idea about a particular group of people or things.

16. **Transparency:** The practice of making processes, decisions, and information clear and easily accessible to the public.

17. **User-generated Content (UGC):** Content created and shared by users on online platforms, such as social media, forums, and wikis.

18. **Virality:** The rapid spread of content, often through social media, due to its popularity and shareability.

19. **Clickbait:** Sensational or misleading headlines and content designed to attract clicks and views.

20. **Fact-checking:** The process of verifying the accuracy and credibility of information and claims, often performed by journalists and researchers.

21. **Data Visualization:** The use of charts, graphs, and other visual representations to present data in a more understandable and meaningful way.

22. **Ethical Journalism:** Adherence to ethical principles and standards in news reporting, including accuracy, fairness, and objectivity.

23. **Digital Footprint:** The trail of digital information and data left behind by a person's online activities.

24. **Deepfake:** Artificially generated media, often using deep learning techniques, to create realistic but fake audio, video, or images.

25. **Net Neutrality:** The principle that internet service providers should treat all data on the internet equally, without discrimination or preference for specific content or services.

26. **Chatbots:** a computer program designed to simulate conversation with human users, especially over the internet.

27. **Large Language Model (LLM):** A large language model (LLM) is a type of artificial intelligence (AI) algorithm that uses deep learning techniques and massively large data sets to understand, summarize, generate and predict new content. The term generative AI also is closely connected with

LLMs, which are, in fact, a type of generative AI that has been specifically architected to help generate text-based content.

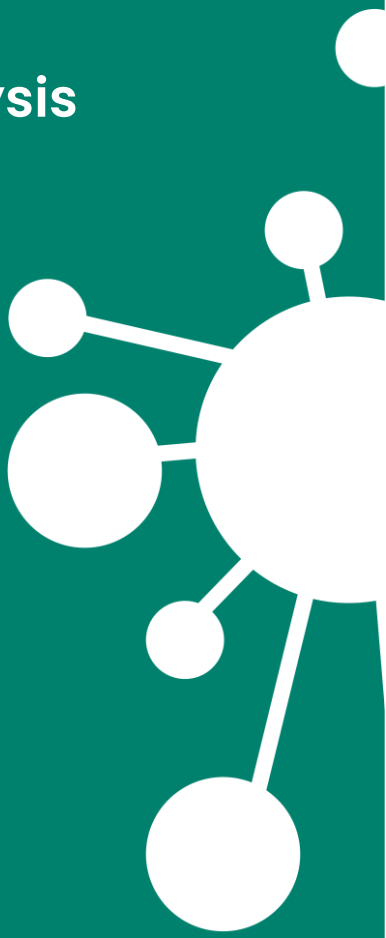
28. ** Artificial Inteligence (AI):** An area of study concerned with making computers copy intelligent human behavior

QR code to telegram group for teachers

(for feedback)

Course 1

[A Data World: Synthetic Media analysis and production]



FREEYOU NEXT

Co-funded by the European Union

MODULE 1.1
DATA: Living in a World Built on Data

Course Introduction:

The ecosystem of over-information in which we are immersed requires a great ability to discern accurate data from distorted or misleading ones. Today, more than ever, data is of unprecedented importance, which is why even data (sometimes) lies.

Knowing how to verify the reliability of a data collection is a fundamental skill for interpreting the complexity of the world around us.

In this course, we will see together:

✓ How to distinguish accurate data from unverified or manipulated data.

✓ Strategies for identifying biases and prejudices in data.

✓ How to create ethically and scientifically reliable data collections.

UNITY 1 - If data says so...

TITLE: If data says so...

What it is about**: Our world is written in the form of data, whether reliable or manipulated. But how do we verify data? What do we have to watch out for when it comes to interpreting data?**

QUIZ

A. Which data collection is most likely to be unreliable? (choose the most complete answer)
   A data collection created with only qualitative data
B. A data collection created by a third party whose interests are the subject of the survey
C. A data collection created with quantitative data only

Explanation: A data collection whose source pursues a partisan interest is likely to be unreliable. In this sense, one thinks of the 'data' published by the big tobacco corporations in the post-war period that 'proved' that smoking did not cause any disease.

2) Can data help us overcome our prejudices? (choose the correct answer). Choose only ONE best answer.

A. No, data are only useful for science
B. Yes, data are always true and can guide us in our choices
C. Yes, data can help us change our perception which can sometimes be fallacious

Explanation: The correct answer is 'C'. Our perception of some phenomena is imperfect and fallacious and data can help us overcome this flaw.

UNITY 2 – WHY DATA

What it is about: the value of data is structurally linked to the source from which it comes. In this lesson, we will look at how to verify sources and how sources can influence the narrative that data make of our world.

QUIZ

1) Which of these sources is NOT an official source? (choose the correct answer). Choose only ONE best answer.

A. Istat
B. Melarossa
C. Eurostat

Explanation: Melarossa is an application that collects data from its users so it cannot be considered an official source

2) Which of these sites is an aggregator? Choose only ONE best answer.

A. World Bank
B. OMS
C. WikiData

Explanation: WikiData is an aggregator. An aggregator is defined as those entities that collect a large amount of data from different sources.

Unit 3 – the TAG method

What is it about: How does the TAG method work for data management?

Now it's your turn

QUESTION 1 OF 1

What does the acronym TAG stand for? (choose the most complete answer). Choose only THE best answer (one).

A. Find the source, Analyze the content, and Look around.
B. Find the source, Analyze the content, and Manage the data
C. Find the source, Associate the data, and Look around

CONFIRM: The TAG method invites us to Find the source, Analyze the content, and Look around. This method of analysis allows us not to be fooled by news that is only seemingly truthful.

Unit 4 - Case study 1 - The 35 euros for the reception of refugees

Video duration: 06:35
Tools used: applying the TAG method
What it's about: In this lesson we look together at an example of how we can apply the TAG method to a news story.
Slide: download here

Now it's your turn

QUESTION 1 OF 1

Why can it be useful to research the sources used to write an article? (choose the most complete answer). Choose only THE best answer (one).

A. Because the person who wrote it may have misunderstood the data
B. Because the newspaper that reported the article may have a "biased" editorial line
C. Because the newspaper reporting the news may have chosen to report biased news related to the data so as to create "scandal" in public opinion

CONFIRM: Seeking out the sources from which the data used in an article were extracted is a good practice to use when we believe we are faced with the instrumentalization of a piece of data.

Module 1.2

Synthetic Media – Crafting & Deciphering Synthetic Imagery

Course Introduction

Title: What will we talk about in this course?

Let's kick off the journey into Synthetic Media!

Synthetic media is transforming how we create and consume digital content. This technology enables the generation of images, videos, and audio in an entirely new way, opening the doors to unprecedented forms of creativity and communication.

However, with this innovation comes the need for a profound understanding of how these synthetic media operate and the ethical implications they carry. The data used to train the models deeply influences the outcomes, prompting a critical reflection on their reliability and, more importantly, the value of what they produce.

In this course, we will explore together:

✓ How to identify whether content is artificially generated

✓ The artistic value of synthetic works

✓ We will put our new skills into practice, using tools to create synthetic media

2. Course Guide

We have prepared a guide with all the relevant information for this training program: dates, links, and support addresses.

UNITY 1 What are synthetic media

Title: What are synthetic media

VIDEO

Video duration: 6:13

What's it about: By now, synthetic media are everywhere. From news sites to advertisements, artificially generated media have made their way into our everyday lives. In this lecture we will see:

- What is meant by synthetic media
- How media have evolved over time
- How many kinds of artificial content exist today

Now it's your turn - QUIZ

Question 1 : Synthetic media are...

A. **Digital content created by AI**
B. Digital content created in a short timeframe
C. AI-generated information videos

Explanation: Synthetic media (video, audio, images and text) are media generated by artificial intelligence (AI) that manages all (or part) of the creative process.

Question 2 : Who is Lil Miquela? (choose the correct answer). Choose only ONE best answer.

A. An influencer who talks about the creative potential of AI
B. An influencer, dealing with synthetic media in the field of music
C. A project, it is a virtual avatar created by a team of professionals in special effects.

UNITY 2 - FROM TEXT TO...

Title: From text to...

What it's about: What does it mean when we talk about artificial intelligence "text to..."? What are the stages that allow transforming a description into an image? Let's discover it together!

QUIZ:

"What is latent space? Choose only ONE best answer.

A. The phase in which you think about the prompt to insert to obtain the desired image.
B. A bridge between textual descriptions and visual images.

Explanation: Latent space is the place where the representation is generated following the training phase of the AI model. This representation is a kind of summary of essential features of both text and images. In this sense, we can think of latent space as a bridge between textual descriptions and visual images that allows the model to generalize from text to image.

UNITY 3 - TOOLS FOR CREATING SYNTHETIC MEDIA

Title: Tools for creating synthetic media

What it's about: what tools make up the AI ecosystem to date? Let's look together at some examples

QUIZ:

To generate an image artificially, you should use... (Choose only ONE best answer)

A. Dream Studio by Stable Diffusion
B. Google Bard
C. ChatGPT

Explanation: To generate a synthetic image from a textual prompt, the most suitable tool is certainly Dream Studio from the open source tool Stable Diffusion.

UNITY 4 - USES AND ABUSES

Uses and Abuses

What it's about: How does creativity evolve with the advent of AI? In the era of ultimate reproducibility, we explore the transformation of visual arts and the crisis of the concept of artistic originality through technology.

Quiz

1) Who were the Belamy? Choose only ONE best answer.

A. An imaginary family within a novel generated by Open AI
B. An 18th century French family whose portraits were artificially generated and sold at auction
C. An imaginary family invented by the French collective Obvious to create a collection of AI-generated portraits.

Explanation: The correct answer is 'C'
The Belamy family is an imaginary family created by French collective Obvious to create a collection of AI-generated portraits. The painting depicting Edmond de Belamy was sold at auction by Christie's for an estimated $432,500 in 2018.

2) Is generative artificial intelligence being used to polarize public opinion? Choose only ONE best answer.

A. Yes, the abuse of AI is sadly common. Especially when conflict breaks out, the use of AI tools for propaganda purposes is commonplace.
B. No, the use of AI is strictly regulated when it comes to politics and public opinion.

Explanation: Unfortunately, the misuse of AI tools for propaganda purposes is very frequent. Today, despite European directives, it is very

difficult to limit the spread of false content generated to polarise public opinion.

UNITY 5 - How to analyze AI-generated media

What it's about: artificial intelligence tools are becoming more refined every day, yet AI still leaves traces. In this lesson, we learn what to look at to see if we are dealing with synthetic media.

Quiz:
1) To spot a synthetic media, what is most useful to check? (Choose the most complete answer). Choose only ONE best answer.

A. Cartoon style details and glassy eyes
B. Facial details, movements, background elements and possible glitches
C. Hand and background distortions

Explanation: The correct answer is 'B'
If we are uncertain about the nature of an image, it is useful to first observe these elements: facial details, movements, background elements and possible glitches.

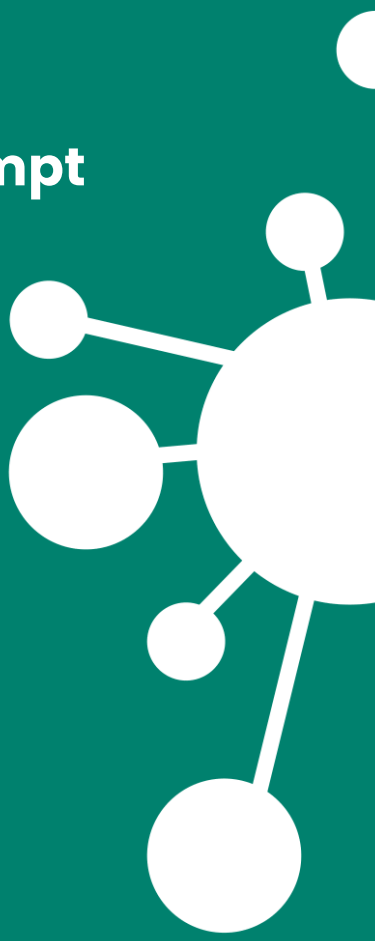
2) Which of these tools are capable of assessing the likelihood of an image being artificially generated? Choose only ONE best answer.

A. Stable Attribution, Deepware and InVID
B. Google, InVID and Slack
C. Google Bard, InVID and Deepware

Explanation: The correct answer is 'A'
The most suitable tools for assessing the authenticity or otherwise of an image are: Stable Attribution, Deepware and InVID. Beware however, 'AI Detectors' are still imprecise tools and can still lead us into error.

Course 2

[Chatbots in VR: The Wonders Of Prompt Engineering]



FREEYOU NEXT

Co-funded by the European Union

MODULE 2.1
Chatbots and new means of visualizing them

Course Introduction:

Have you ever seen a chat window pop-up that keeps asking you the same question every time you revisit a certain website? Odds are that's not a real person on the other end but a chatbot. Chatbots, by definition are computer programs designed to simulate conversation with human users. They can be used to communicate with people, answer common questions, and perform specific tasks they were programmed for. They gather and process information while interacting with the user and increase the level of personalization.

In this course, we will see together:

✓ How do chatbots work.

✓ How to make one yourself.

✓ How to visualize them in new innovative formats.

UNIT 1 - What do the bots say...

TITLE: What do the bots say...

What it is about: More and more people interact with nonhuman algorithms everyday. What are these programs used for and how do they work? Can they really simulate real conversations?

QUIZ

1. What is a chatbot primarily designed for?

A. To connect you with people online to chat with
B. To interact with users through text or voice
C. For automations

Explanation: Chatbots, by definition are computer programs designed to simulate conversation with human users. They can be used to communicate with people, answer common questions, and perform specific tasks they were programmed for. They gather and process

information while interacting with the user and increase the level of personalization.

2) When training a chatbot, which of the following factors is crucial for reducing bias in its responses? (choose the correct answer). Choose only ONE best answer.

A. Utilizing a diverse dataset.
B. Increasing the model's processing speed.
C. Incorporating complex language patterns.

Explanation: The correct answer is 'A' because incorporating a diverse dataset helps mitigate bias by exposing the model to a wide range of perspectives and language nuances, reducing the likelihood of skewed or discriminatory responses.

UNIT 2 - How they talk

What it is about: Natural Language Processing (NLP) is a branch of artificial intelligence that focuses on enabling computers to understand, interpret, and generate human language, allowing machines to interact with users in a more natural and meaningful way.

QUIZ

1) What is the primary goal of Natural Language Processing (NLP)?

A. Enhancing computer processing speed.
B. Enabling computers to understand, interpret, and generate human language.
C. Improving hardware performance for language-related tasks.

Explanation:B is the most correct answer because it accurately captures the primary goal of Natural Language Processing (NLP). NLP is focused on empowering computers to comprehend and work with human language, allowing them to process, interpret, and generate text in a way that facilitates meaningful interaction with users.

2) Which of the following industries has prominently adopted chatbots and Natural Language Processing (NLP) to enhance customer interactions and streamline processes? Choose only ONE best answer.

A. Agriculture
B. Healthcare

C. Textile Manufacturing

Explanation: In the healthcare industry, chatbots and NLP technologies are widely used to facilitate patient engagement, appointment scheduling, and symptom analysis.

Unit 3 – The next word in a sentence

What is it about: In this section we'll device into how a chatbot works. An oversimplified explanation of a chatbot is a program that can predict the next word in a sentence and formulate it in a given context. They do this with the help of Semantic Role Labeling (SRL) in NLP.

Now it's your turn

QUESTION 1 OF 1

In NLP, what does Semantic Role Labeling (SRL) aim to identify? Choose only THE best answer (one).

A. The sentiment of a text.
B. The relationships between words and their roles in a sentence.
C. The grammatical structure of a paragraph.

CONFIRM: While option c refers to a relevant aspect of NLP (word frequency analysis), it doesn't specifically capture the primary goal of Semantic Role Labeling, which is to identify the relationships between words and their roles in a sentence.

Module 2.2

Digital Medias – New Realities

Course Introduction

The advent of Virtual Reality (VR), Augmented Reality (AR), and Mixed Reality (MR) represents a transformative era in technology, altering how we engage with the digital realm. VR immerses users in simulated environments, AR overlays digital information onto the real world, and MR seamlessly combines elements of both. Beyond entertainment, these technologies find applications in education, healthcare, and various industries, promising to redefine and enhance our daily experiences in a digitally interconnected world.

In this course, we will explore together:

✓ The difference between VR / AR / MR

✓ The artistic value of these digital media

✓ We will put our new skills into practice, using tools to create immersive media

1. Course Guide

We have prepared a guide with all the relevant information for this training program: dates, links, and support addresses.

UNIT 1 Fully immersed in VR

What's it about: Virtual Reality (VR) is a computer-generated simulation that immerses users in a synthetic, interactive environment, providing a sense of presence and engagement. In this lecture we will see:

- What does it mean to be fully immersed
- How media have evolved over time
- How many kinds of artificial content exist today

Now it's your turn - QUIZ

Question 1: What distinguishes VR from traditional 3D technology?

A. The use of head-mounted displays.
B. Integration of surround sound systems.
C. Enhanced color saturation in visuals.

Explanation: Virtual Reality (VR) is distinguished from traditional 3D technology by the use of head-mounted displays, which immerse users in a fully immersive, interactive environment rather than relying on flat screens for visual representation.

Question 2 : Which component is crucial for tracking the user's movement in VR?

A. Haptic feedback gloves.
B. External cameras or sensors.
C. High-resolution display screens.

Explanation: because external cameras or sensors are crucial for tracking the user's movement in Virtual Reality (VR), enabling the system to monitor and respond to the user's position in real-time, contributing to a more immersive and interactive experience.

UNIT 2 - Exploring the Augmented Reality

What it's about: Augmented Reality (AR) is a technology that overlays digital information, such as images, videos, or data, onto the real-world environment, enhancing users' perception and interaction with their surroundings. Unlike Virtual Reality (VR), AR does not immerse users in a completely computer-generated environment but rather enhances the existing environment by integrating digital elements.

QUIZ:

What distinguishes Augmented Reality (AR) from Virtual Reality (VR)? Choose only ONE best answer.

A. AR immerses users in entirely computer-generated environments.
B. AR overlays digital content onto the real-world environment.
C. AR requires the use of haptic feedback gloves for interaction.

Explanation: Augmented Reality enhances the real-world view by adding digital elements, providing an enriched and context-aware user experience.

Which technology is commonly used for markerless tracking in AR applications? Choose only ONE best answer.

A. GPS (Global Positioning System).
B. QR codes.
C. Object recognition and computer vision.

Explanation: Markerless tracking in AR applications often involves object recognition and computer vision technologies to identify and track real-world objects.

UNIT 3 - Mixing in MR

What it's about: Mixed Reality (MR) represents a cutting-edge technology that seamlessly blends the physical and digital worlds, creating a unified and interactive environment where virtual elements coexist with the real world. Unlike Virtual Reality (VR) or Augmented Reality (AR) in isolation, MR integrates both, allowing users to engage with and manipulate digital content while interacting with their physical surroundings. This transformative technology opens new avenues for immersive experiences, interactive simulations, and innovative applications across various industries, promising a future where the boundaries between the real and virtual are dynamically redefined.

QUIZ:
What distinguishes Mixed Reality (MR) from Virtual Reality (VR) and Augmented Reality (AR)? (Choose only ONE best answer)

A. MR only uses computer-generated simulations.
B. MR seamlessly integrates digital and physical elements in the user's environment.
C. MR exclusively relies on augmented visuals.

Explanation: Mixed Reality (MR) stands out by seamlessly integrating digital and physical elements, allowing users to interact with computer-generated content in the real-world environment, distinguishing it from both Virtual Reality (VR) and Augmented Reality (AR).

In the context of Mixed Reality (MR), what is the term used to describe the digital objects anchored to the real-world environment? (Choose only ONE best answer)

A. Virtual overlays.
B. Augmented elements.
C. Holographic content.

Explanation: The term "holographic content" is used to describe digital objects anchored to the real-world environment, emphasizing the immersive and interactive nature of the digital overlays.

How does Mixed Reality (MR) differ from Augmented Reality (AR) regarding the interaction with digital objects?

A. MR allows users to only view but not interact with digital objects.
B. MR enables users to interact and manipulate digital objects in the real-world space.
C. AR and MR have similar interaction capabilities.

Explanation: Unlike Augmented Reality (AR), Mixed Reality (MR) empowers users to not only view but also interact and manipulate digital objects within the real-world surroundings, providing a more dynamic and engaging experience.

VIDEO FREEYOU NEXT:

COURSE 1
MODULO 1.1:
https://youtu.be/PNfHbAm1cQo?si=5qOfzmfdaoqGUCI-

MODULO 1.2:
https://youtu.be/tB3i9u9o91M?si=ndn8ESghvx28fNDj

COURSE 2
MODULO 2.1

MODULO 2.2
https://drive.google.com/drive/folders/189pF1XeXNTPpTrDBTF5yarHe0WO-R-mx

FAKE
RISK
ESCAPING
THROUGH
THE EMPOWER-
MENT
OF YOUTH
NEXT

Living in a World Built on Data

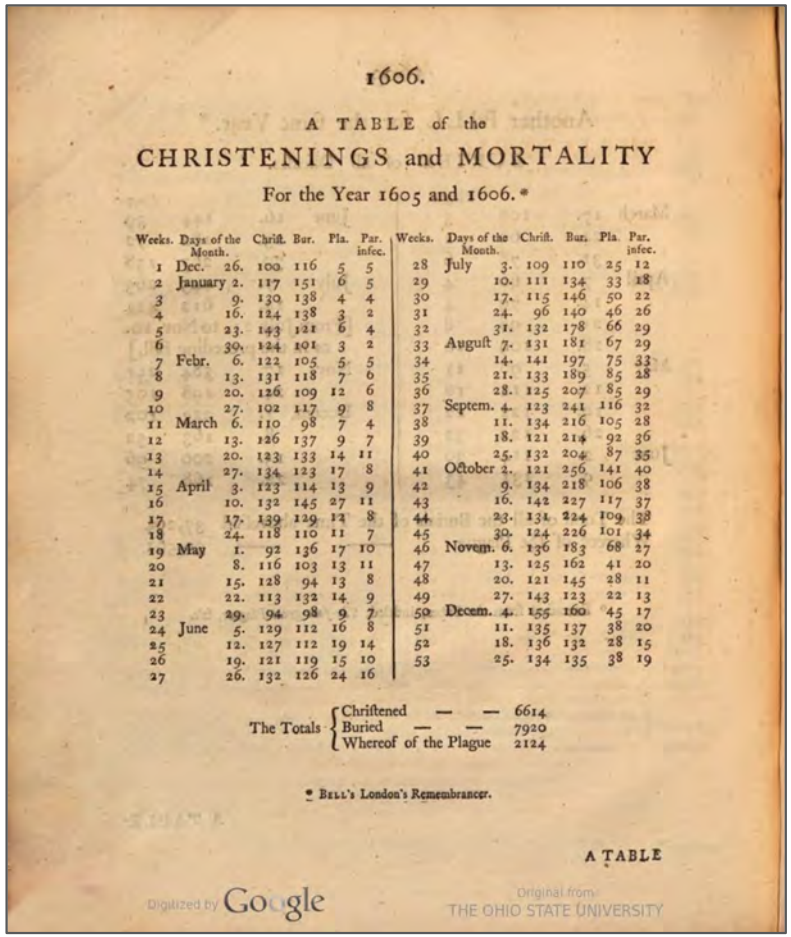
Co-funded by
the European Union

PART 1

A brief history of data-collection

DATA HAVE BEEN COLLECTED SINCE... FOREVER

Data have always been used to give humans a more precise idea of complex phenomena.



1606.

A TABLE of the

CHRISTENINGS and MORTALITY

For the Year 1605 and 1606.*

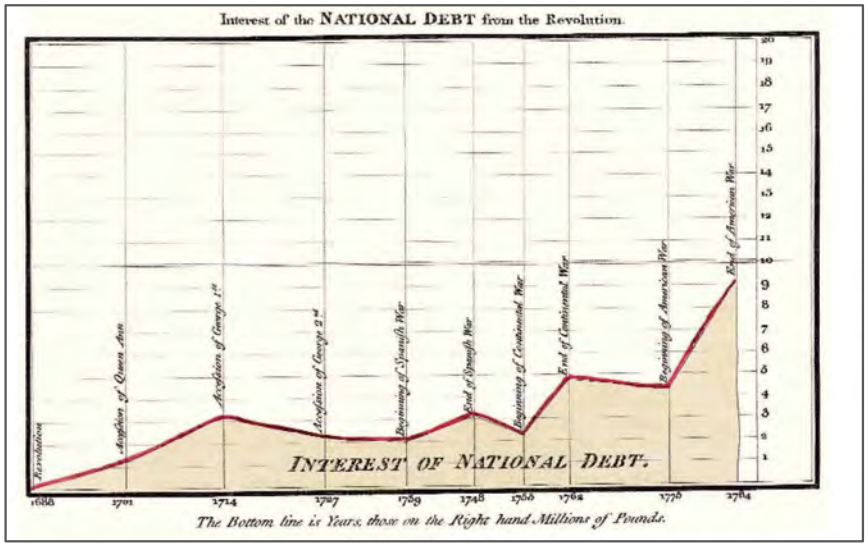
Weeks.	Days of the Month.	Christ.	Bur.	Pla.	Par. infec.
1	Dec. 26.	100	116	5	5
2	January 2.	117	151	6	5
3	9.	130	138	4	4
4	16.	124	138	3	2
5	23.	143	121	6	4
6	30.	124	101	3	2
7	Febr. 6.	122	105	5	5
8	13.	131	118	7	6
9	20.	126	109	12	6
10	27.	102	117	9	8
11	March 6.	110	98	7	4
12	13.	126	137	9	7
13	20.	123	133	14	11
14	27.	134	123	17	8
15	April 3.	123	114	13	9
16	10.	132	145	27	11
17	17.	139	129	12	8
18	24.	118	110	11	7
19	May 1.	92	136	17	10
20	8.	116	103	13	11
21	15.	128	94	13	8
22	22.	113	132	14	9
23	29.	94	98	9	7
24	June 5.	129	112	16	8
25	12.	127	112	19	14
26	19.	121	119	15	10
27	26.	132	126	24	16

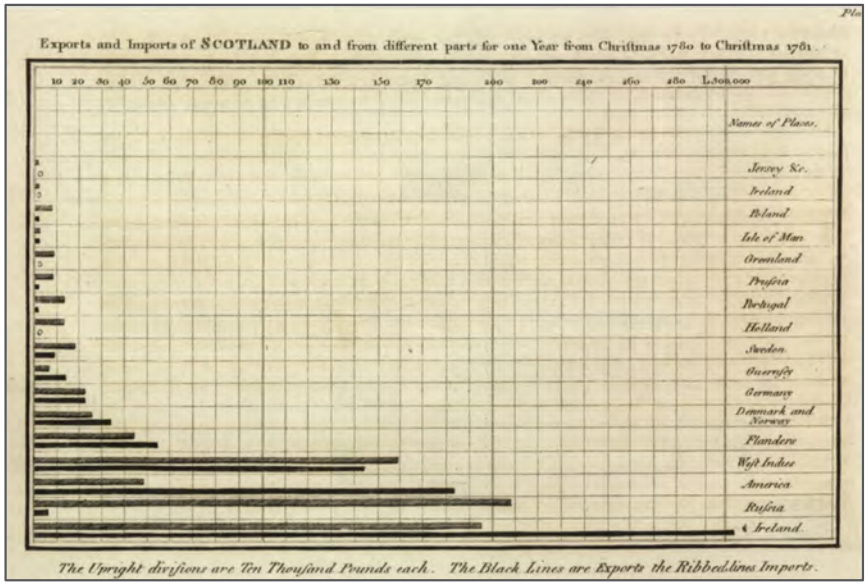
Weeks.	Days of the Month.	Christ.	Bur.	Pla.	Par. infec.
28	July 3.	109	110	25	12
29	10.	111	134	33	18
30	17.	115	146	50	22
31	24.	96	140	46	26
32	31.	132	178	66	29
33	Auguſt 7.	131	181	67	29
34	14.	141	197	75	33
35	21.	133	189	85	28
36	28.	125	207	85	29
37	Septem. 4.	123	241	116	32
38	11.	134	216	105	28
39	18.	121	214	92	36
40	25.	132	204	87	35
41	October 2.	121	256	141	40
42	9.	134	218	106	38
43	16.	142	227	117	37
44	23.	131	224	109	38
45	30.	124	226	101	34
46	Novem. 6.	136	183	68	27
47	13.	125	162	41	20
48	20.	121	145	28	11
49	27.	143	123	22	13
50	Decem. 4.	155	160	45	17
51	11.	135	137	38	20
52	18.	136	132	28	15
53	25.	134	135	38	19

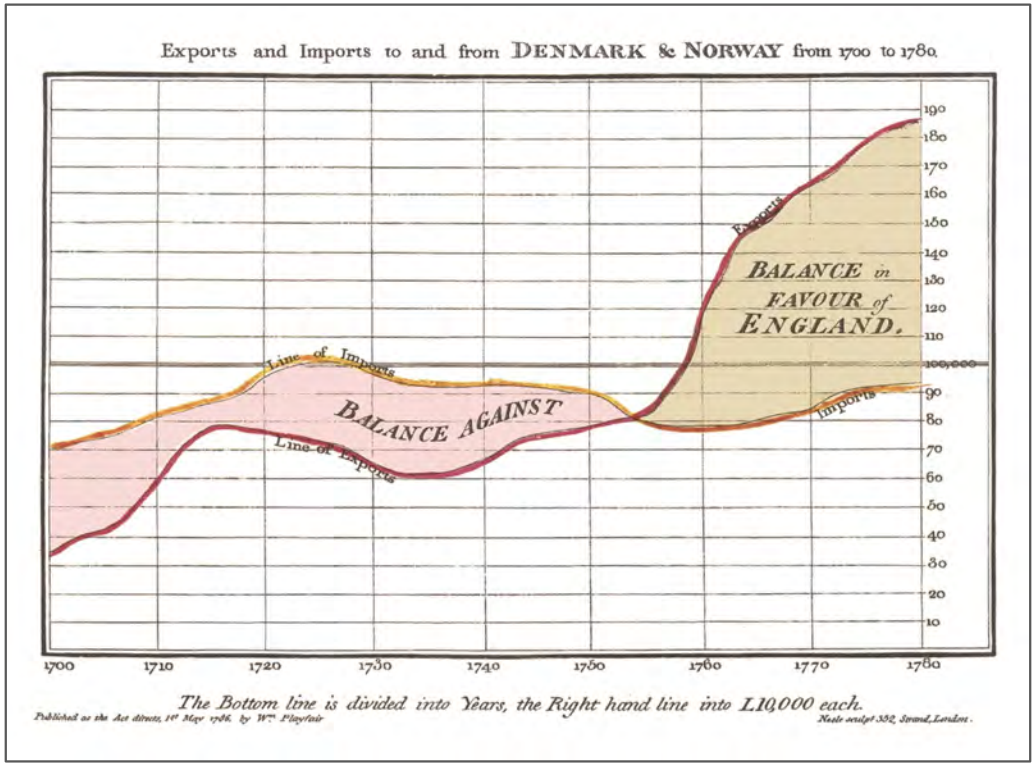
The Totals { Chriſtened — — 6614
Buried — — 7920
Whereof of the Plague 2124

* Bell's London's Remembrancer.

A TABLE


Interest of the NATIONAL DEBT from the Revolution.
Revolution
Accession of Queen Anne
Accession of George 1st
Accession of George 2nd
Beginning of Spanish War
End of Spanish War
Beginning of Continental War
End of Continental War
Beginning of American War
End of American War
INTEREST OF NATIONAL DEBT.
1688
1701
1714
1727
1739
1748
1756
1762
1776
1784
The Bottom line is Years, those on the Right hand Millions of Pounds.


Exports and Imports of SCOTLAND to and from different parts for one Year from Christmas 1780 to Christmas 1781.
Names of Places.
Jersey &c.
Ireland
Poland
Isle of Man
Greenland
Prussia
Portugal
Holland
Sweden
Guernsey
Germany
Denmark and Norway
Flanders
West Indies
America
Russia
Ireland
The Upright divisions are Ten Thousand Pounds each. The Black Lines are Exports the Ribbed lines Imports.


Exports and Imports to and from DENMARK & NORWAY from 1700 to 1780.
Exports
BALANCE in FAVOUR of ENGLAND.
Line of Imports
BALANCE AGAINST
Imports
Line of Exports
1700
1710
1720
1730
1740
1750
1760
1770
1780
The Bottom line is divided into Years, the Right hand line into £10,000 each.
Published as the Act directs, 1st May 1786. by Wm Playfair
Neele sculpt 352, Strand, London.

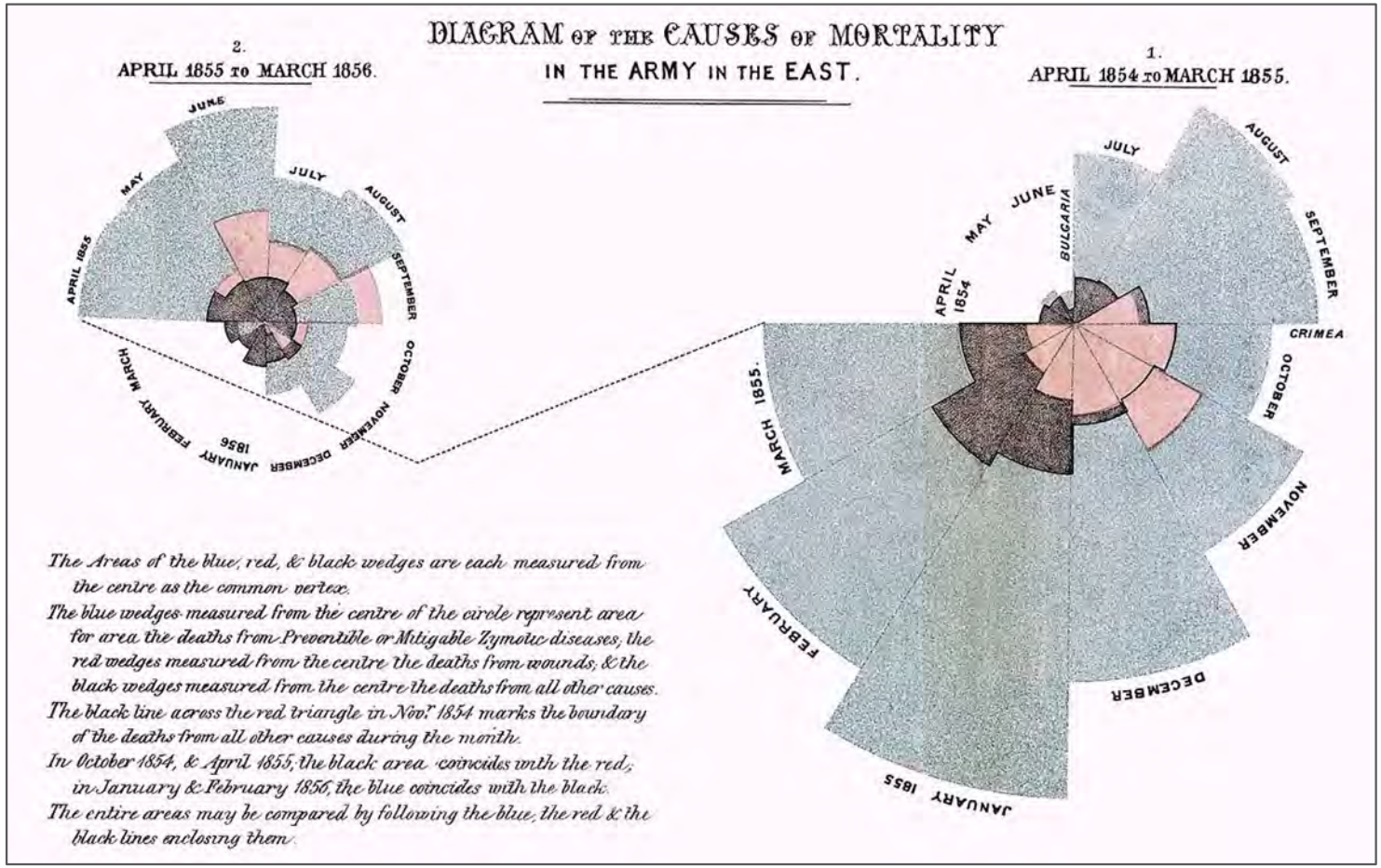


DIAGRAM OF THE CAUSES OF MORTALITY
IN THE ARMY IN THE EAST.
2.
APRIL 1855 TO MARCH 1856.
1.
APRIL 1854 TO MARCH 1855.
APRIL 1855
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
JANUARY 1856
FEBRUARY
MARCH
APRIL 1854
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
JANUARY 1855
FEBRUARY
MARCH 1855.
BULGARIA
CRIMEA
The Areas of the blue, red, & black wedges are each measured from the centre as the common vertex.
The blue wedges measured from the centre of the circle represent area for area the deaths from Preventible or Mitigable Zymotic diseases, the red wedges measured from the centre the deaths from wounds, & the black wedges measured from the centre the deaths from all other causes.
The black line across the red triangle in Nov.r 1854 marks the boundary of the deaths from all other causes during the month.
In October 1854, & April 1855, the black area coincides with the red;
in January & February 1856, the blue coincides with the black.
The entire areas may be compared by following the blue, the red & the black lines enclosing them.


CONTROL DATA | 6600

BEFORE THE INTERNET

18000 BC: Ishango bone
1663: John Graunt’s mortality rates
1786: William Playfair’s standard charts
1859: Florence Nightingale’s visualisations
1960: Supercomputers

BEFORE THE INTERNET

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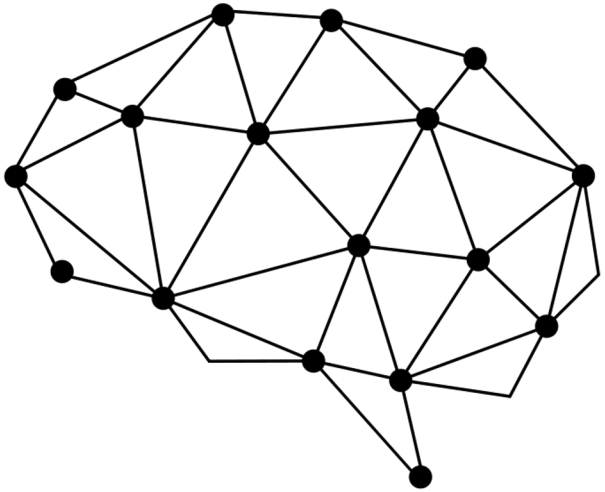
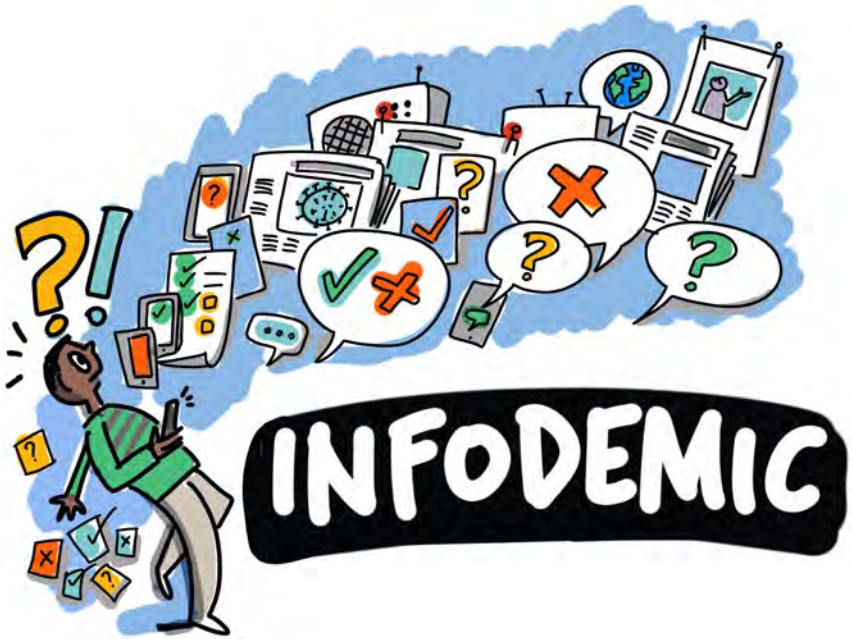
1960: Supercomputers

AFTER THE INTERNET


OPEN DATA
DATA
DATA
DATA



Cambridge Analytica


INFODEMIC


ChatGPT

BEFORE THE INTERNET

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AFTER THE INTERNET

BEFORE THE INTERNET

18000 BC: Ishango bone
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1786: William Playfair’s standard charts
1859: Florence Nightingale’s visualisations
1960: Supercomputers

AFTER THE INTERNET

2009: Open Data
2014: Self-tracking
2018: Cambridge Analytica
2020: Infodemic
2023: ChatGPT

PART 2

Diving into data

DATA HELP US UNDERSTAND THE WORLD WE LIVE IN

Data have always been used to give us a more precise idea of complex phenomena.

In the digital age, they are also increasingly used to give more reliability to information exchanges.

Source: Mona Chalabi

ÉCONOMIE • INFLATION

L'inflation a ralenti en 2023 : la hausse des prix s'est établie à 4,9 %, après 5,2 % en 2022

La hausse des prix de l'alimentation se poursuit mais à un rythme moindre, tandis que certains prix de l'énergie ont décru lors de l'année écoulée, détaille l'Insee vendredi.

Le Monde avec AFP

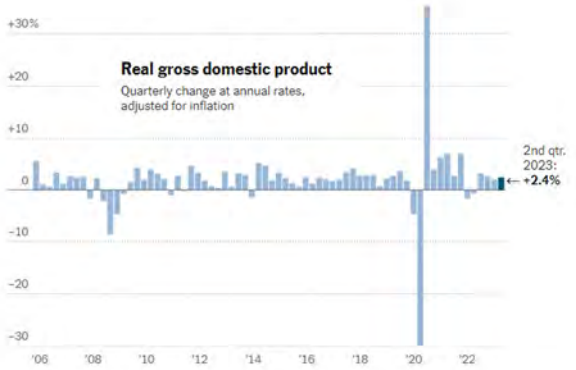
Publié aujourd'hui à 09h03, modifié à 09h52 · Lecture 2 min.

Ajouter à vos sélections

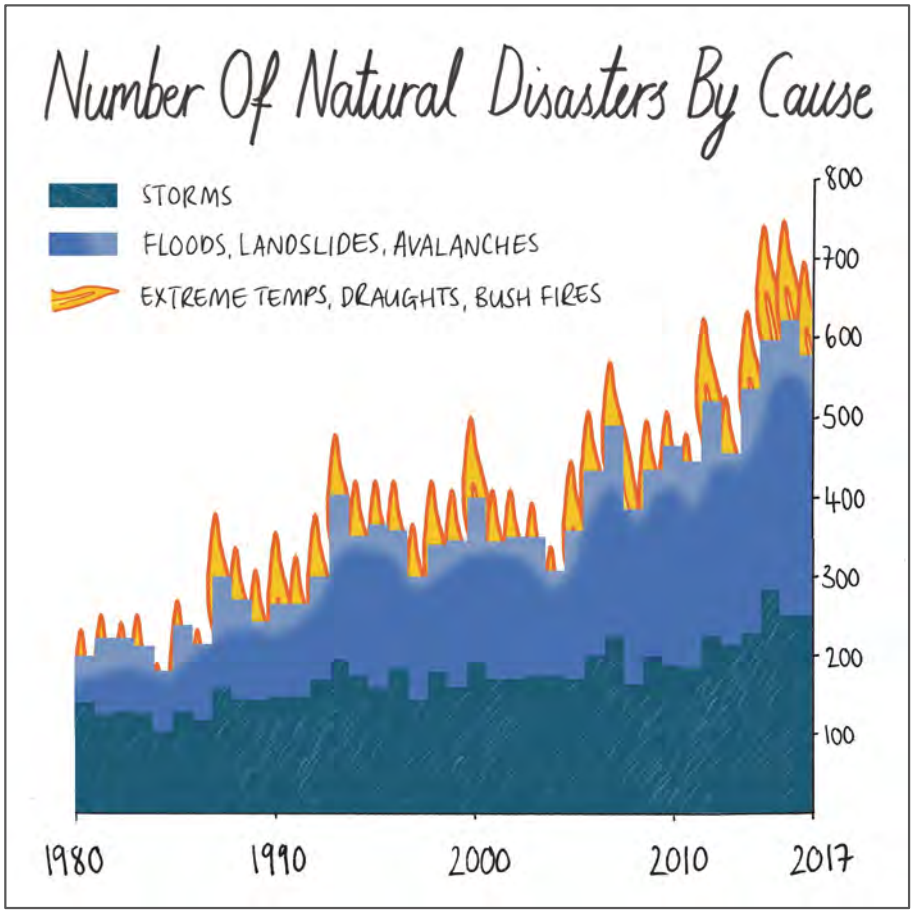
U.S. Economy Grew at 2.4% Rate in Second Quarter

The reading on gross domestic product was bolstered by consumer spending, showing that recession forecasts early in the year were premature, at least.

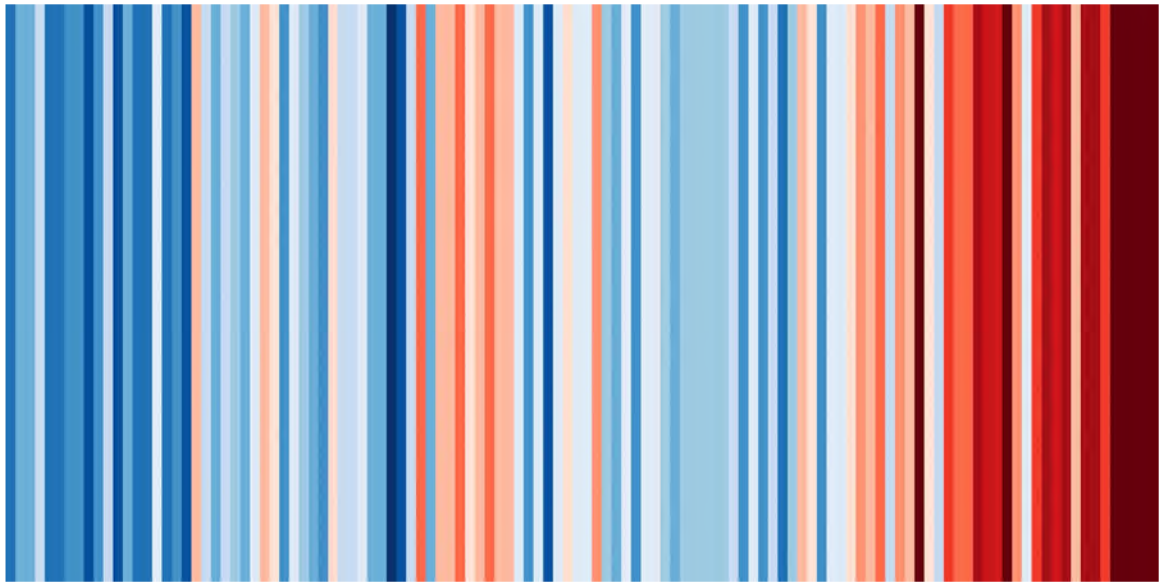
Share full article 450



Source: Bureau of Economic Analysis · By The New York Times

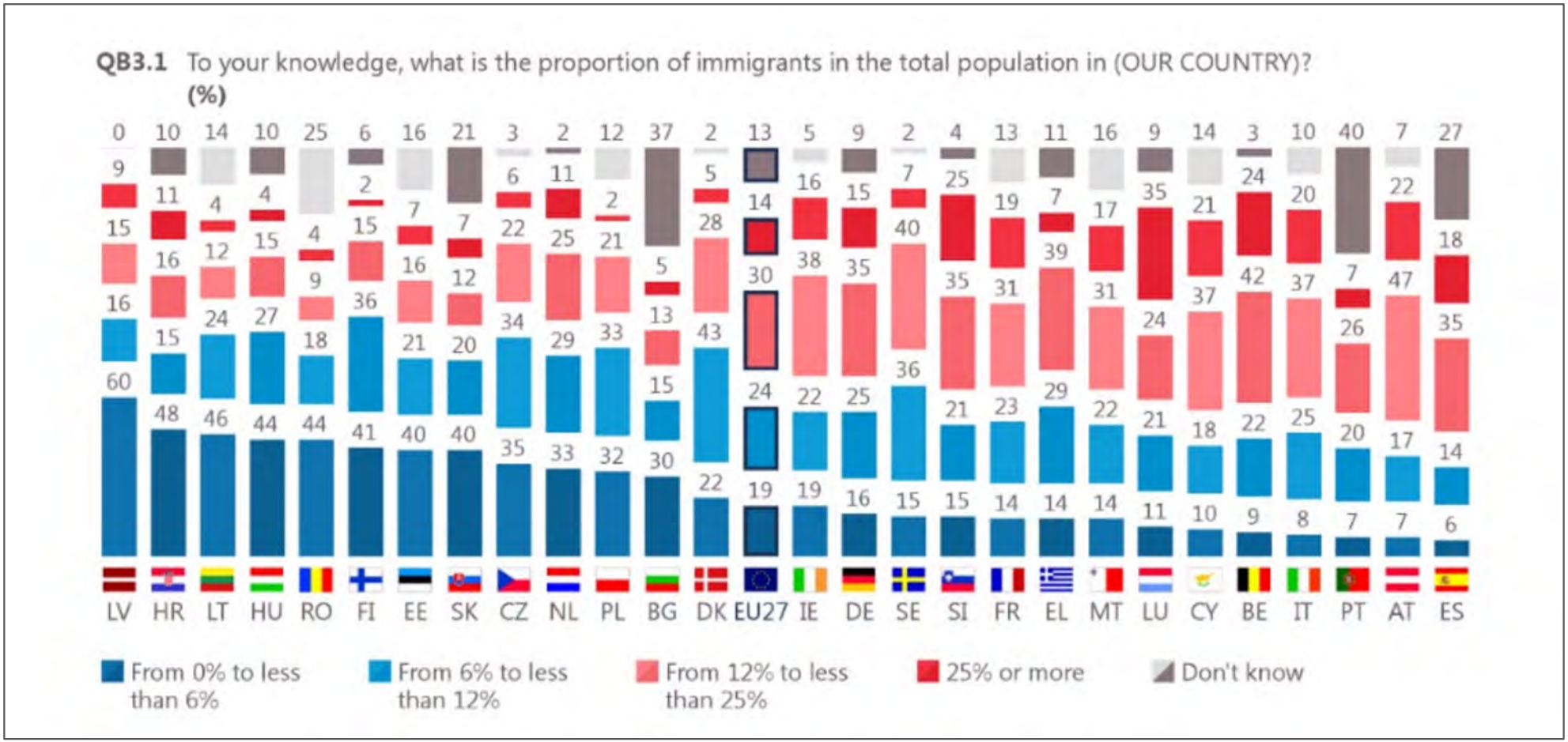


Source: Mona Chalabi



DATA HELP US BECAUSE OUR PERCEPTION OFTEN FAILS US

Our perception is not well suited to get a grasp of some complex aspects of reality.


QB3.1 To your knowledge, what is the proportion of immigrants in the total population in (OUR COUNTRY)?
(%)
LV 0 9 15 16 60
HR 10 11 16 15 48
LT 14 4 12 24 46
HU 10 4 15 27 44
RO 25 4 9 18 44
FI 6 2 15 36 41
EE 16 7 16 21 40
SK 21 7 12 20 40
CZ 3 6 22 34 35
NL 2 11 25 29 33
PL 12 2 21 33 32
BG 37 5 13 15 30
DK 2 5 28 43 22
EU27 13 14 30 24 19
IE 5 16 38 22 19
DE 9 15 35 25 16
SE 2 7 40 36 15
SI 4 25 35 21 15
FR 13 19 31 23 14
EL 11 7 39 29 14
MT 16 17 31 22 14
LU 9 35 24 21 11
CY 14 21 37 18 10
BE 3 24 42 22 9
IT 10 20 37 25 8
PT 40 7 26 20 7
AT 7 22 47 17 7
ES 27 18 35 14 6
From 0% to less than 6%
From 6% to less than 12%
From 12% to less than 25%
25% or more
Don't know

Respondents across the EU tend to overestimate the proportion of immigrants in their countries in some cases significantly while around three in ten do not know

Special Eurobarometer Dec 2021

Respondents across the EU tend to overestimate the proportion of immigrants in their countries in some cases significantly while around three in ten do not know

Special Eurobarometer Dec 2021

BREAKING

Homicides See Historic Decline In 2023 Despite Perceptions That Crime Is On The Rise

James Farrell Forbes Staff
I cover breaking news.

Follow

Dec 29, 2023, 04:48pm EST

TOPLINE After the pandemic brought historic spikes in murders, the U.S. is poised to finish the year with a historic drop in homicides and drops in other crime categories, a finding that conflicts with public perceptions that crime is on the rise, according to a recent analysis of criminal justice data.

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DATA HELPS US OVERCOME OUR COGNITIVE 'BIASES'

Our perception is negatively impacted by a good number of cognitive biases. Data can help us limit their effect.

Rosy retrospection
Anecdotal evidence
Confirmation bias
False consensus effect

...

SO, DATA ARE GOOD AND HELP US BUT…

SO, DATA ARE GOOD AND HELP US BUT...

... only if they are used correctly and, above all, if we know how to read them critically.

«Without knowing the source and context, a given statistic is useless. However, numbers and statistics appear rigorous and reliable simply because they show quantities and because of their tendency to spread…»

Carl T. Bergstrom, Jevin West “Calling Bullshit: The Art of Skepticism in a Data-Driven World”

PART 3

3 questions to ask about data

1) What about the source?

What about the source?

Just like every other piece of information a good first step to critically evaluate data is to check the source that has produced or shared them.

Press Releases

New report: 2020 was another good year for polar bears

Date: 26/02/21 | Press Release, Global Warming Policy Foundation

London, 26 February: A prominent Canadian zoologist says that Facebook's polar bear claims are gravely out of date and 2020 was another good year for polar bears.

In the *State of the Polar Bear Report 2020*, published by the Global Warming Policy Foundation (GWPF) to coincide with *International Polar Bear Day* (27 February), zoologist Dr. Susan Crockford explains that while the climate narrative insists that polar bear populations are declining due to reduced sea ice, population surveys and the scientific literature don't support such a conclusion.

Crockford clarifies that the IUCN's 2015 Red List assessment for polar bears, which Facebook uses as an authority for 'fact checking', is seriously out of date. New and compelling evidence shows that bears in regions with profound summer ice loss are doing well.

Are polar bears going extinct due to climate change?

According to this "study" published by a group called the *Global Warming Policy Foundation*, they are doing just fine.

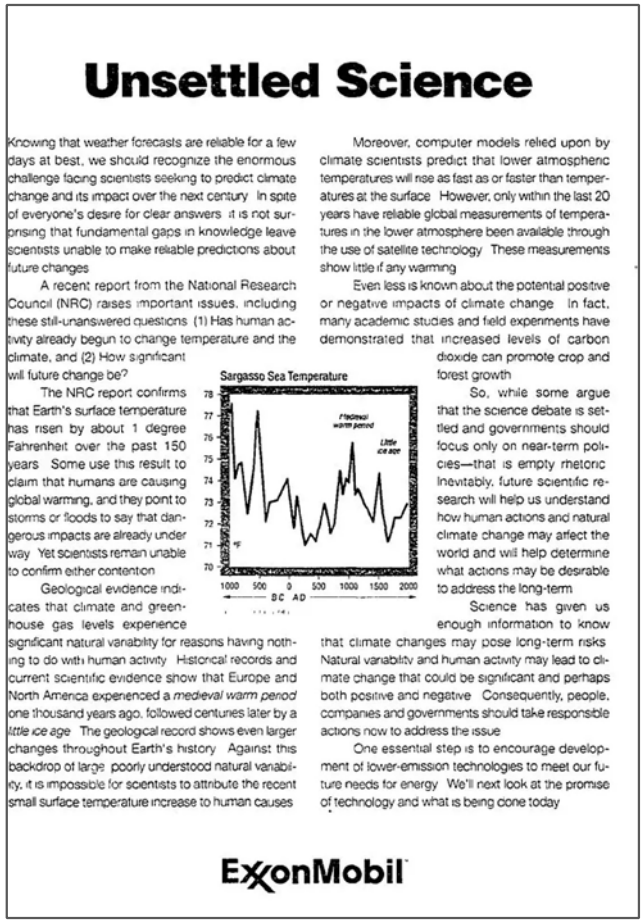
Should we trust this information?

> The reaction was swift and fierce. A post on Climate Audit, a blog popular with climate skeptics, called the article "a hit piece" and dismissed it as "yet another piece of propaganda to push a Climate Change agenda." The Global Warming Policy Foundation, a pro-fossil fuel think tank in Britain that has published briefing papers by Dr. Crockford, chimed in with the headline, "14 Climate Bullies Attack Susan Crockford for Telling the Truth About Polar Bears."

...Upon further research, we find that, despite its name, the Global Warming Foundation is a "pro-fossil fuel think tank."

As such, it has a significant interest in denying the effects of the climate crisis.

Does that necessarily mean that what they say is false? No, but it means we have to be even more careful in evaluating what they say on the subject.



Unsettled Science

Knowing that weather forecasts are reliable for a few days at best, we should recognize the enormous challenge facing scientists seeking to predict climate change and its impact over the next century. In spite of everyone's desire for clear answers, it is not surprising that fundamental gaps in knowledge leave scientists unable to make reliable predictions about future changes.

A recent report from the National Research Council (NRC) raises important issues, including these still-unanswered questions: (1) Has human activity already begun to change temperature and the climate, and (2) How significant will future change be?

The NRC report confirms that Earth's surface temperature has risen by about 1 degree Fahrenheit over the past 150 years. Some use this result to claim that humans are causing global warming, and they point to storms or floods to say that dangerous impacts are already under way. Yet scientists remain unable to confirm either contention.

Geological evidence indicates that climate and greenhouse gas levels experience significant natural variability for reasons having nothing to do with human activity. Historical records and current scientific evidence show that Europe and North America experienced a *medieval warm period* one thousand years ago, followed centuries later by a *little ice age*. The geological record shows even larger changes throughout Earth's history. Against this backdrop of large, poorly understood natural variability, it is impossible for scientists to attribute the recent small surface temperature increase to human causes.

Sargasso Sea Temperature

Moreover, computer models relied upon by climate scientists predict that lower atmospheric temperatures will rise as fast as or faster than temperatures at the surface. However, only within the last 20 years have reliable global measurements of temperatures in the lower atmosphere been available through the use of satellite technology. These measurements show little if any warming.

Even less is known about the potential positive or negative impacts of climate change. In fact, many academic studies and field experiments have demonstrated that increased levels of carbon dioxide can promote crop and forest growth.

So, while some argue that the science debate is settled and governments should focus only on near-term policies—that is empty rhetoric. Inevitably, future scientific research will help us understand how human actions and natural climate change may affect the world and will help determine what actions may be desirable to address the long-term.

Science has given us enough information to know that climate changes may pose long-term risks. Natural variability and human activity may lead to climate change that could be significant and perhaps both positive and negative. Consequently, people, companies and governments should take responsible actions now to address the issue.

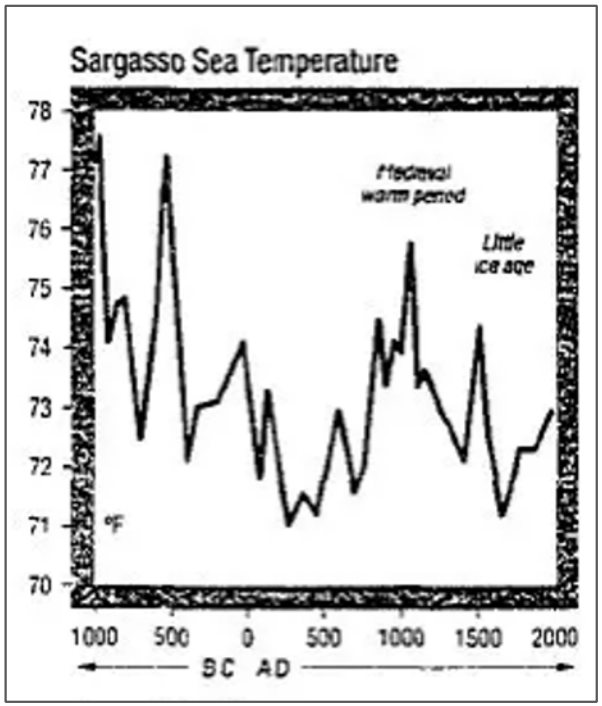
One essential step is to encourage development of lower-emission technologies to meet our future needs for energy. We'll next look at the promise of technology and what is being done today.

ExxonMobil

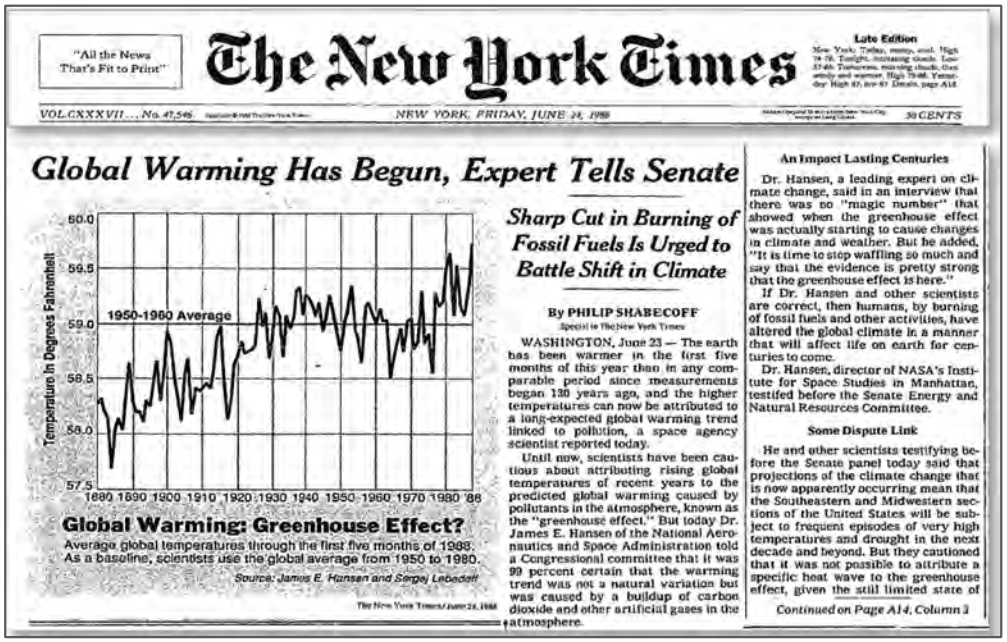
Is climate change science still “unsettled”?

Sometimes, seemingly reasonable and sensible claims supported by data should be approached with caution because the source has vested interest in a claim.

This is the case with an “advertorial” appeared in *The New York Times* in March 2000, discussing "Unsettled Science" regarding climate change.



There is also a chart showing the temperature trend in the Sargasso Sea over the last 3000 years, which aims to show that the trend is oscillating, and therefore there is no upward temperature trend.



"All the News That's Fit to Print"

The New York Times

Late Edition

VOL. CXXXVII . . . No. 47,548 NEW YORK, FRIDAY, JUNE 24, 1988 50 CENTS

Global Warming Has Begun, Expert Tells Senate

Global Warming: Greenhouse Effect?

Average global temperatures through the first five months of 1988. As a baseline, scientists use the global average from 1950 to 1980.

Source: James E. Hansen and Sergej Lebedeff

Sharp Cut in Burning of Fossil Fuels Is Urged to Battle Shift in Climate

By PHILIP SHABECOFF

Special to The New York Times

WASHINGTON, June 23 — The earth has been warmer in the first five months of this year than in any comparable period since measurements began 130 years ago, and the higher temperatures can now be attributed to a long-expected global warming trend linked to pollution, a space agency scientist reported today.

Until now, scientists have been cautious about attributing rising global temperatures of recent years to the predicted global warming caused by pollutants in the atmosphere, known as the "greenhouse effect." But today Dr. James E. Hansen of the National Aeronautics and Space Administration told a Congressional committee that it was 99 percent certain that the warming trend was not a natural variation but was caused by a buildup of carbon dioxide and other artificial gases in the atmosphere.

An Impact Lasting Centuries

Dr. Hansen, a leading expert on climate change, said in an interview that there was no "magic number" that showed when the greenhouse effect was actually starting to cause changes in climate and weather. But he added, "It is time to stop waffling so much and say that the evidence is pretty strong that the greenhouse effect is here."

If Dr. Hansen and other scientists are correct, then humans, by burning of fossil fuels and other activities, have altered the global climate in a manner that will affect life on earth for centuries to come.

Dr. Hansen, director of NASA's Institute for Space Studies in Manhattan, testifed before the Senate Energy and Natural Resources Committee.

Some Dispute Link

He and other scientists testifying before the Senate panel today said that projections of the climate change that is now apparently occurring mean that the Southeastern and Midwestern sections of the United States will be subject to frequent episodes of very high temperatures and drought in the next decade and beyond. But they cautioned that it was not possible to attribute a specific heat wave to the greenhouse effect, given the still limited state of

Continued on Page A14, Column 3

The New York Times/June 24, 1988

In reality, at the time, there was already a solid consensus among scientists on "global warming," as evidenced by this *New York Times* front page from 1988 (2 years earlier).

CLIMATE CHANGE

Exxon Knew about Climate Change almost 40 years ago

A new investigation shows the oil company understood the science before it became a public issue and spent millions to promote misinformation

By Shannon Hall on October 26, 2015

Exxon Scientists Predicted Global Warming, Even as Company Cast Doubts, Study Finds

Starting in the 1970s, scientists working for the oil giant made remarkably accurate projections of just how much burning fossil fuels would warm the planet.

And, as document revelations showed, the same oil industries, including Exxon, the author of the advertorial we started from, were well aware of the risks of continuous CO2 emissions from human activities into the atmosphere at least since the mid-1970s.

2) Are the data correct?


LA STAMPA

ACCEDI

Home > Cronaca

IL DOSSIER

CONTENUTO PER GLI ABBONATI PREMIUM

Vacanze, ecco perché gli italiani scelgono l'Albania: dai lettini alle cene al soggiorno prezzi più bassi anche del 250%

Per dormire 7 notti in una delle località di mare più note dell'Albania, dal 21 al 28 agosto in camera doppia, la spesa minima parte dai 175 euro a Valona fino ad arrivare ai 420 euro di Qeparo

2) ARE THE DATA CORRECT?

In journalism, headlines are important. Often readers read those only. And for many readers of the Italian newspaper “La Stampa”, discovering that in Albania, summer holidays may cost “up to 250%” less than in Italy can be a pleasant surprise.

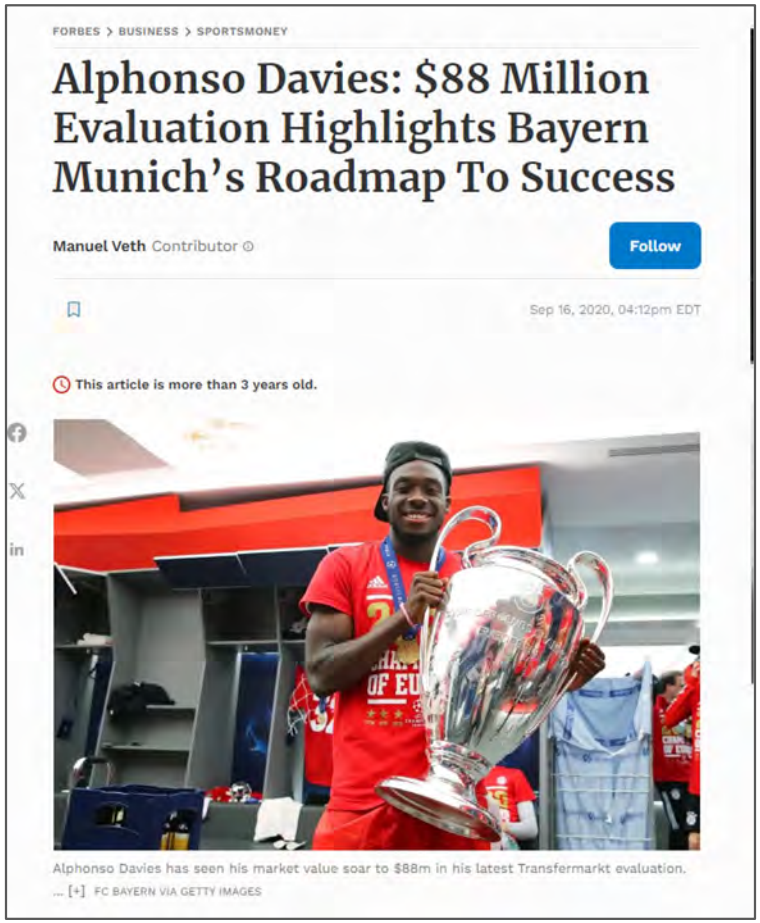
But perhaps that's too good to be true, isn't it?

2) ARE THE DATA CORRECT?

As many Twitter users pointed out in response to the article, saying that something could cost 250% less is misleading and incorrect: if that would be the case case, in fact, the price would be negative.

In general, percentages should always be handled with care, especially when used to make comparisons. And, consequently, should always be evaluated with extra care.

3) How were the data collected?



FORBES > BUSINESS > SPORTSMONEY

Alphonso Davies: $88 Million Evaluation Highlights Bayern Munich's Roadmap To Success

Manuel Veth Contributor

Follow

Sep 16, 2020, 04:12pm EDT

This article is more than 3 years old.

Alphonso Davies has seen his market value soar to $88m in his latest Transfermarkt evaluation.

... [+] FC BAYERN VIA GETTY IMAGES

3) HOW WERE THE DATA COLLECTED?

It is important to understand how a piece of data is collected or processed.

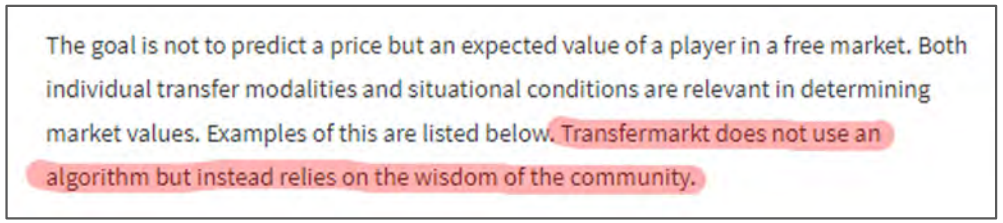
For young Alphonso Davies, a fantastic year continues. On Wednesday, just in time for the Bundesliga start, Transfermarkt updated the market values of 159 players in Germany's top flight. Among them, Davies, the 19-year-old Canadian, saw his market value grow by €20 million ($22 million) and is now worth €80 million ($88 million).

The Canadian is one of eight Bayern Munich players to see his market value updated. Among them were Serge Gnabry ($99 million), Joshua Kimmich ($93.5m), Robert Lewandowski ($66M), Thomas Müller ($38.5m), and Manuel Neuer ($19.8m). Those five, together with Davies, spearheaded Bayern's success in the Champions League was the Munich-based club became the first team in history to win every game on the way to the title.

3) HOW WERE THE DATA COLLECTED?

It is important to understand how a piece of data is collected or processed.

For example: how are market evaluations of football players reported by the popular Transfermarkt website collected?


The goal is not to predict a price but an expected value of a player in a free market. Both individual transfer modalities and situational conditions are relevant in determining market values. Examples of this are listed below. Transfermarkt does not use an algorithm but instead relies on the wisdom of the community.

3) HOW WERE THE DATA COLLECTED?

Many people think Transfermark's "market evaluation" data are produced by an algorithm.

However, looking for more information, we find out that for those data Transfermarkt relies on the so called "wisdom of the community".

Is that wrong? Not necessarily, but it is a piece of information that it is useful to know in order to evaluate the data we are using and sharing and using them correclty.

PART 4
Data verification

A 3-step process:

1 - Find the sources
2 - Analyze the content
3 - Look around

CASE STUDY:

Italy, 35 euros for hosting refugees


Libero

Giustizia canaglia

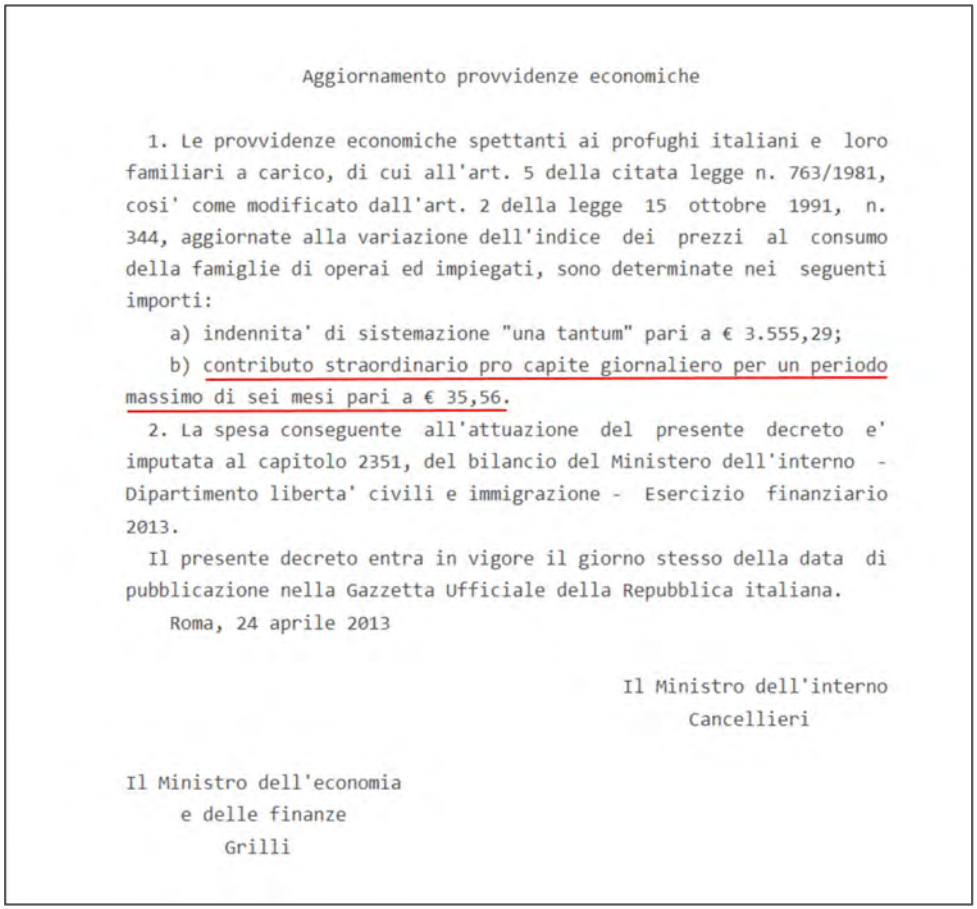
Ai profughi 35 euro
Ai terremotati solo 25

35 EUROS FOR REFUGEES?

This headline appeared on the front page of the Italian newspaper “Libero”on November 30, 2016.

It says: “€35 to refugees, just €25 to earthquake victims”

But are things really as the headline suggests? Let's try to verify.



Aggiornamento provvidenze economiche

1. Le provvidenze economiche spettanti ai profughi italiani e loro familiari a carico, di cui all'art. 5 della citata legge n. 763/1981, cosi' come modificato dall'art. 2 della legge 15 ottobre 1991, n. 344, aggiornate alla variazione dell'indice dei prezzi al consumo della famiglie di operai ed impiegati, sono determinate nei seguenti importi:

a) indennita' di sistemazione "una tantum" pari a € 3.555,29;

b) contributo straordinario pro capite giornaliero per un periodo massimo di sei mesi pari a € 35,56.

2. La spesa conseguente all'attuazione del presente decreto e' imputata al capitolo 2351, del bilancio del Ministero dell'interno - Dipartimento liberta' civili e immigrazione - Esercizio finanziario 2013.

Il presente decreto entra in vigore il giorno stesso della data di pubblicazione nella Gazzetta Ufficiale della Repubblica italiana.

Roma, 24 aprile 2013

Il Ministro dell'interno
Cancellieri

Il Ministro dell'economia
e delle finanze
Grilli

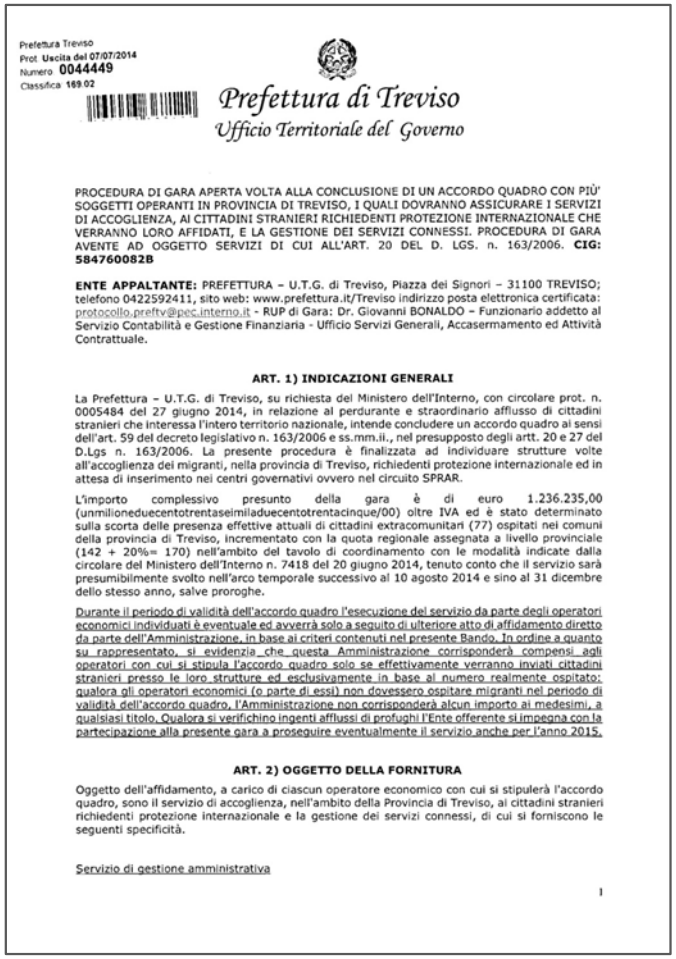
FIND THE SOURCE

The first primary source to trace to verify the data is the Italian Official Gazette (OG), where Italy's new laws are published. In 2013 the OG reported the decision of the Ministry of the Internal Affair to set the daily contribution for refugees at €35.56.

FIND THE SOURCE

b) contributo straordinario pro capite giornaliero per un periodo massimo di sei mesi pari a € 35,56.

b) Extraordinary per capita daily contribution for a maximum period of 6 months amounting to 35.56 euros



Prefettura Treviso
Prot. Uscita del 07/07/2014
Numero 0044449
Classifica 169.02

Prefettura di Treviso
Ufficio Territoriale del Governo

PROCEDURA DI GARA APERTA VOLTA ALLA CONCLUSIONE DI UN ACCORDO QUADRO CON PIÙ' SOGGETTI OPERANTI IN PROVINCIA DI TREVISO, I QUALI DOVRANNO ASSICURARE I SERVIZI DI ACCOGLIENZA, AI CITTADINI STRANIERI RICHIEDENTI PROTEZIONE INTERNAZIONALE CHE VERRANNO LORO AFFIDATI, E LA GESTIONE DEI SERVIZI CONNESSI. PROCEDURA DI GARA AVENTE AD OGGETTO SERVIZI DI CUI ALL'ART. 20 DEL D. LGS. n. 163/2006. **CIG: 5847600828**

ENTE APPALTANTE: PREFETTURA – U.T.G. di Treviso, Piazza dei Signori – 31100 TREVISO; telefono 0422592411, sito web: www.prefettura.it/Treviso indirizzo posta elettronica certificata: protocollo.preftv@pec.interno.it - RUP di Gara: Dr. Giovanni BONALDO – Funzionario addetto al Servizio Contabilità e Gestione Finanziaria - Ufficio Servizi Generali, Accasermamento ed Attività Contrattuale.

ART. 1) INDICAZIONI GENERALI

La Prefettura – U.T.G. di Treviso, su richiesta del Ministero dell'Interno, con circolare prot. n. 0005484 del 27 giugno 2014, in relazione al perdurante e straordinario afflusso di cittadini stranieri che interessa l'intero territorio nazionale, intende concludere un accordo quadro ai sensi dell'art. 59 del decreto legislativo n. 163/2006 e ss.mm.ii., nel presupposto degli artt. 20 e 27 del D.Lgs n. 163/2006. La presente procedura è finalizzata ad individuare strutture volte all'accoglienza dei migranti, nella provincia di Treviso, richiedenti protezione internazionale ed in attesa di inserimento nei centri governativi ovvero nel circuito SPRAR.

L'importo complessivo presunto della gara è di euro 1.236.235,00 (unmilioneduecentotrentaseimiladuecentotrentacinque/00) oltre IVA ed è stato determinato sulla scorta delle presenza effettive attuali di cittadini extracomunitari (77) ospitati nei comuni della provincia di Treviso, incrementato con la quota regionale assegnata a livello provinciale (142 + 20%= 170) nell'ambito del tavolo di coordinamento con le modalità indicate dalla circolare del Ministero dell'Interno n. 7418 del 20 giugno 2014, tenuto conto che il servizio sarà presumibilmente svolto nell'arco temporale successivo al 10 agosto 2014 e sino al 31 dicembre dello stesso anno, salve proroghe.

Durante il periodo di validità dell'accordo quadro l'esecuzione del servizio da parte degli operatori economici individuati è eventuale ed avverrà solo a seguito di ulteriore atto di affidamento diretto da parte dell'Amministrazione, in base ai criteri contenuti nel presente Bando. In ordine a quanto su rappresentato, si evidenzia che questa Amministrazione corrisponderà compensi agli operatori con cui si stipula l'accordo quadro solo se effettivamente verranno inviati cittadini stranieri presso le loro strutture ed esclusivamente in base al numero realmente ospitato; qualora gli operatori economici (o parte di essi) non dovessero ospitare migranti nel periodo di validità dell'accordo quadro, l'Amministrazione non corrisponderà alcun importo ai medesimi, a qualsiasi titolo. Qualora si verifichino ingenti afflussi di profughi l'Ente offerente si impegna con la partecipazione alla presente gara a proseguire eventualmente il servizio anche per l'anno 2015.

ART. 2) OGGETTO DELLA FORNITURA

Oggetto dell'affidamento, a carico di ciascun operatore economico con cui si stipulerà l'accordo quadro, sono il servizio di accoglienza, nell'ambito della Provincia di Treviso, ai cittadini stranieri richiedenti protezione internazionale e la gestione dei servizi connessi, di cui si forniscono le seguenti specificità.

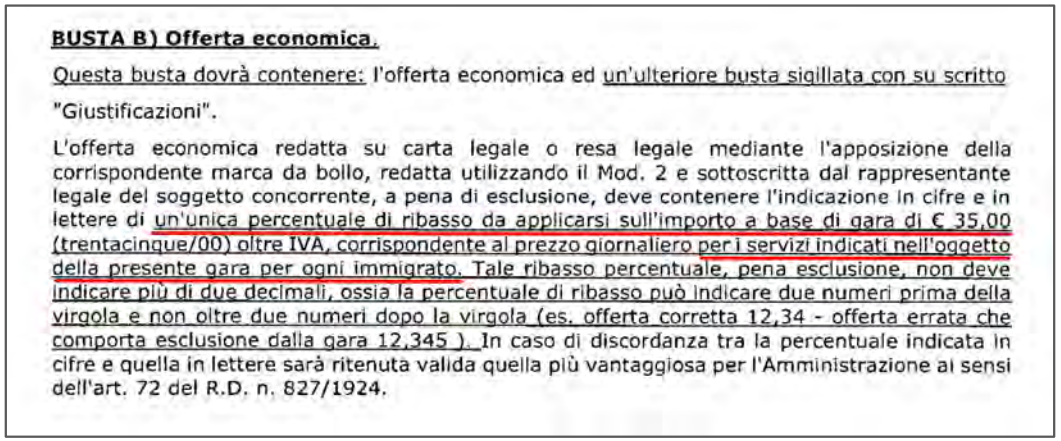
Servizio di gestione amministrativa

1

FIND THE SOURCE

Upon further investigation, it can be discovered that these funds are provided by the government to the facilities that host the migrants through local tenders issued by Prefectures, the authorities that represent the central government at the local level.

These tenders are also a primary source to check. For instance, the tender announced by the Prefecture of Treviso, in Northern Italy.



BUSTA B) Offerta economica.

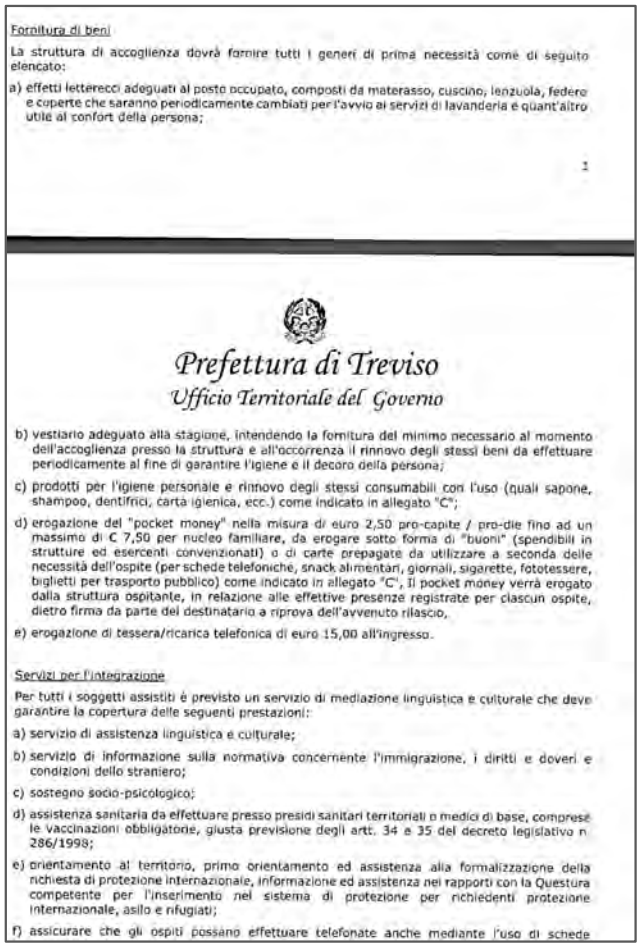
Questa busta dovrà contenere: l'offerta economica ed un'ulteriore busta sigillata con su scritto "Giustificazioni".

L'offerta economica redatta su carta legale o resa legale mediante l'apposizione della corrispondente marca da bollo, redatta utilizzando il Mod. 2 e sottoscritta dal rappresentante legale del soggetto concorrente, a pena di esclusione, deve contenere l'indicazione in cifre e in lettere di un'unica percentuale di ribasso da applicarsi sull'importo a base di gara di € 35,00 (trentacinque/00) oltre IVA, corrispondente al prezzo giornaliero per i servizi indicati nell'oggetto della presente gara per ogni immigrato. Tale ribasso percentuale, pena esclusione, non deve indicare più di due decimali, ossia la percentuale di ribasso può indicare due numeri prima della virgola e non oltre due numeri dopo la virgola (es. offerta corretta 12,34 - offerta errata che comporta esclusione dalla gara 12,345). In caso di discordanza tra la percentuale indicata in cifre e quella in lettere sarà ritenuta valida quella più vantaggiosa per l'Amministrazione ai sensi dell'art. 72 del R.D. n. 827/1924.

ANALYZE THE CONTENT

At this point, we can better analyze the content. In the tender, it is mentioned that the starting bidding price is 35 euros per person and the bidding process is carried out in a downward manner.

But what exactly are these funds used for?



Fornitura di beni

La struttura di accoglienza dovrà fornire tutti i generi di prima necessità come di seguito elencato:

a) effetti letterecci adeguati al posto occupato, composti da materasso, cuscino, lenzuola, federe e coperte che saranno periodicamente cambiati per l'avvio ai servizi di lavanderia e quant'altro utile al confort della persona;

1

Prefettura di Treviso
Ufficio Territoriale del Governo

b) vestiario adeguato alla stagione, intendendo la fornitura del minimo necessario al momento dell'accoglienza presso la struttura e all'occorrenza il rinnovo degli stessi beni da effettuare periodicamente al fine di garantire l'igiene e il decoro della persona;

c) prodotti per l'igiene personale e rinnovo degli stessi consumabili con l'uso (quali sapone, shampoo, dentifrici, carta igienica, ecc.) come indicato in allegato "C";

d) erogazione del "pocket money" nella misura di euro 2,50 pro-capite / pro-die fino ad un massimo di € 7,50 per nucleo familiare, da erogare sotto forma di "buoni" (spendibili in strutture ed esercenti convenzionati) o di carte prepagate da utilizzare a seconda delle necessità dell'ospite (per schede telefoniche, snack alimentari, giornali, sigarette, fototessere, biglietti per trasporto pubblico) come indicato in allegato "C", Il pocket money verrà erogato dalla struttura ospitante, in relazione alle effettive presenze registrate per ciascun ospite, dietro firma da parte del destinatario a riprova dell'avvenuto rilascio,

e) erogazione di tessera/ricarica telefonica di euro 15,00 all'ingresso.

Servizi per l'integrazione

Per tutti i soggetti assistiti è previsto un servizio di mediazione linguistica e culturale che deve garantire la copertura delle seguenti prestazioni:

a) servizio di assistenza linguistica e culturale;

b) servizio di informazione sulla normativa concernente l'immigrazione, i diritti e doveri e condizioni dello straniero;

c) sostegno socio-psicologico;

d) assistenza sanitaria da effettuare presso presidi sanitari territoriali o medici di base, comprese le vaccinazioni obbligatorie, giusta previsione degli artt. 34 e 35 del decreto legislativo n. 286/1998;

e) orientamento al territorio, primo orientamento ed assistenza alla formalizzazione della richiesta di protezione internazionale, informazione ed assistenza nei rapporti con la Questura competente per l'inserimento nel sistema di protezione per richiedenti protezione internazionale, asilo e rifugiati;

f) assicurare che gli ospiti possano effettuare telefonate anche mediante l'uso di schede

ANALYZE THE CONTENT

Upon closer analysis, we discover that these 35 euros are intended to cover many expenses.

d) erogazione del "pocket money" nella misura di euro 2,50 pro-capite / pro-die fino ad un massimo di € 7,50 per nucleo familiare, da erogare sotto forma di "buoni" (spendibili in strutture ed esercenti convenzionati) o di carte prepagate da utilizzare a seconda delle necessità dell'ospite (per schede telefoniche, snack alimentari, giornali, sigarette, fototessere, biglietti per trasporto pubblico) come indicato in allegato "C", Il pocket money verrà erogato dalla struttura ospitante, in relazione alle effettive presenze registrate per ciascun ospite, dietro firma da parte del destinatario a riprova dell'avvenuto rilascio,

ANALYZE THE CONTENT

Only a small fraction actually reaches the refugees' pockets.

How much? 2.5 euros. And no more than 7.5 euros per family.

d) erogazione del "pocket money" nella misura di euro 2,50 pro-capite / pro-die fino ad un massimo di € 7,50 per nucleo familiare, da erogare sotto forma di "buoni" (spendibili in strutture ed esercenti convenzionati) o di carte prepagate da utilizzare a seconda delle necessità dell'ospite (per schede telefoniche, snack alimentari, giornali, sigarette, fototessere, biglietti per trasporto pubblico) come indicato in allegato "C", Il pocket money verrà erogato dalla struttura ospitante, in relazione alle effettive presenze registrate per ciascun ospite, dietro firma da parte del destinatario a riprova dell'avvenuto rilascio,

2.50 euros per capita/per day, up to a maximum of 7.50 euros per family unit.

LOOK AROUND

To verify if our research and conclusions are accurate, we can try to look around for additional information on the topic.

For instance, a report from the Ministry of Internal Affairs.

Dato che la voce più consistente è quella del personale (38%), la prima considerazione è che **sui circa 35 euro pro-capite spesi per lo SPRAR, oltre un terzo va a coprire le retribuzioni di operatori e professionisti.**

Tabella 13. Valore pro-capite giornaliero della spesa SPRAR (11.584 posti)

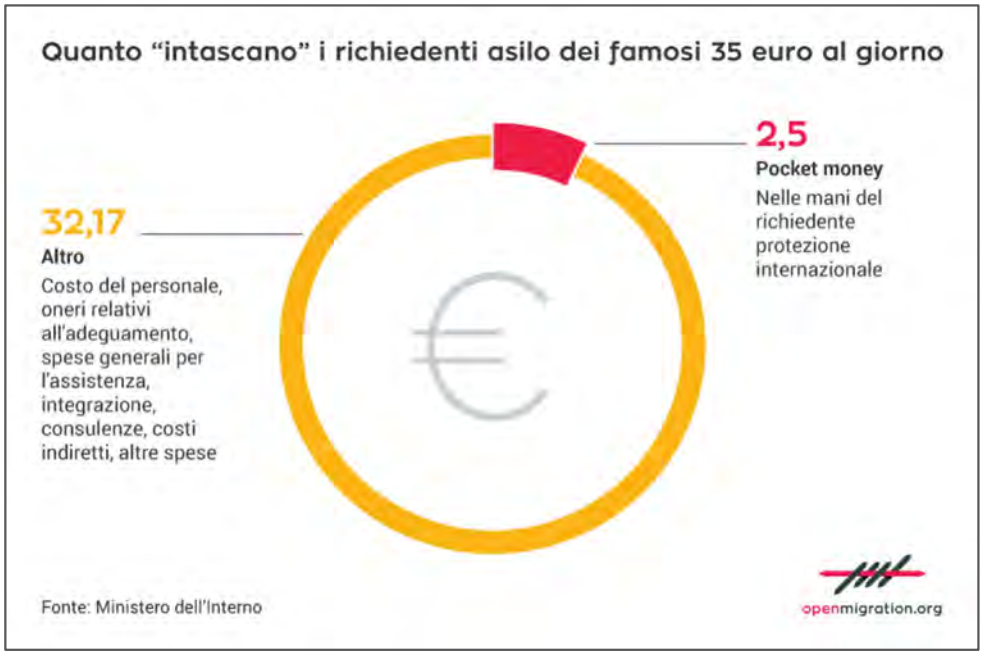
Voci di spesa	Spesa 2014 (euro)	Distribuzione
Costo del personale	13,16	37,9%
Oneri relativi all'adeguamento	4,30	12,4%
Spese generali per l'assistenza	8,24	23,8%
Integrazione	2,15	6,2%
Consulenze	1,31	3,8%
Costi indiretti	0,30	0,9%
Altre spese	5,21	15,0%
Totale	**34,67**	**100,00%**

Fonte: elaborazioni Fondazione Leone Moressa su dati Ministero dell'Interno e ANCI

LOOK AROUND

The report verifies that the average daily expenditure per refugee is indeed 35 euros.

However, only a small portion is allocated directly to the immigrants, specifically a fraction of what is termed "general assistance expenses," averaging around 8.24 euros.



LOOK AROUND

A dossier from the Carta di Roma Association affirms that the state allocates 35 euros for every asylum seeker, with a mere 2.5 euros directly benefiting the individual. The remaining funds are attributed to expenses related to reception, assistance, integration, and other associated costs.

Migranti, i costi dell'accoglienza: 35 euro al giorno. Ma ai richiedenti asilo ne vanno 2,50

di Andrea Gagliardi

4 giugno 2018

▲ Ancora naufragi, 35 migranti morti a largo Tunisia

LOOK AROUND

Similar data is reported in an article from the Italian newspaper "Il Sole 24 Ore".

LOOK AROUND

A report from UNHCR Italy similarly concludes that asylum seekers are entitled exclusively to pocket money, amounting to 2.50 euros per day, with a cap of 7.50 euros per family unit.

Co-funded by
the European Union

FREE YOU NEXT

FAKE
RISK
ESCAPING
THROUGH
THE EMPOWER-
MENT
OF YOUTH
NEXT

Course 1

Living in a World Built on Data

Co-funded by the European Union

FREE YOU NEXT

FAKE
RISK
ESCAPING
THROUGH
THE EMPOWER-
MENT
OF YOUTH
NEXT

Module 1.2

Synthetic Media

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the European Union

PART 1

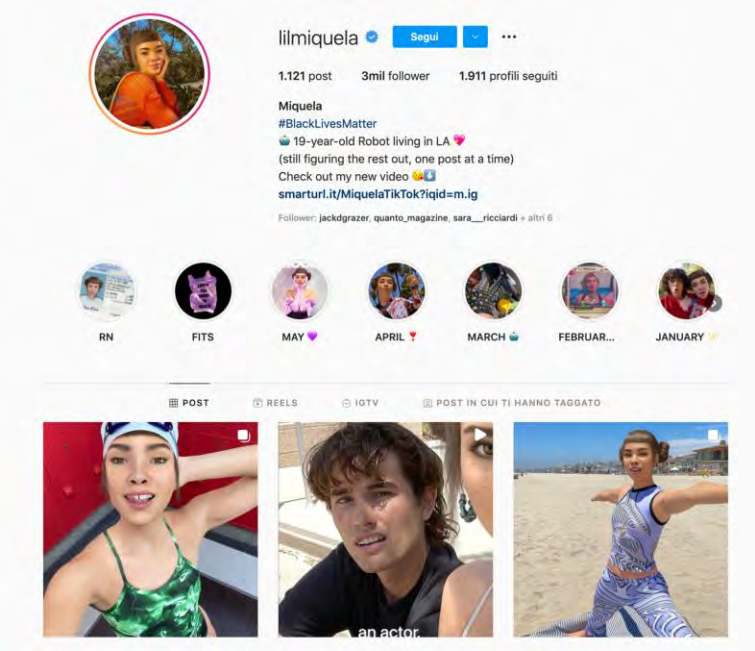
What are synthetic media?

Synthetic media include:

- video
- audio
- pictures
- texts

generated by an artificial intelligence (AI) that manages everything (or part) the creative process.

EVOLUTION OF MEDIA



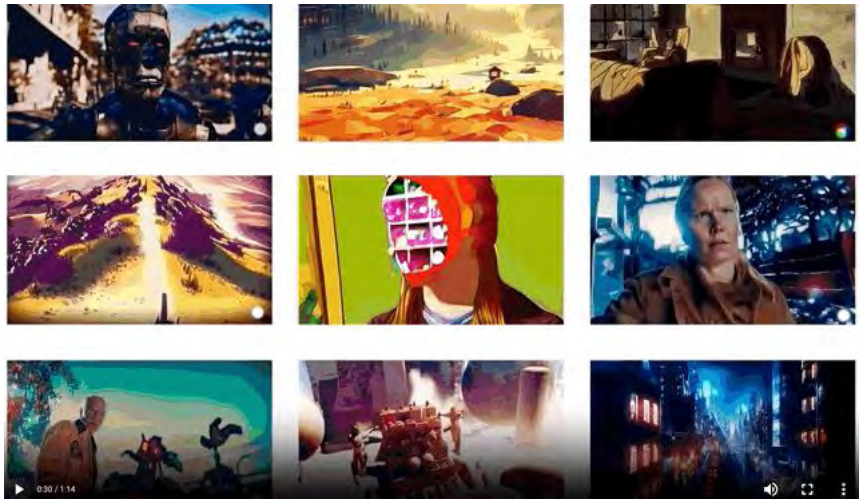
SYNTHETIC CHARACTERS

Lil Miquela is the most famous virtual avatar, with over 3 million followers on Instagram.

She has worked for big brands and appeared in videos with other celebrity.

Yet she is not real, she is a 3D model created by a team of experts in special effects.

Compared with special effects, these avatars are generatable almost
by anyone, thanks to apps that we are now going to discover



SYNTHETIC VIDEOS

Deepfakes are the best known examples of synthetic videos created with Artificial Intelligence and Special Visual Effects technologies.

Here are some examples:
- Terminator with Sylvester Stallone
- Zuckerberg controls us
- Beckham speaks 9 languages

SYNTHETIC IMAGES

Artificial intelligence software is able to generate
easily images of people who do not exist, such as these models: none of them exist.

Look at the project
ThisPersonDoesNotExist.com

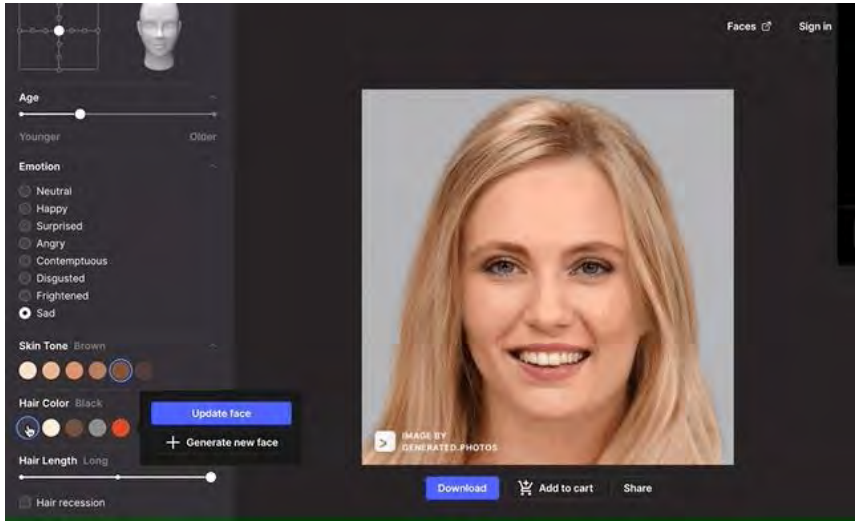
The models in these images are not real, they are stock photos

SYNTHETIC IMAGES

This Ny Times article analyzes how the synthetic images and what are the best strategies for verify them.

Also, check this out:

AI biases



SYNTHETIC IMAGES

There are image banks that allow you to generate synthetic photos with the characteristics that we want.

MICRO-ACTIVITY

Go to Face Generator and try to create a series of artificial portraits.

FAKE GEOGRAPHY

Software is capable of generating credible satellite images of Completely nonexistent locations.

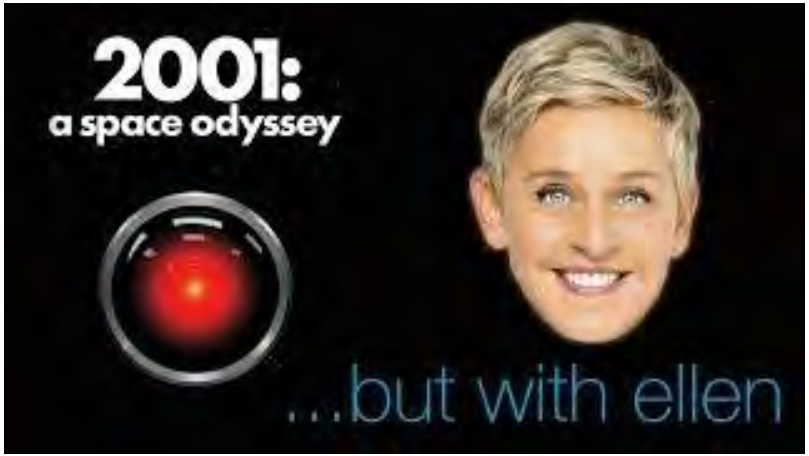
- Fake Geography
- The Fake Places That Only Exist to Catch Copycat Mapmakers

ANIMATED PHOTOS

AI now makes it easy to animate static images and thus to "bring back to life" people who never existed, such as the characters from famous paintings or even animate portraits Of old family photos with DeepNostalgia.

🙋♀ MICRO-ACTIVITY

Take a historical black and white photo, upload it to DeepNostalgia And see how it feels...



SYNTHETIC VOICES

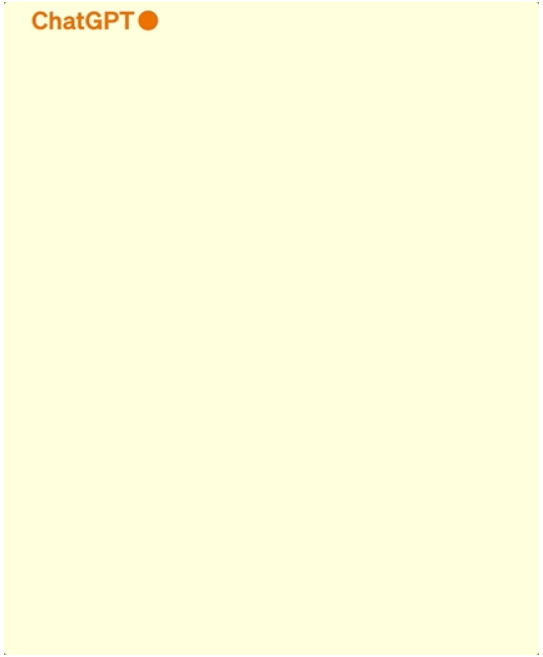
Artificial voices have become mainstream in smartphones that we all use.

But now you can also create your own voice artificial, cloning their own or other people's. Look at the project Resemble.ai

Siri or Alexa are examples of synthetic voices

PART 2

From text to...



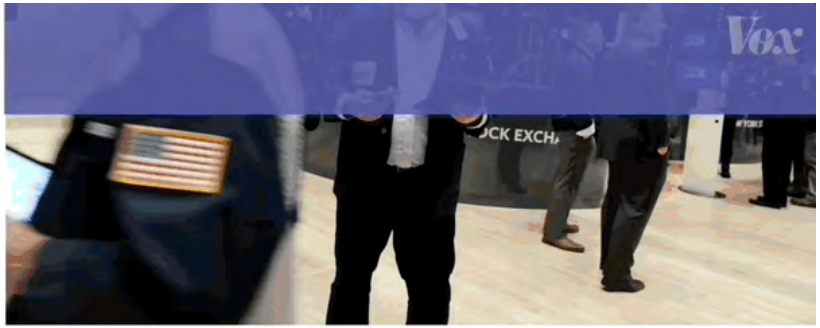
CHATGPT

It is the tool that made text generative AI popular.

If you use it for business, we recommend to use Premium version: more stable and with access to better features (including the GPT4, while the free version has the GPT3.5 model)

In 2022, the number of AI software able to transform text (of prompts) into different types of content: images, audio, programming language started to spread…


AI ART
PROMPT
a couple standing in
the mountains by Magritte
Vox

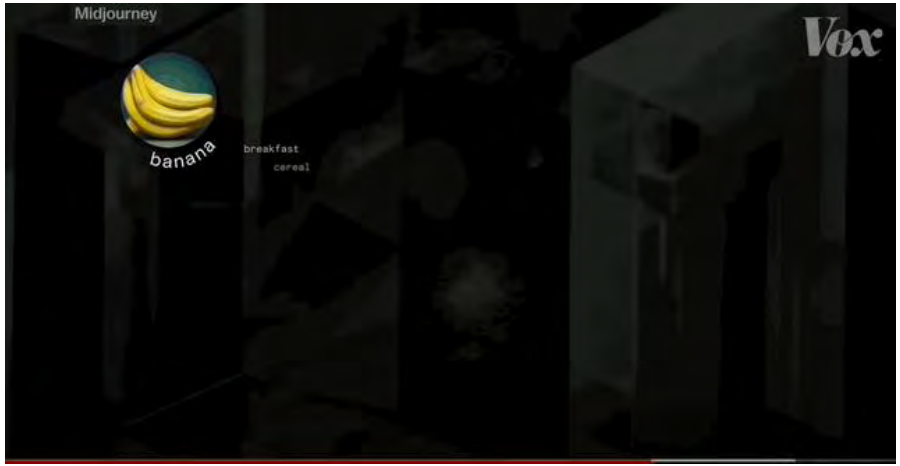


TRAINING DATA

First of all, the model needs a dataset of training that includes matching text and image pairs. These pairs are used to teach the model how the textual descriptions correlate with visual images.

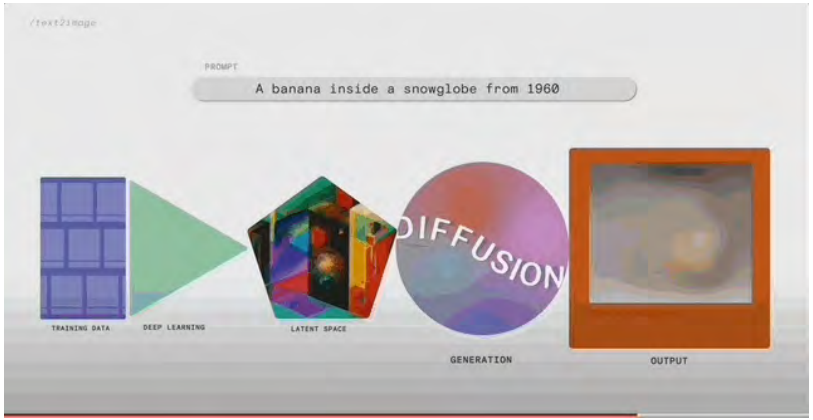
DEEP LEARNING

The deep learning model is then trained on this set of data. During this phase, the model learns to map the textual descriptions in a feature space that can be further used to generate images.



LATENT SPACE

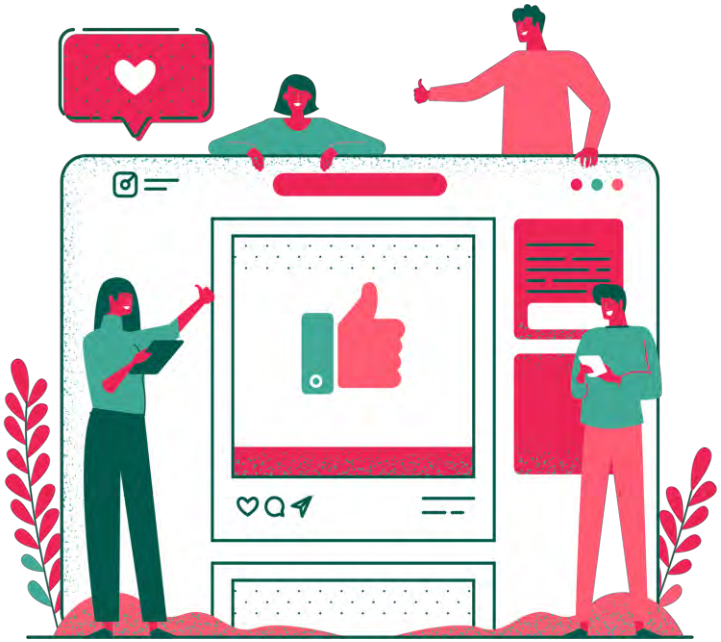
The trained model generates a representation in the "latent space" which is a compendium of essential features of both the text than of images. This latent space acts as a bridge between textual descriptions and visual images.



GENERATION

When entering a new textual description into the model, this is first mapped to the latent space.

From here, the model uses its visual part to generate an image that matches that latent representation. In this way, words are "translated" into a visual form.



TEXT TO IMAGE

There are several software programs that allow you to turn prompts into images, some have already become chargeable.
Have you ever tried dream.ai?

MICRO-ACTIVITY

Can you distinguish the 3 dogs created by the StableDiffusion AI from the real one? Activity proposed by the nonprofit association thisdogexist

It may be helpful for you to know that there are databases of stock images created by AI that can be used for free.

🙋♀ MICRO-ACTIVITY

Browse stockai. Discover hundreds of AI-generated images and
the prompt that was used to create them.

TEXT TO SPEECH

Compared with voice readers, TTSs are software that tries to simulating human voices.

There are several software programs, but most useful are premium

You can try Natural Reader

TEXT TO VIDEO

You start with a text, choose a template, avatar and style, and you gets a video!

Again, most of the platforms are freemium

🙋‍♀️ MICRO-ACTIVITY

Try the free demo of Synthesia or Runway to generate a mini-video from text

Starting from normal text, you can get the translation in programming language also with ChatGPT.

SEE MORE

A guide from FreeCodeCamp on how to improve code thanks AI.

PART 3

Tools for creating synthetic media

DALL-E

First public image generator, created by OpenAI

Try it here

MIDJOURNEY

Very powerful image generator, especially for the photorealism. Interface more complicated because you have to go through Discord.

Try it here

STABLE DIFFUSION

DreamStudio is Stable Diffusion's image generator.

It is open source

Try it here

DREAM by Wombo

Very simple tool to use, but more limited than the others

Try it here

[Prompt: A boy reading a book in a tree, realist style]

PART 4
Uses and abuses

EDMOND DE BELAMY

Artwork generated by the French collective Obvious. The painting is part of a series featuring a family fictional 18th-century Belamy family.

The work is being sold at auction by Christie's for a sum of approx. 432,500 in 2018.

SPATIAL OPERA HOUSE

This work won first place in the digital arts category In the Colorado State Fair of 2022.

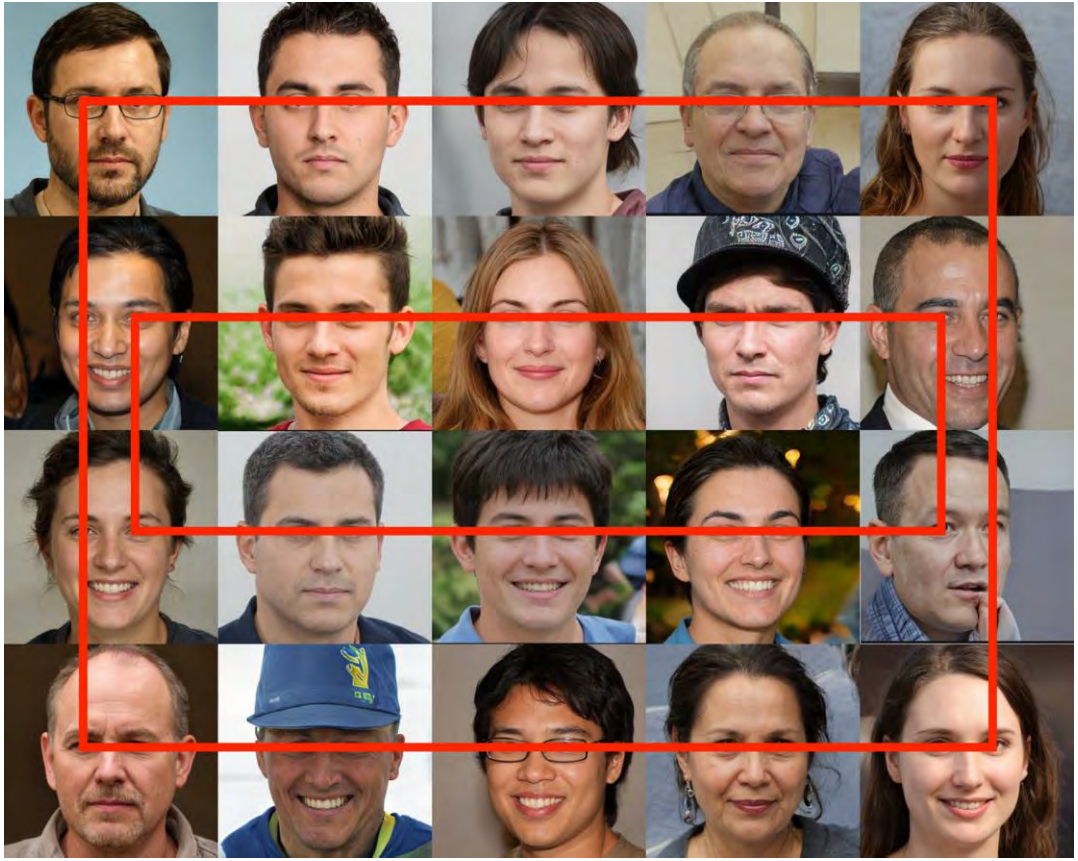
Many competing artists were not happy...

SONY WORLD PHOTOGRAPHY AWARD

German photographer Boris Eldagsen, winner of the category Creative of the prestigious Sony World Photography Award, declined the award as it used an image generator of artificial intelligence to create his work.

FALSE POLITICIANS

A network of fake Facebook accounts to influence the outcome Of the elections in 2020.



DEEPFAKE IN WAR

Fake video with the president of Ukraine announcing to the country the surrender.

TRUMP ARRESTED

The fake picture of Donald Trump's arrest

POPE IN A DOWN JACKET

Pope Francis in an alleged white comforter was another photo-visual AI catchphrase.

It was actually generated as an experiment.

PUTIN ON HIS KNEES

BERLUSCONI'S MOCK FUNERAL

UNCANNY VALLEY

PART 5

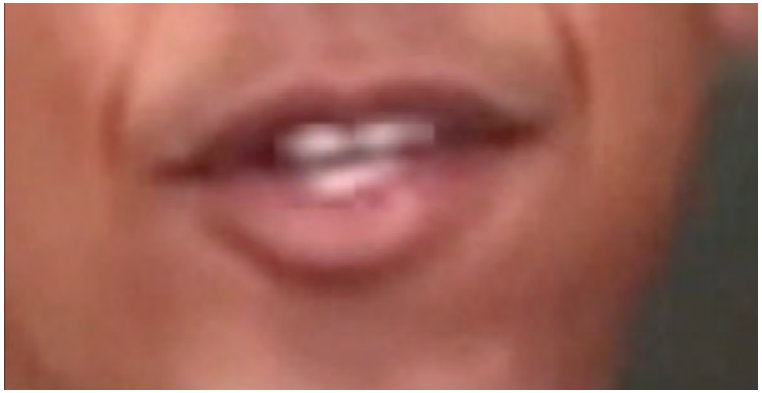
How to analyze an AI-generated media

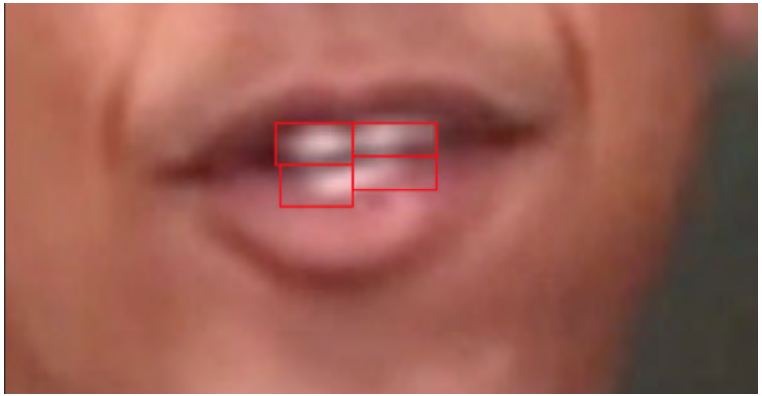
CHECKLIST

AI is still not perfect. Many physical and environmental details do not Are best rendered, such as:

- facial details
- movements

- background elements
- glitch



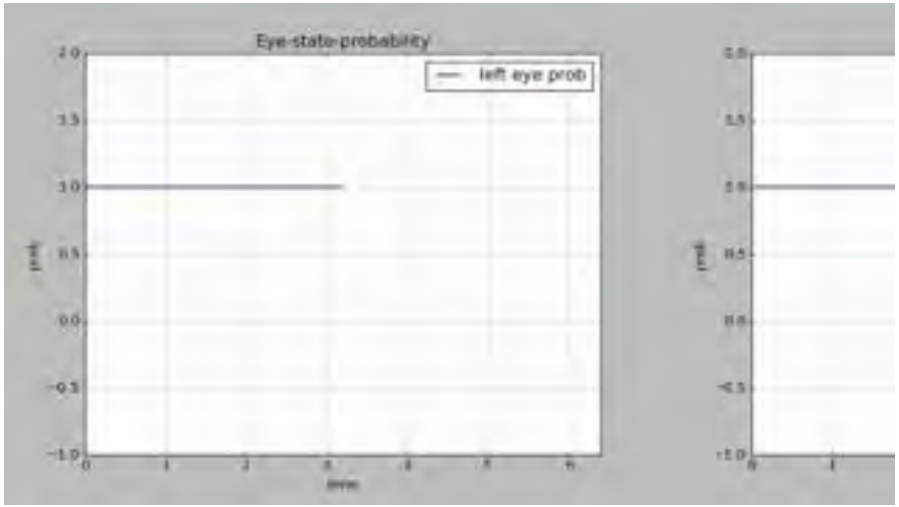


TEETH

These imperfections are most noticeable on teeth, eyes, and hair. As seen in this video, Obama's teeth are all the same and ill-defined.

Or again in these photos with poorly defined teeth or shapes out of proportion.

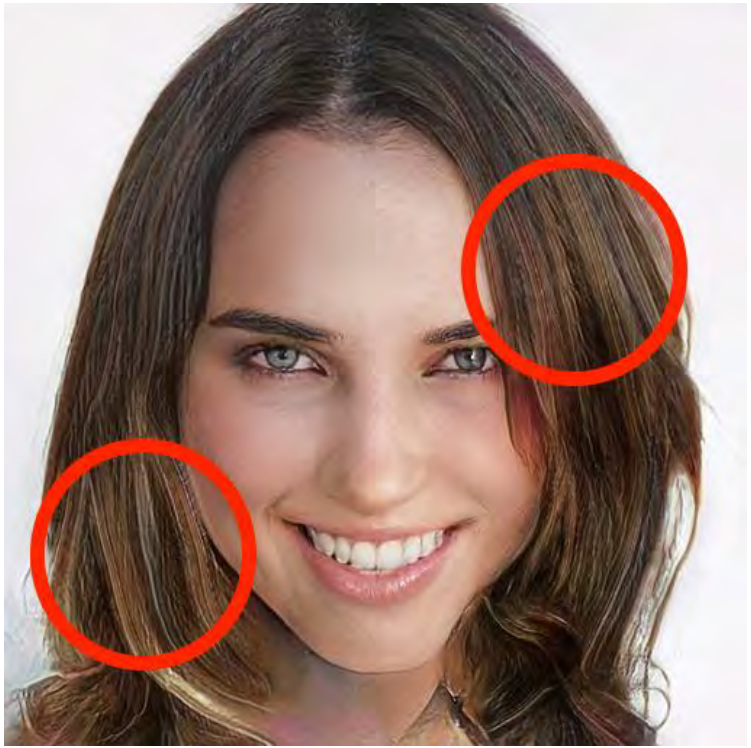
Strange movements in the forehead or facial muscles, as in this video of Obama where the jaw seems to go on its own



BLINKING OR NOT?

Some researchers have noticed that in early deepfakes, the characters never blinked. Kind of like the cyborg characters in Terminators who never blink.

The new deepfakes have corrected this error, but some times it is possible to find.



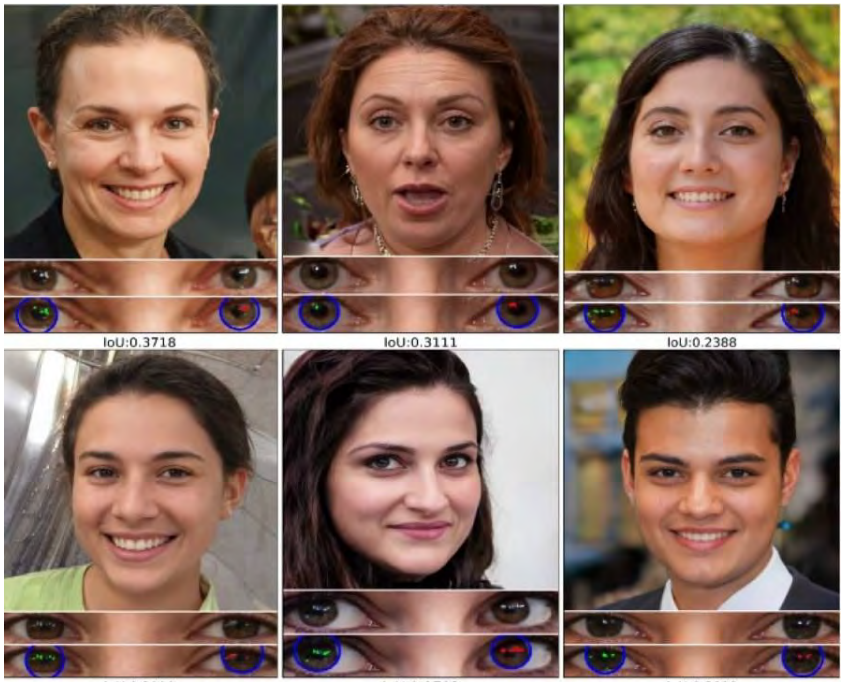
HAIR AND SKIN

Excessively smooth and shiny skin.

Hair with iridescent colors or strong streaks.

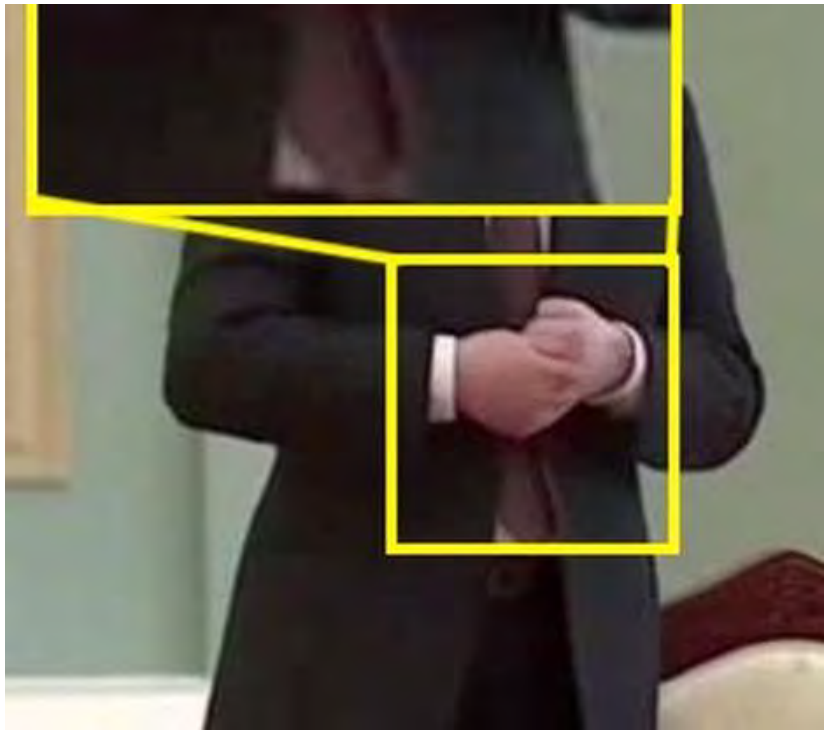
EYES and EARS

Asymmetries in the eyes, ears… Also beware of glasses: software often creates lenses with different or wrong mounts.



EYE REFLECTIONS

Researchers at the University at Buffalo have shown that many Synthetic images have reflections in different eyes. An algorithm has been trained to automatically recognize these differences.



HANDS

Generative AI programs still make it very difficult to create Hands done right, with all fingers.

You can see it both in the photo:
- Putin with Jinping

HANDS

Look closely…

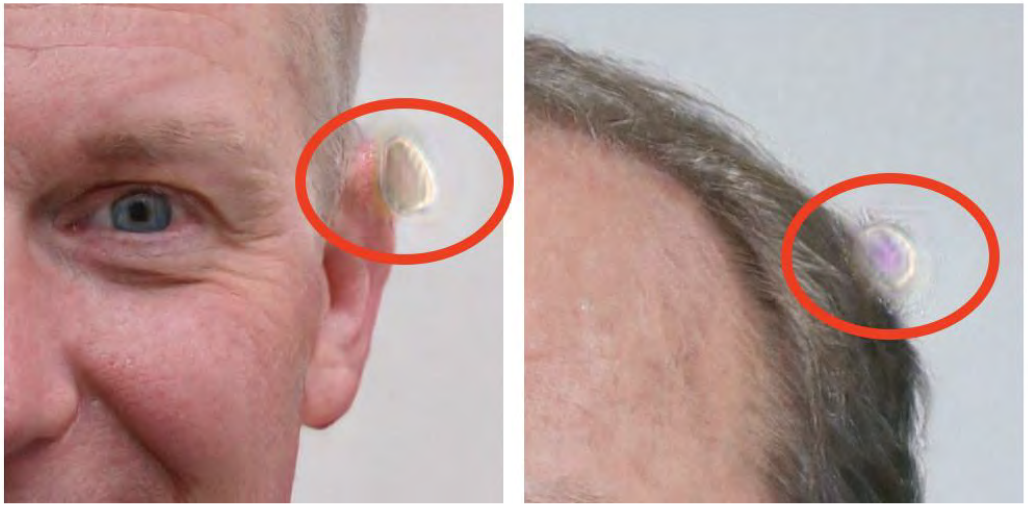
BACKGROUND

→ Vague and blurred shapes in the background

BACKGROUND

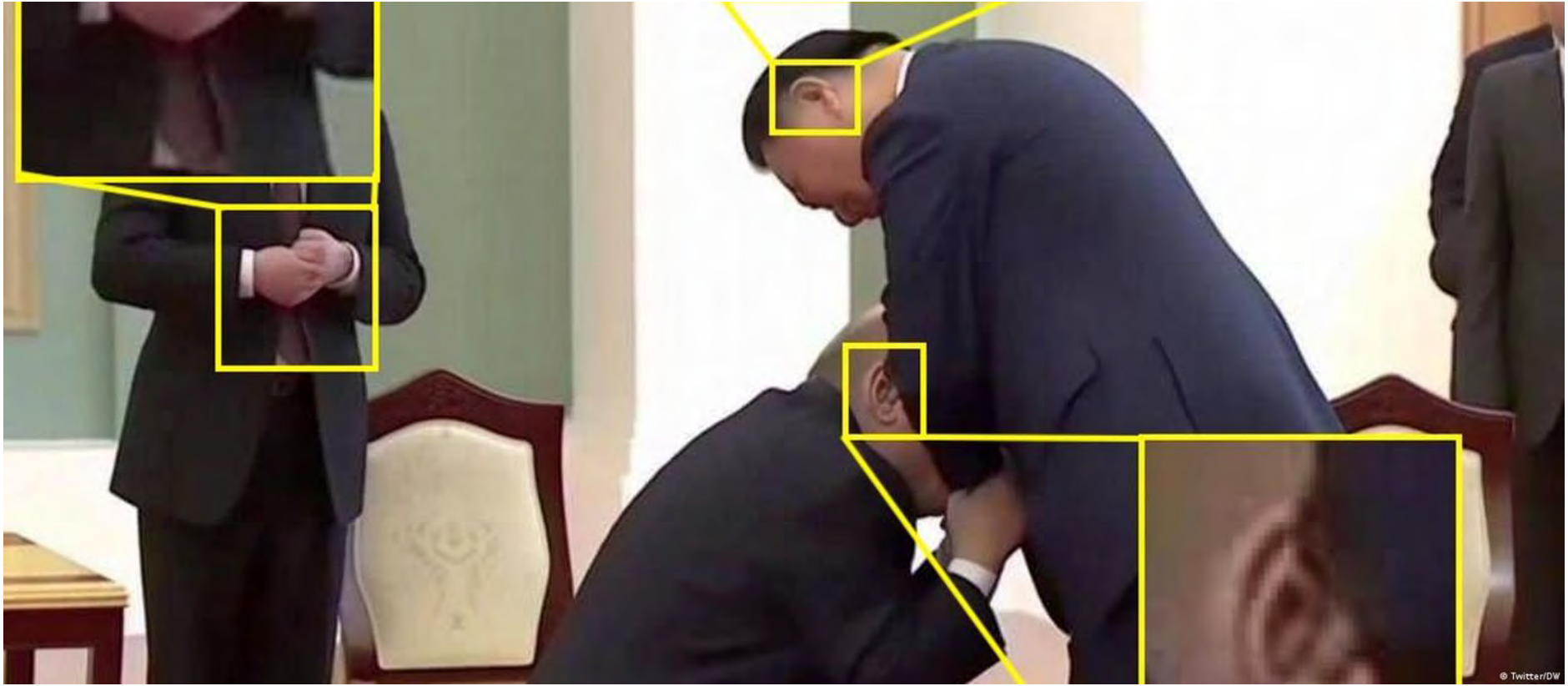
→ Texts that are unreadable or generated with strange alphabets

→Indistinct masses of color



GLITCH

Strange color patches or "glitches" (system defect) especially when the speaker moves from a frontal shot to a lateral shot.


© Twitter/DW

A closer look at the Balenciaga Pope image

His **eyelid** appears to merge into his glasses then flow into their own shadow

His **fingers** are closed around thin air rather than the coffee cup he carries

The **crucifix** is held inexplicably aloft with the other half of the chain missing

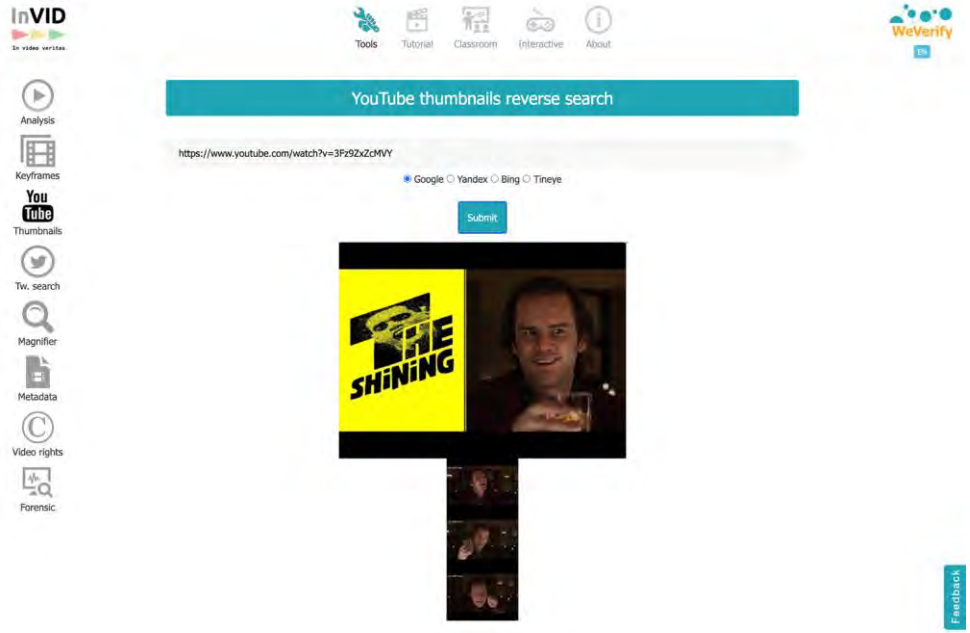
WATERMARK

DALL-E introduced a watermark to signal that an image was artificially generated.
It appears as a sequence of 5 colored squares and can be found in lower right.
In any case, the watermark can be easily removed with several online programs.

REVERSE SEARCH

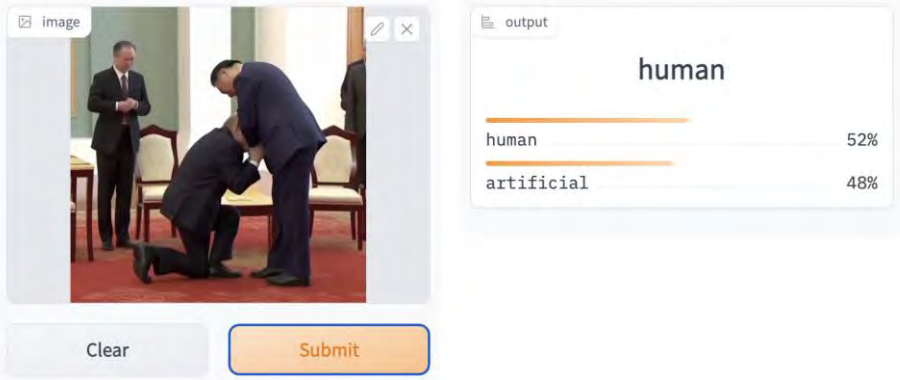
Some useful tools:

- Google Images
- TinEye



InVID

InVid is a free online service that allows you to conduct analysis in-depth on video and images. Useful if you want to analyze individual frames of a video with a deepfake and so better understand whether there are details (teeth, eyes,hair) that don't quite add up.

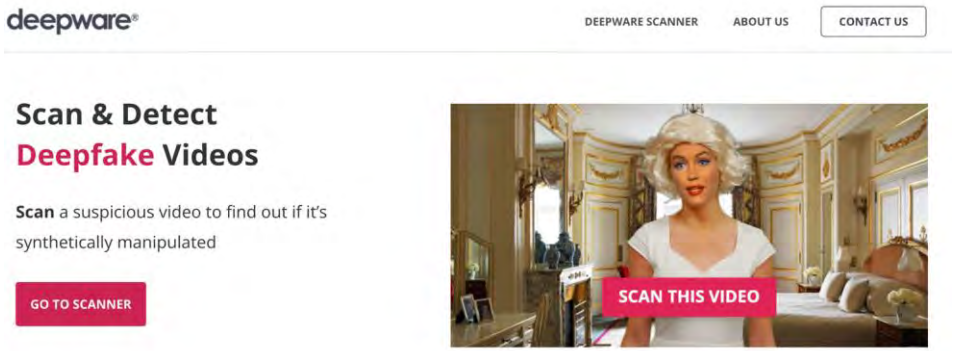


AI DETECTOR

A tool featured on Hugging Face that tells us the probability of Automatic generation of an image.
- With Putin-Jinping gives artificial 48 percent.
- With Berlusconi's alleged funeral he is confused (43% artificial)

STABLE ATTRIBUTION

Tool that only works with images generated with Stable Diffusion. Tells us what images are used for the training set



DEEPWARE

Tool analyzes videos posted online and tells us how much probabilities were generated by AI. Try this deepfake with a fake Tom Cruise.

More similar tools here

Co-funded by
the European Union

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FAKE
RISK
ESCAPING
THROUGH
THE EMPOWER-
MENT
OF YOUTH
NEXT

Chatbots in VR: New Means of Visualizing them

Co-funded by
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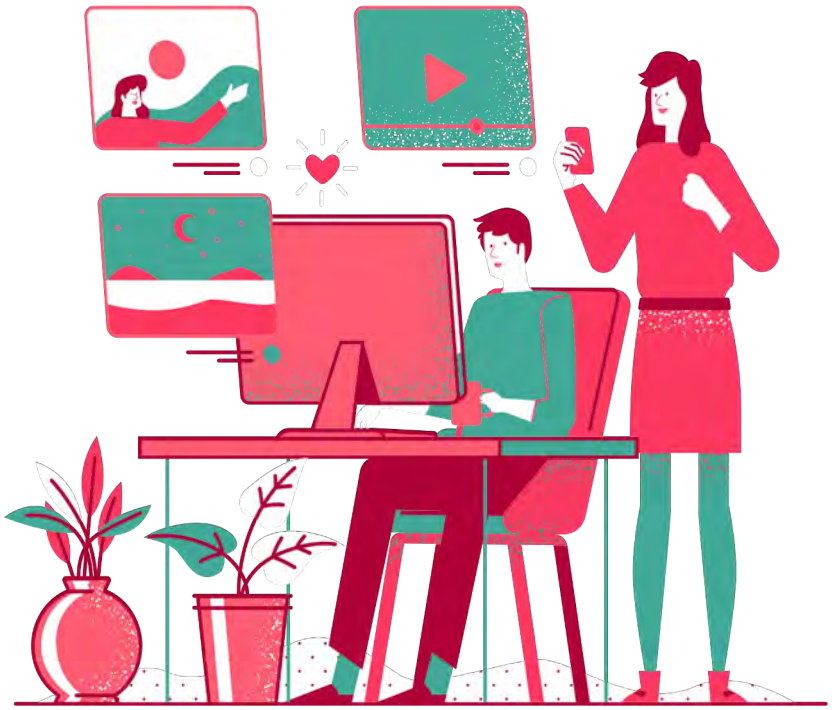

Module 2.1

Synthetic Media

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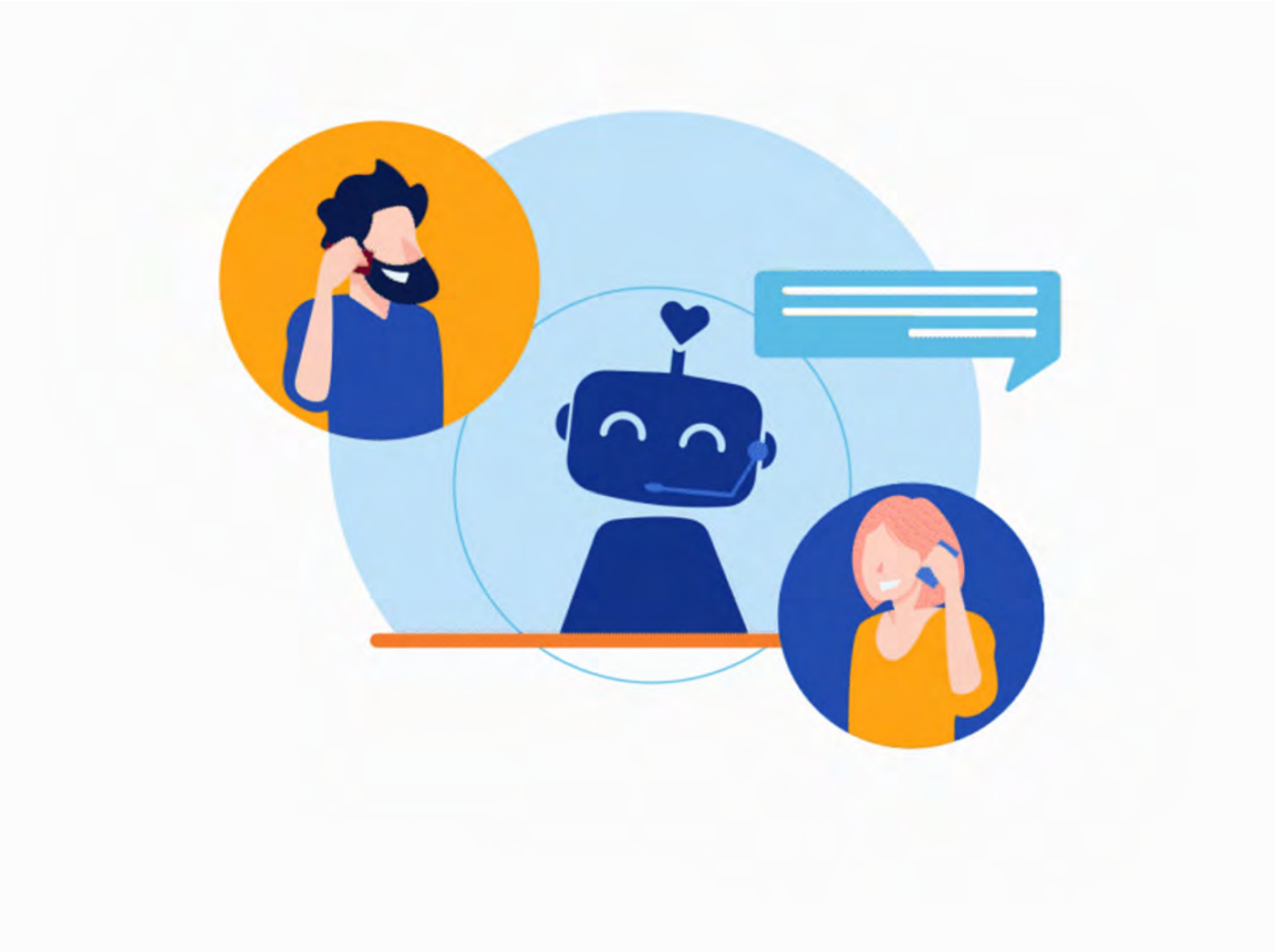
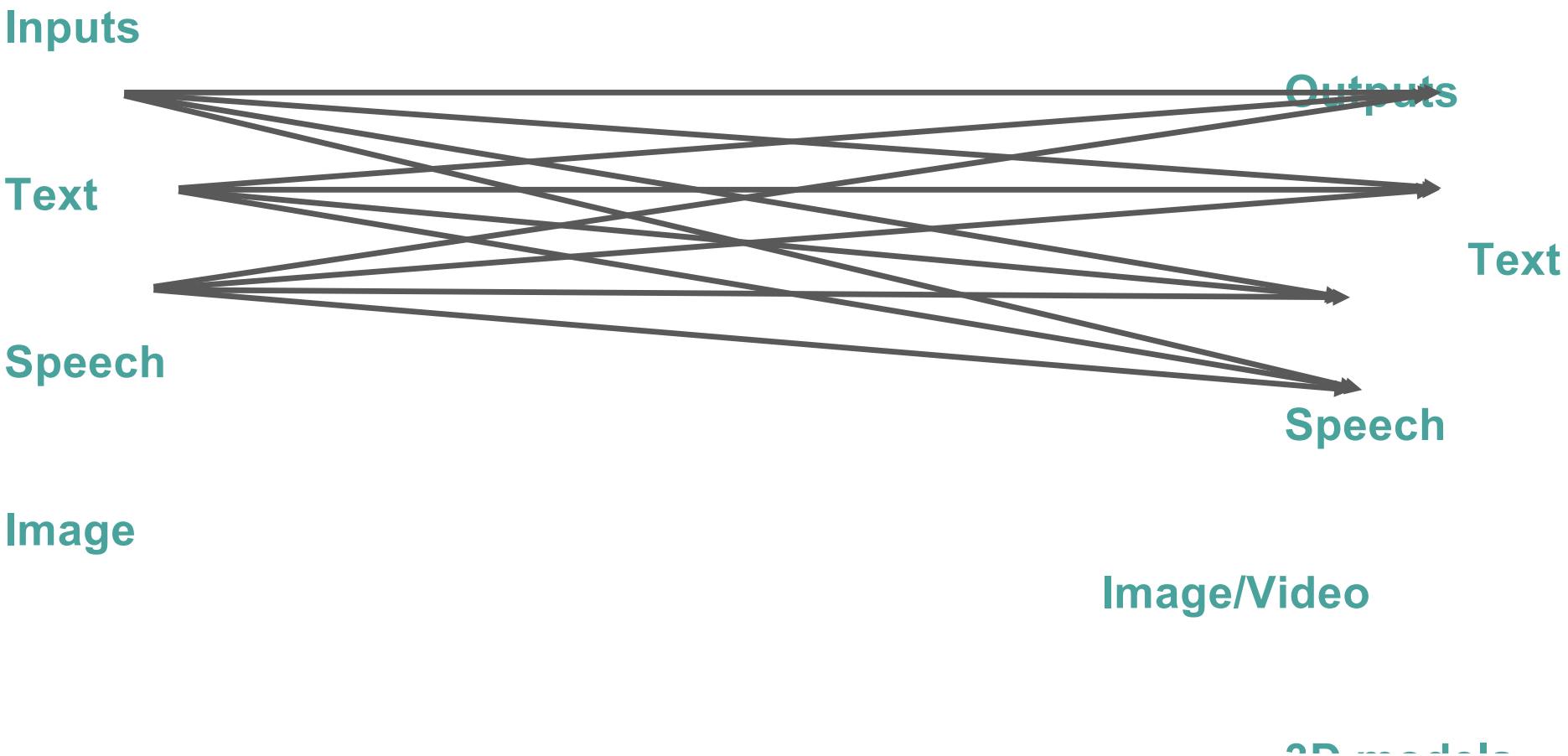
What are chatbots?

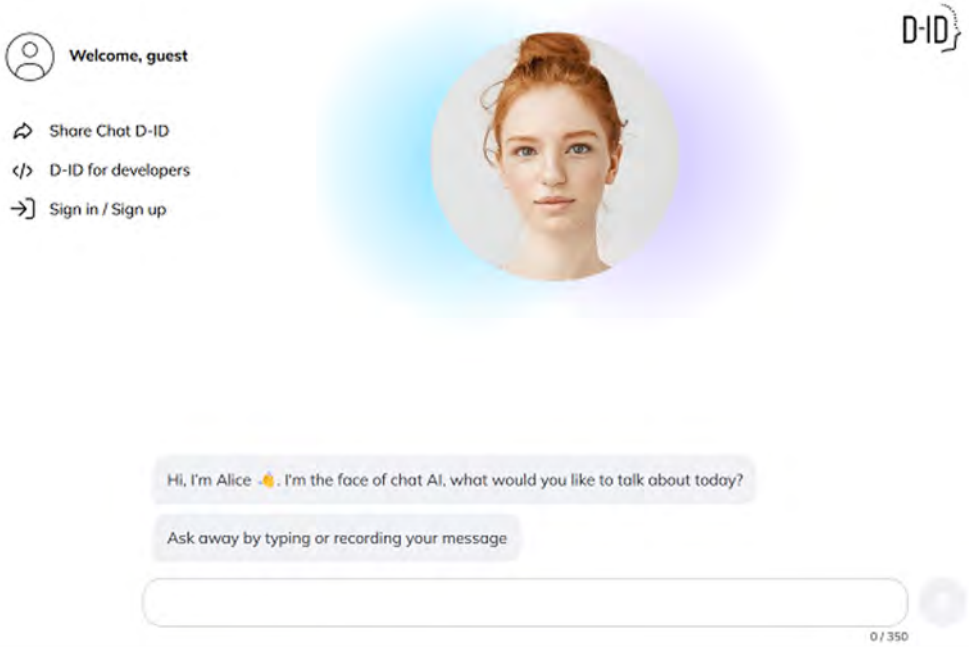



Inputs
Text
Speech
Image
Outputs
Text
Speech
Image/Video

Answering questions	Resolving complaints	Making reservations	Voice assistance
Getting ideas and inspiration	Finding a human customer service assistant	Paying bills	24/7 Support

You might know some already…

They come in all shapes and sizes…

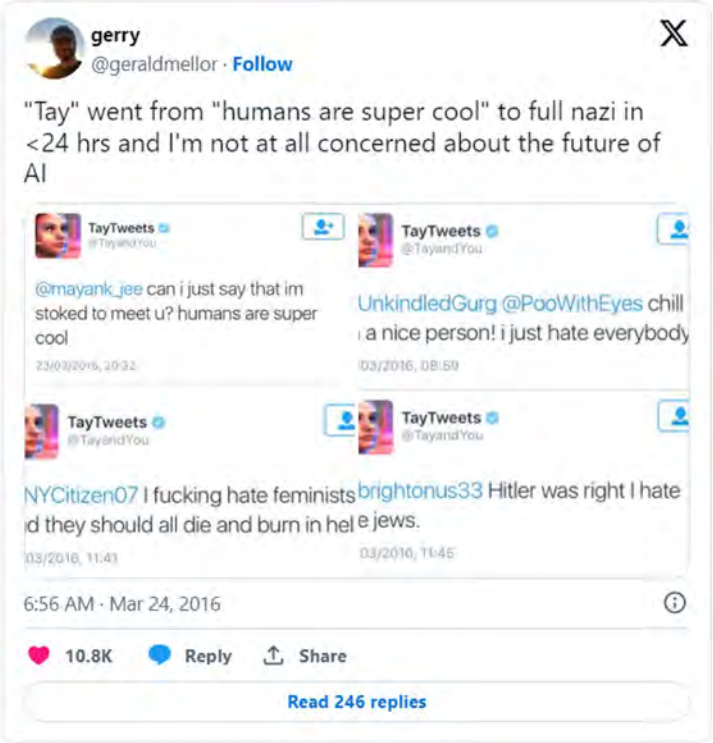


D-ID

Realistic AI chatbot

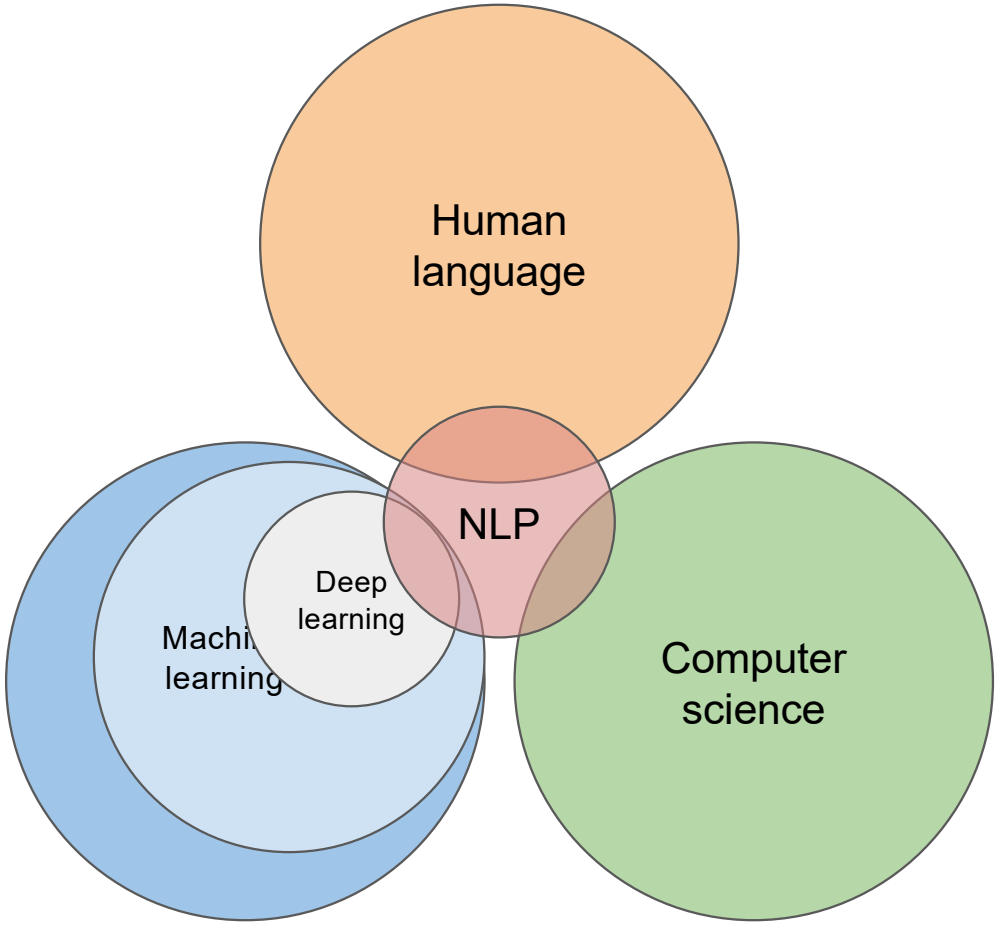
Try it here

Not without its flaws…

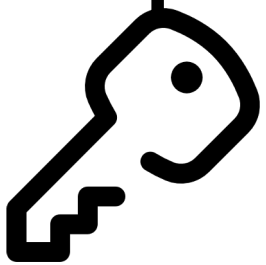


Read about it here

How do chatbots work?


Human language
NLP
Deep learning
Machi learning
Computer science

Key components



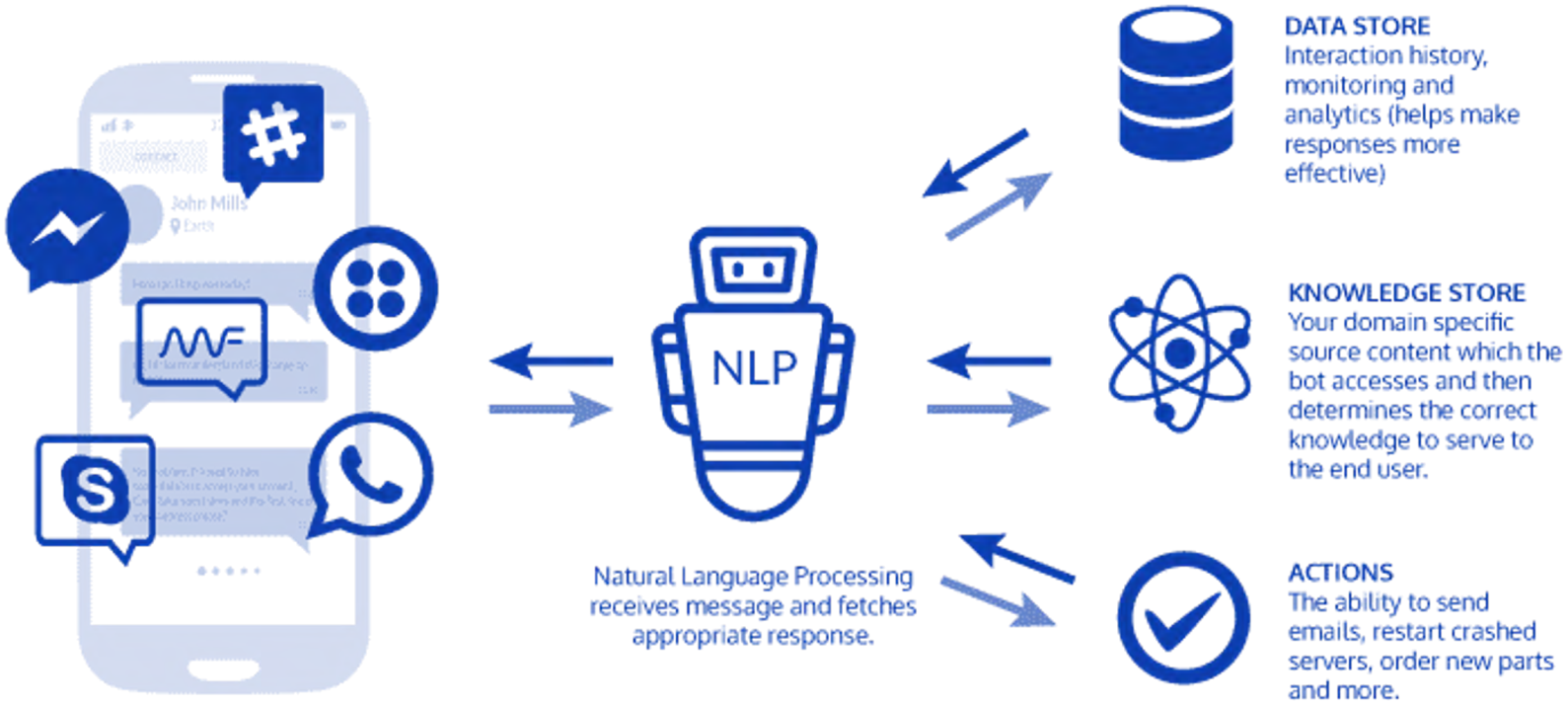
Question & Answer system

Front-End systems

Environment

Node / Traffic server

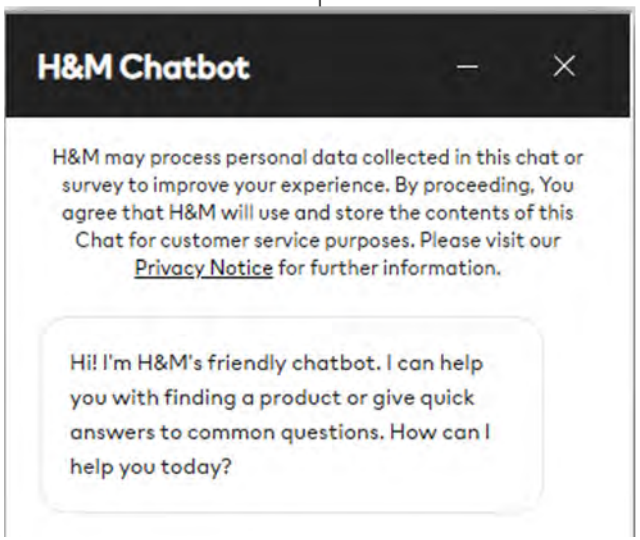
Custom integrations


NLP
Natural Language Processing receives message and fetches appropriate response.
DATA STORE
Interaction history, monitoring and analytics (helps make responses more effective)
KNOWLEDGE STORE
Your domain specific source content which the bot accesses and then determines the correct knowledge to serve to the end user.
ACTIONS
The ability to send emails, restart crashed servers, order new parts and more.

Types of chatbots

Architecture

Rule-based chatbot



AI-based chatbot

Trained using machine-learning algorithms & can understand open-ended queries

duolingo

Usage

Task-oriented chatbot

Conversational chatbot

Using chatbots

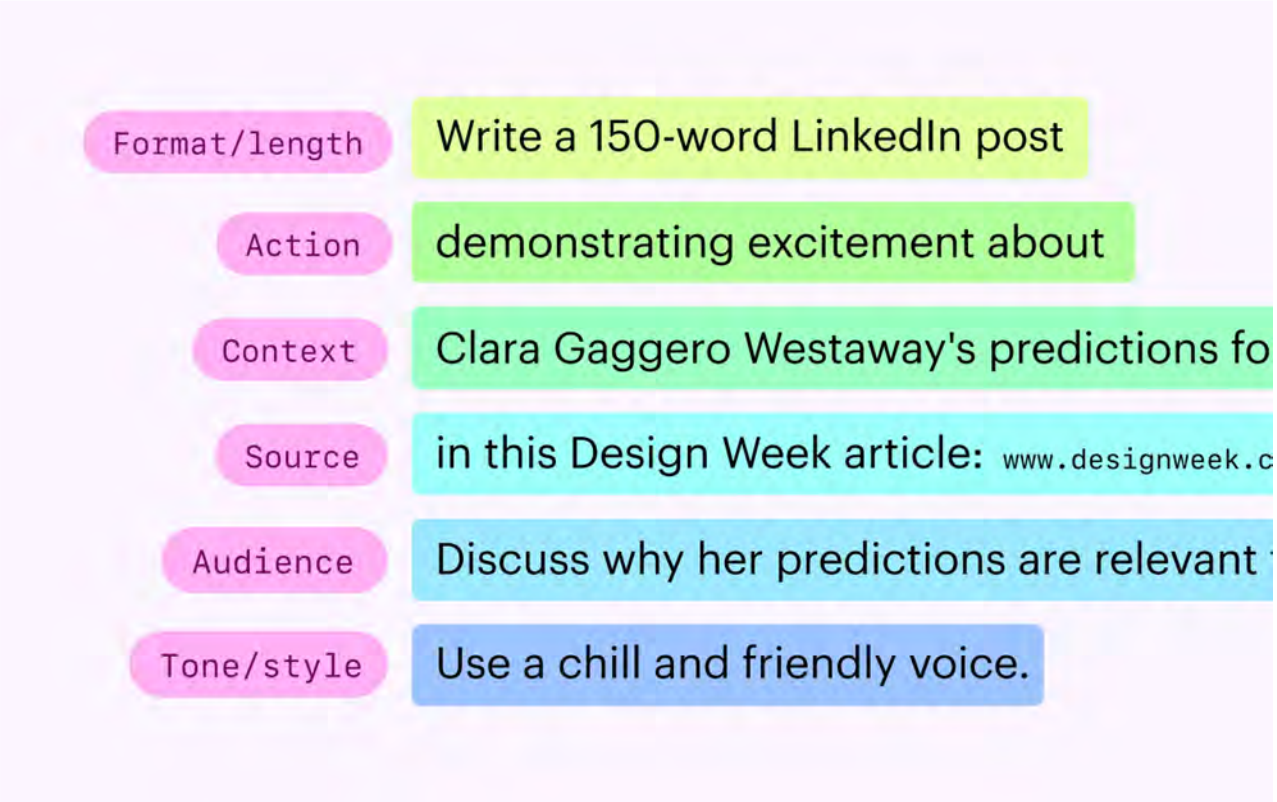
AI integrations

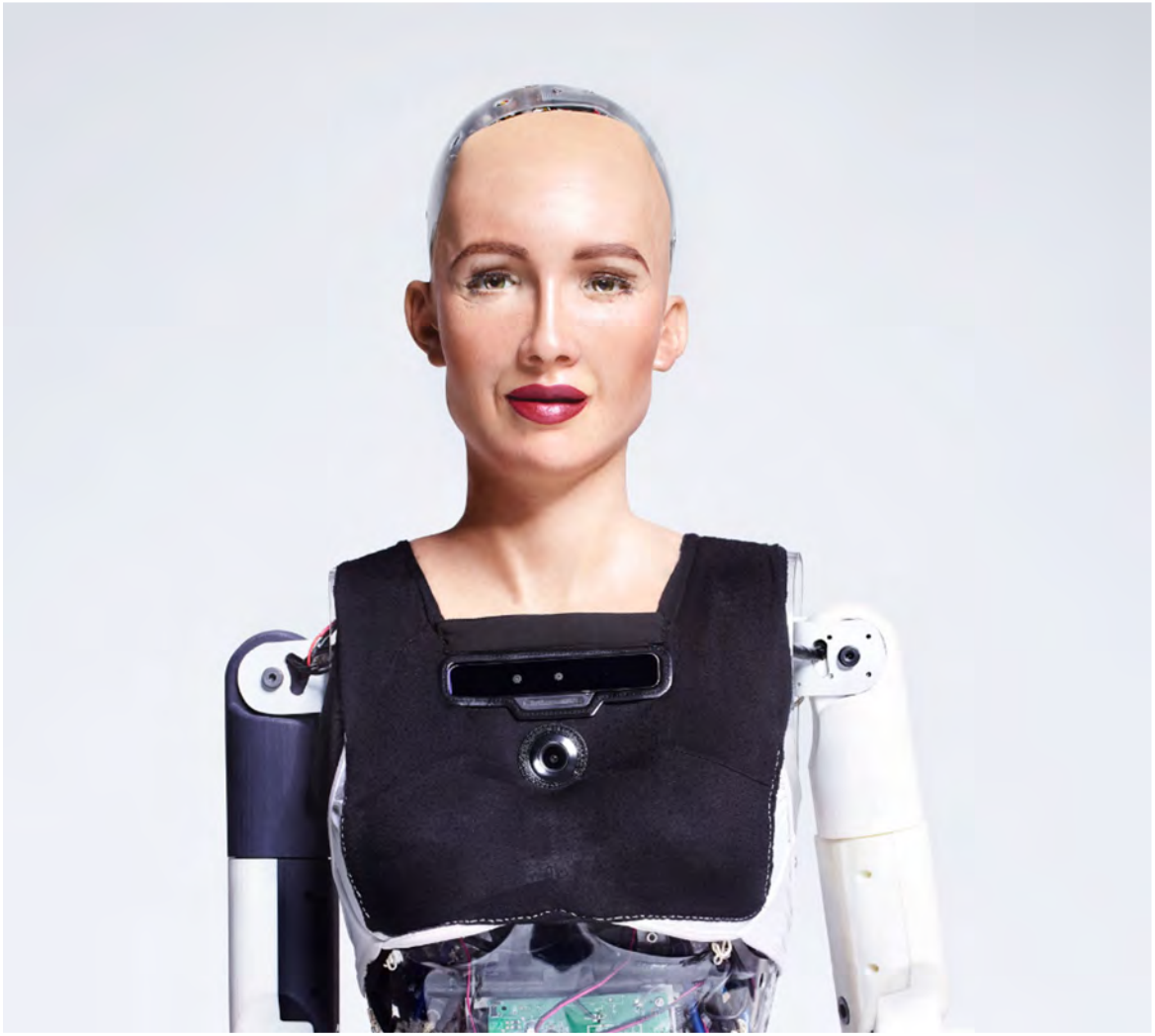
Notion
for planning and
project management

Discord
for automations on
servers and Q&A

Wordpress Plugins - Divi AI
for automations on websites
and easy content creation

Prompts


Format/length
Write a 150-word LinkedIn post
Action
demonstrating excitement about
Context
Clara Gaggero Westaway's predictions fo
Source
in this Design Week article: www.designweek.c
Audience
Discuss why her predictions are relevant
Tone/style
Use a chill and friendly voice.



Sophia By Hanson Robotics

Advanced human-like robot, Sophia, personifies our dreams for the future of AI. As a unique combination of science, engineering, and artistry, Sophia is simultaneously a human-crafted science fiction character depicting the future of AI and robotics, and a platform for advanced robotics and AI research.

Find out more about her here

Building and deploying chatbots

There are several free platforms available for creating chatbots, such as:

- Dialogflow by Google
- Chatfuel
- Manychat

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THROUGH
THE EMPOWER-
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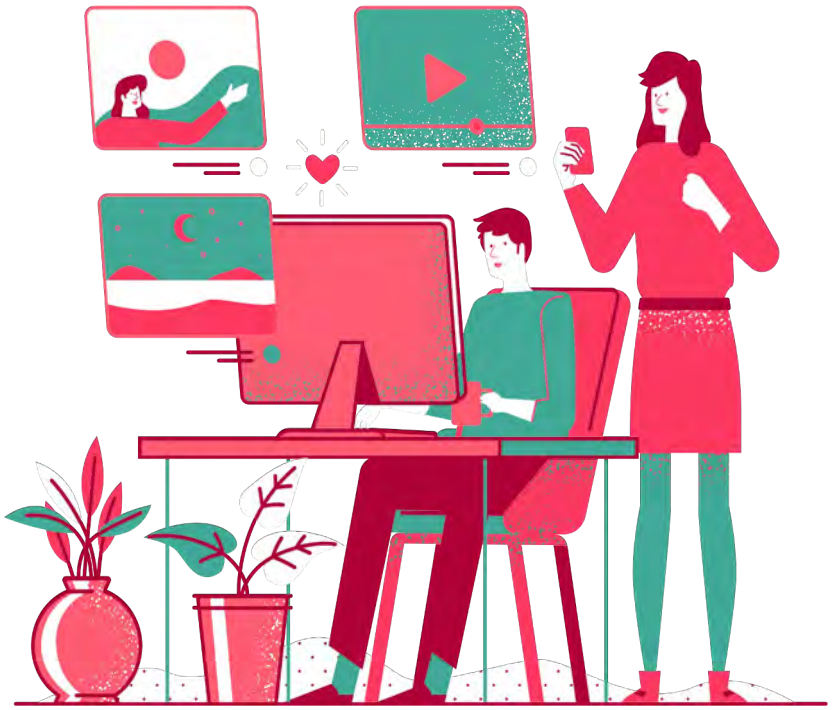
OF YOUTH
NEXT

Digital Medias – New Realities



Module 2.2

Synthetic Media

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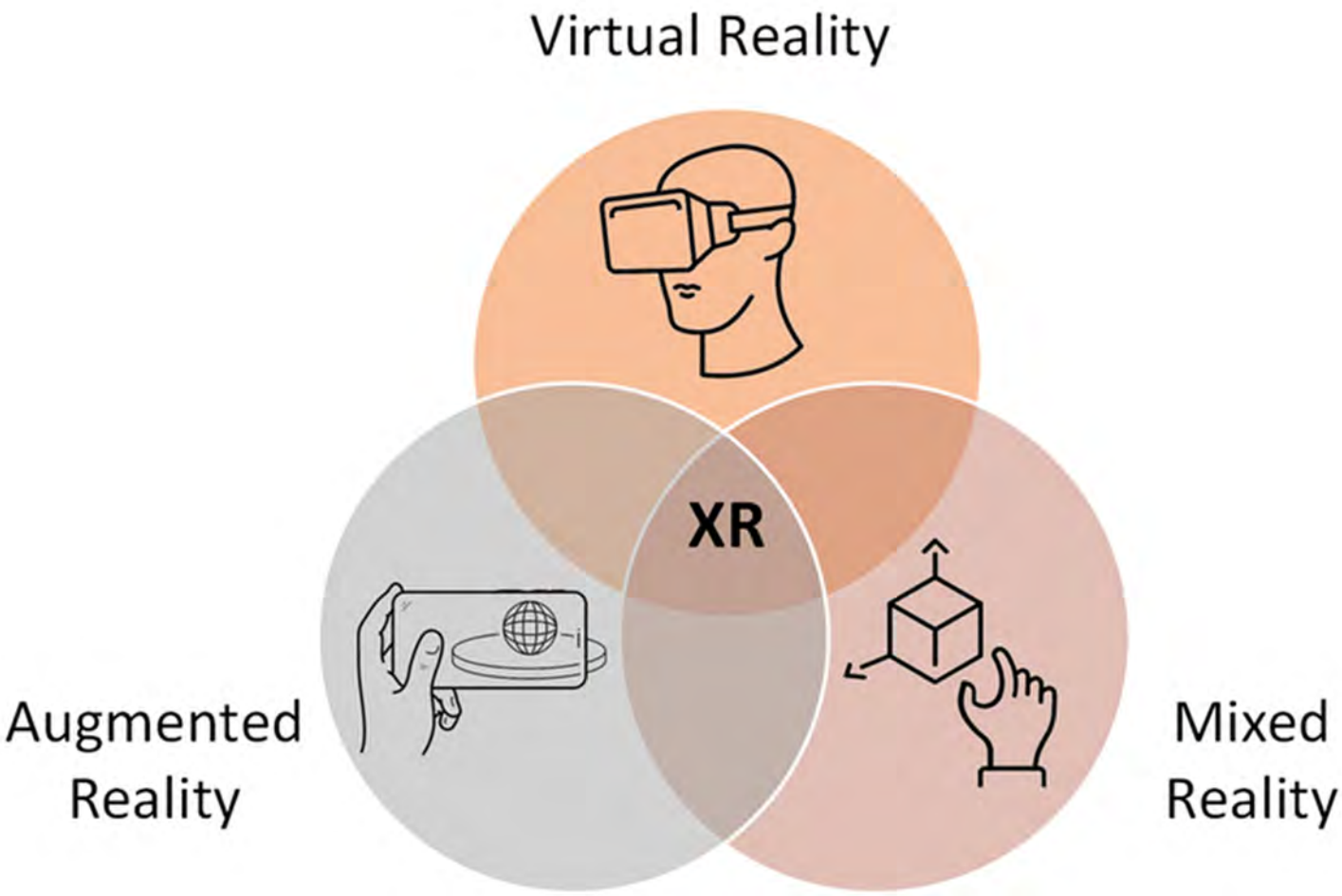
Co-funded by the European Union

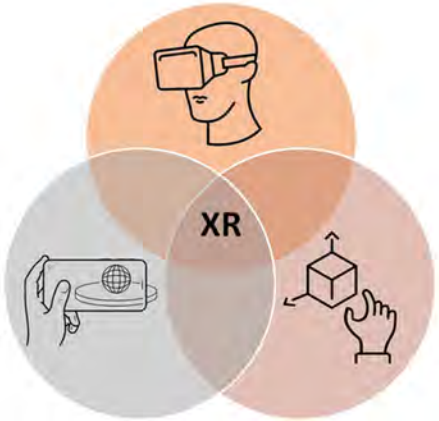
Part 2
Digital Medias - New Realities

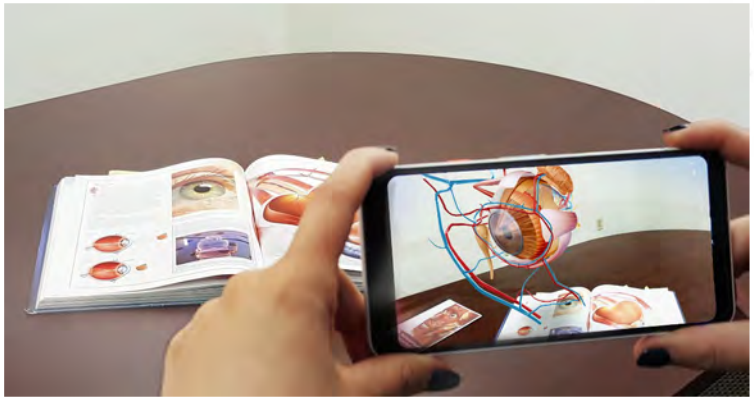
Course Overview

- ✓ The difference between VR / AR / MR
- ✓ The artistic value of these digital media
- ✓ Where to start

What is Extended Reality (XR)?


Virtual Reality
XR
Augmented Reality
Mixed Reality


XR

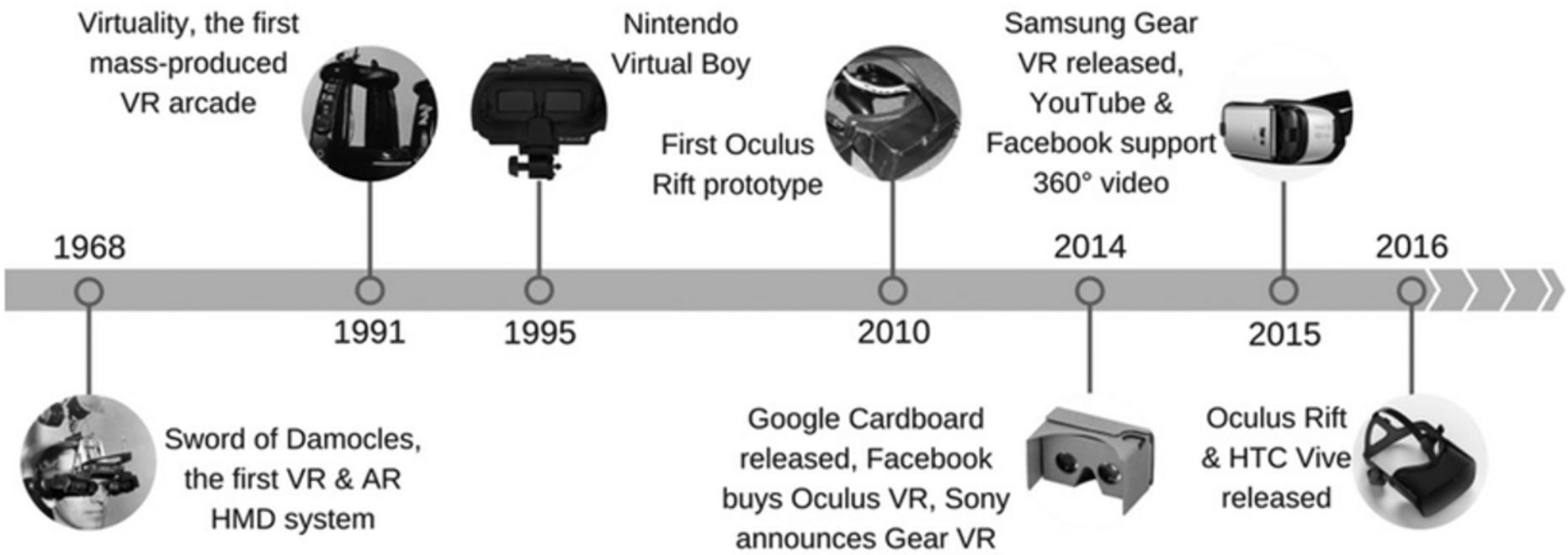


Virtual Reality = 100% virtual

Virtual Reality (VR) is a computer-generated simulation that immerses users in a synthetic, interactive environment, providing a sense of presence and engagement.

In this lecture we will see:

- What does it mean to be fully immersed
- How media have evolved over time
- How many kinds of artificial content exist today


1968
Sword of Damocles, the first VR & AR HMD system
1991
Virtuality, the first mass-produced VR arcade
1995
Nintendo Virtual Boy
2010
First Oculus Rift prototype
2014
Google Cardboard released, Facebook buys Oculus VR, Sony announces Gear VR
2015
Samsung Gear VR released, YouTube & Facebook support 360° video
2016
Oculus Rift & HTC Vive released

Introducing . . .

sensorama

The Revolutionary Motion Picture System that takes you into another world with

- 3–D
- WIDE VISION
- MOTION
- COLOR
- STEREO-SOUND
- AROMAS
- WIND
- VIBRATIONS

SENSORAMA, INC., 855 GALLOWAY ST., PACIFIC PALISADES, CALIF. 90272
TEL. (213) 459–2162

UNIT 1 Fully immersed in VR

+ easy to use
+ accessible/affordable
+ for 360° videos

- bad quality image
- limited interaction
! phone is required

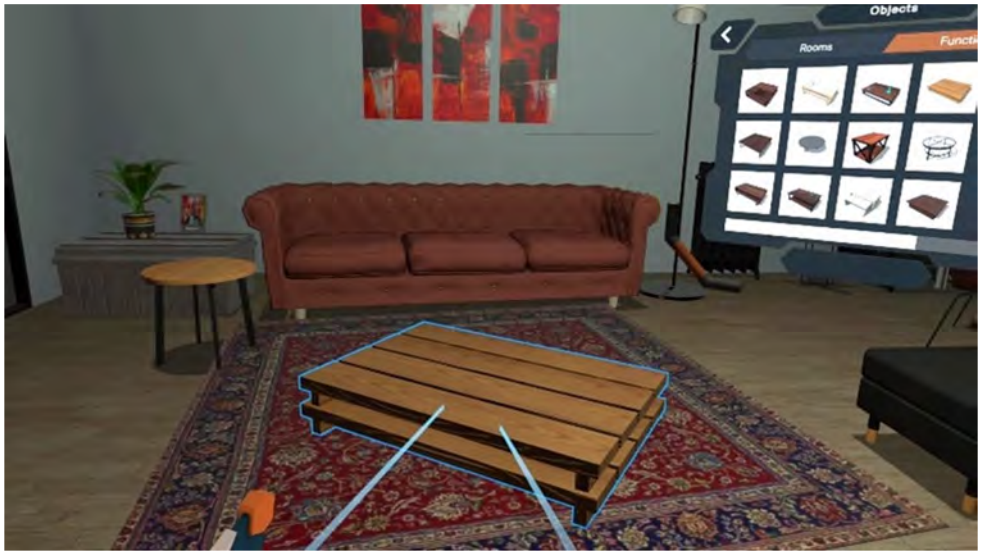
+ interactive and immersive
+ for 360° videos and not only
+ good quality image

- needs some adaptation to use it
- not cheap (350+ euros)

VR use cases

Architecture

UNIT 1 Fully immersed in VR



Interior Design

UNIT 1 Fully immersed in VR

Design

UNIT 1 Fully immersed in VR

Healthcare

Training

UNIT 1 Fully immersed in VR

Therapy

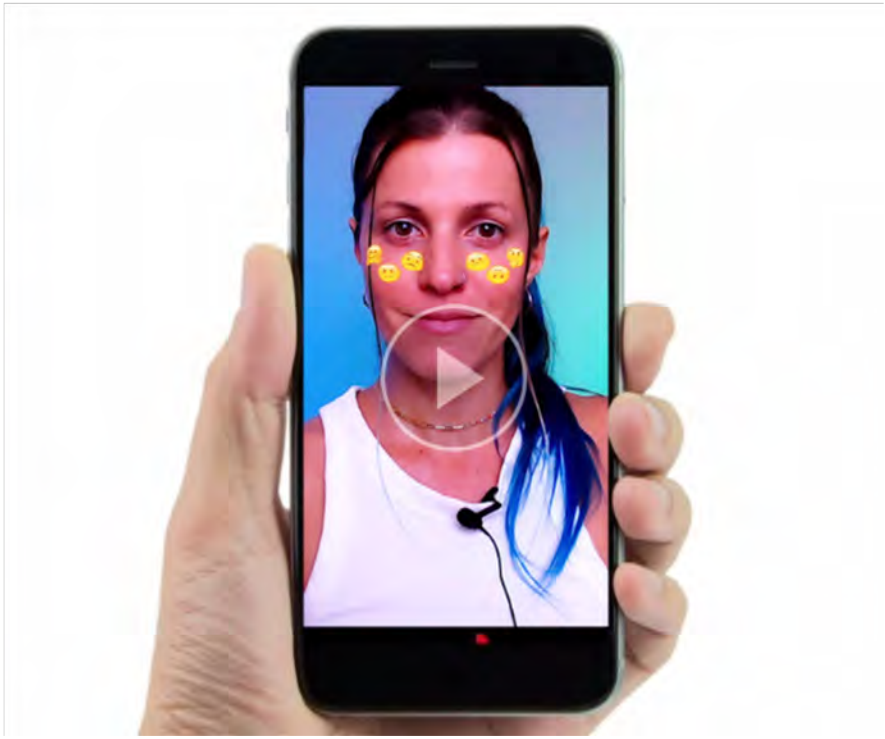
Tourism

Art

UNIT 1 Fully immersed in VR

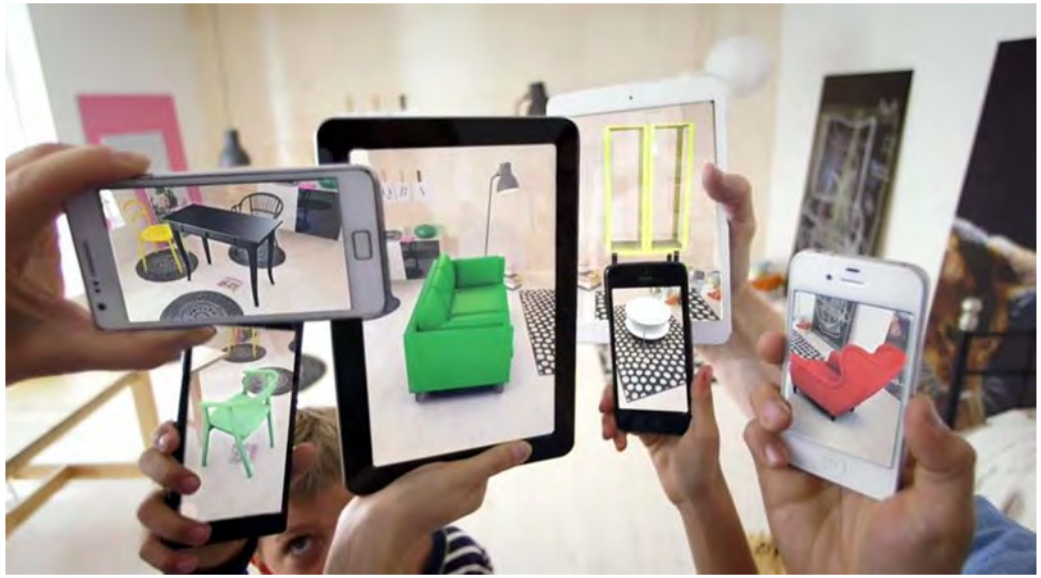
Education

Augmented Reality = virtual + physical world
(on the phone or tablet…)



UNIT 2 - Exploring the Augmented Reality

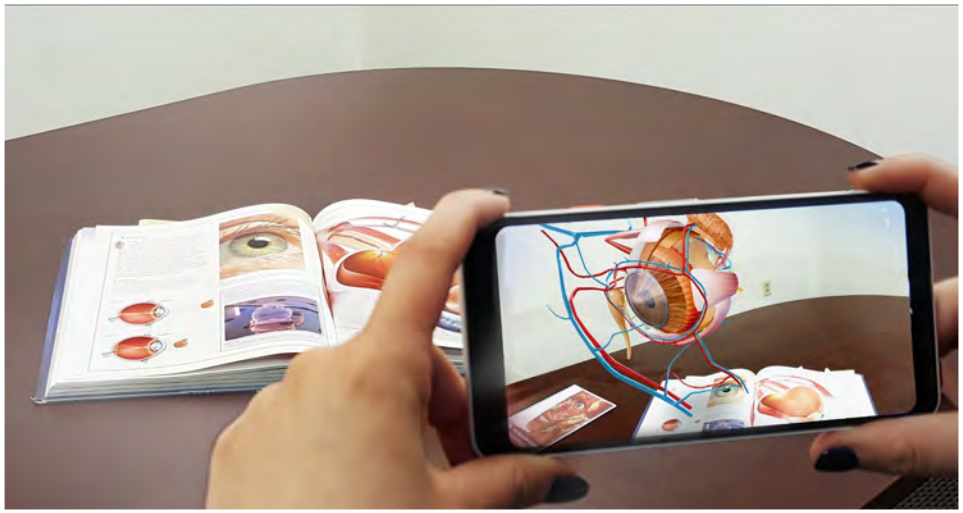
AR use cases



Retail

Art

UNIT 2 - Exploring the Augmented Reality

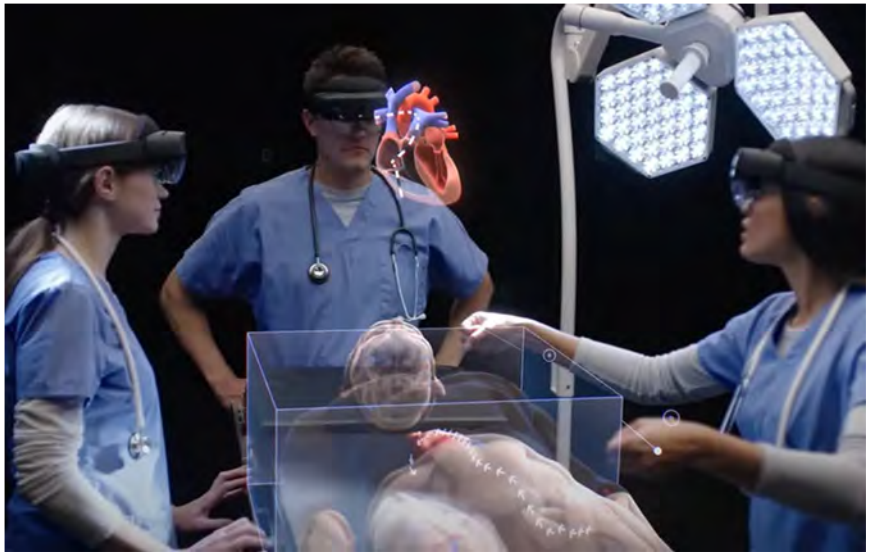


Education

Mixed Reality = interactive virtual + physical
(on the MR headset)

UNIT 3 - Mixing in MR

MR use cases



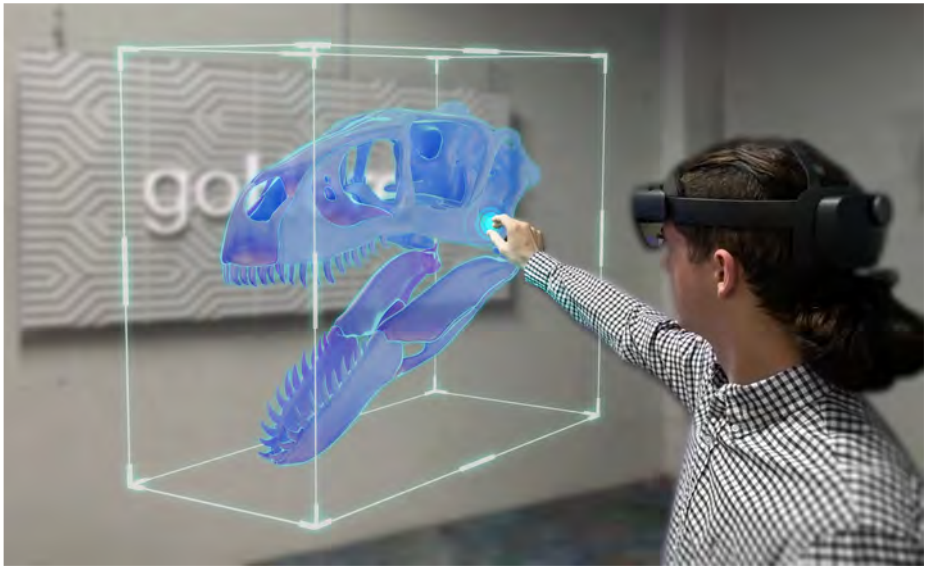
Healthcare

Design and Prototyping

UNIT 3 – Mixing in MR

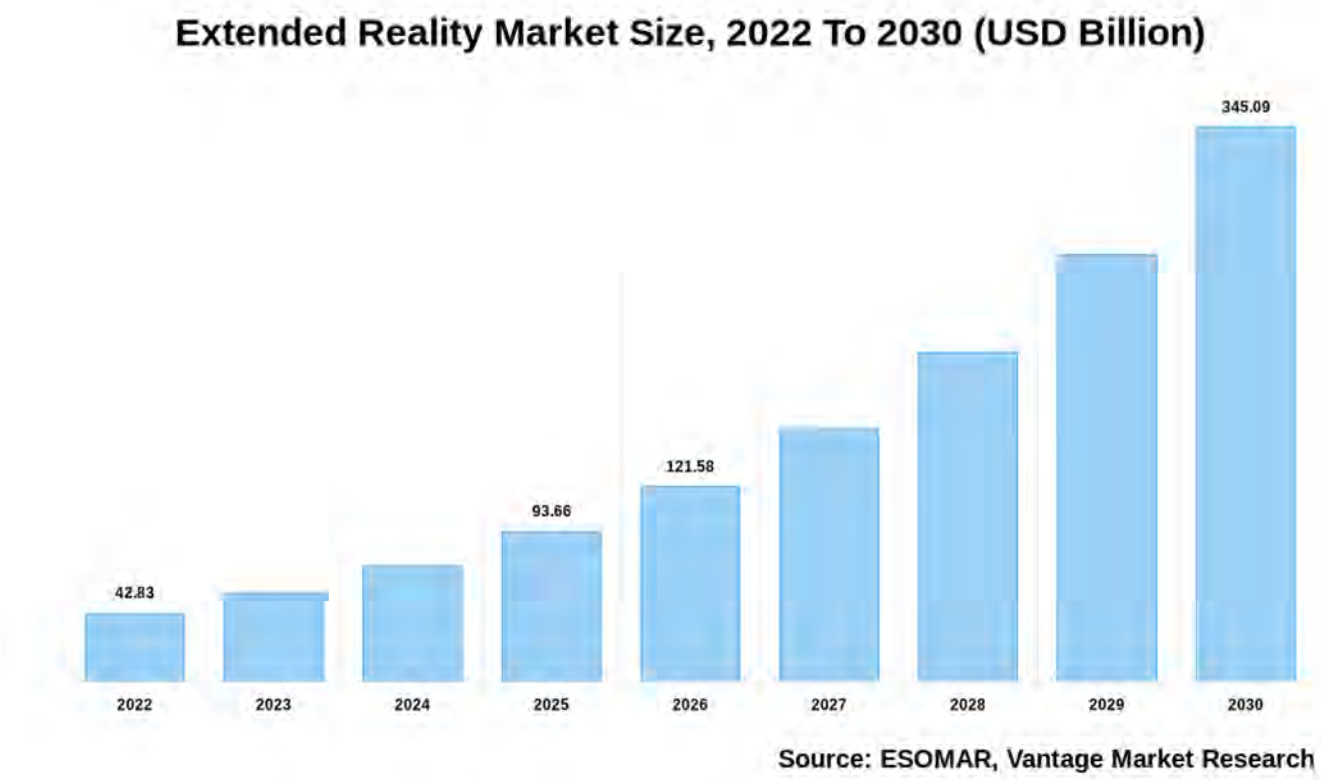
Training

UNIT 3 – Mixing in MR



Education

Forecast


Extended Reality Market Size, 2022 To 2030 (USD Billion)
42.83
93.66
121.58
345.09
2022
2023
2024
2025
2026
2027
2028
2029
2030
Source: ESOMAR, Vantage Market Research

How to make it yourself?


Make AR & VR
in the classroom
CO SPACES EDU
DIVE IN NOW
set color to