

Behind Digital Platforms

Educational Module – Presentation of the Module

INCA & SWISSINCA PROJECT



Project Context

The INCA and SwissINCA Projects

INCA Project

INCA is a **Horizon Europe** project (Increase Corporate Political Responsibility and Accountability), coordinated by the **University of Bologna**. It investigates the impact that digital platforms – including so-called big tech companies – have on democratic life across various European contexts.

SwissINCA Project

SwissINCA, funded by the **Mercator Schweiz Foundation**, was developed within the INCA project, expanding its activities with specific attention to the **Swiss context**. Together, the two projects form a coordinated research and educational initiative addressing the intersection of digital platforms and democratic participation across Europe.



What Gap Does It Fill?

Rationale and Need for the Module within Education

In a context of erosion of coordinated and equal political debate – further endangered by digital transformations – INCA and SwissINCA intervene in the educational field through a training module aimed at **lower and upper secondary schools**, raising awareness among learners of:

Individual & Societal Implications

The implications and consequences of the use of digital platforms in individual and societal terms, including opportunities and risks for everyday life and democratic participation.

New Governance Models

The forms and ways to support new models of governance capable of combining platform growth with social inclusion and citizens' participation in decision-making processes.

Interdisciplinary Design

The module is designed according to an interdisciplinary approach, accompanied by teaching materials, a user guide for teachers, and a selection of key theoretical references. It can be used autonomously and adapted to specific educational contexts.

Open Access & Availability

Fully available in open-access format on the INCA project website. At project end, materials will also be transferred to the "**Big Tech Watch**" think tank website – filling a gap in the European educational landscape for structured, freely available teaching support.

Skills and Knowledge Students Will Acquire



Opportunities & Risks

Recognise and evaluate opportunities and risks inherent in the use of platforms for individuals and society.



Platform Capitalism

Know the specific features of platform capitalism and how it differs from traditional economic models.



Big Data

Know how big data are generated and used by digital platforms to drive their operations and business models.



Main Platforms

Know which are the main platforms, how they operate, and with which infrastructures they function.



Behaviours & Citizenship

Know the individual and collective behaviours generated by platforms and their influence on political visions and forms of citizenship.

Expected Results and Use Modalities

Expected Learning Results & Applicability

The breadth and depth of learning vary depending on the number of teaching units implemented across the **4 available TUs**. Thanks to its flexible materials and free online availability, the module is also suitable for **non-formal education contexts** – as inspiration and a basis for discussion in seminars, workshops, and training events. It can equally be applied to public debate or focused reflection by associative, social, and organisational actors for policy-making meetings, consultations for social workers, public events, or third sector initiatives.

Delivery & Use Modalities

The module is designed primarily for **in-person use** through lessons with active methods, though preparatory or follow-up phases may also take place online – for example to consult videos, websites, and documentation, at the teacher's discretion. Each TU ends with a short, practical list of bibliographic suggestions for further exploration.

To obtain the most complete learning outcome, it is recommended to complete the **entire module**. It is equally possible and effective – though with more limited thematic coverage – to complete only some parts (e.g. one or more TUs), depending on the subject and objectives set by the teacher.

Duration and Required Tools

Overall Indicative Duration

The module consists of **4 TUs**, corresponding in total to **4–8 lessons of two hours each**. Depending on teaching timetables across various courses, institutions, and school systems, the number of lessons may be lower or higher. The suggested completion time is **2 or at most 3 weeks** if the teacher carries out the entire module.

Tools Required for Delivery

The module consists of 4 TUs structured as **PDF slides**, along with this guide and the glossary. The only tools necessary are a **computer (or laptop) and a connected projector**. Bibliographic references and some prompts within the TUs contain clickable links, for which an internet connection is required.

Only as a last resort – if none of the suggested tools are available – it is possible to resort to the **printed version**, bearing in mind that it is less effective: lower readability, difficulty managing many slides, impossibility of clicking on links, less enjoyable lessons, and less sustainable from an ecological point of view.

Structure of the Module

The module is divided into **four progressively thematic units**, each exploring a fundamental aspect of the world of digital platforms – from the economic model to infrastructures, from data to alternative perspectives.

1

TU 1

Platforms, Platform Capitalism, Tools & Implications

2

TU 2

BigData: What They Are, How They Operate & Are Produced

3

TU 3

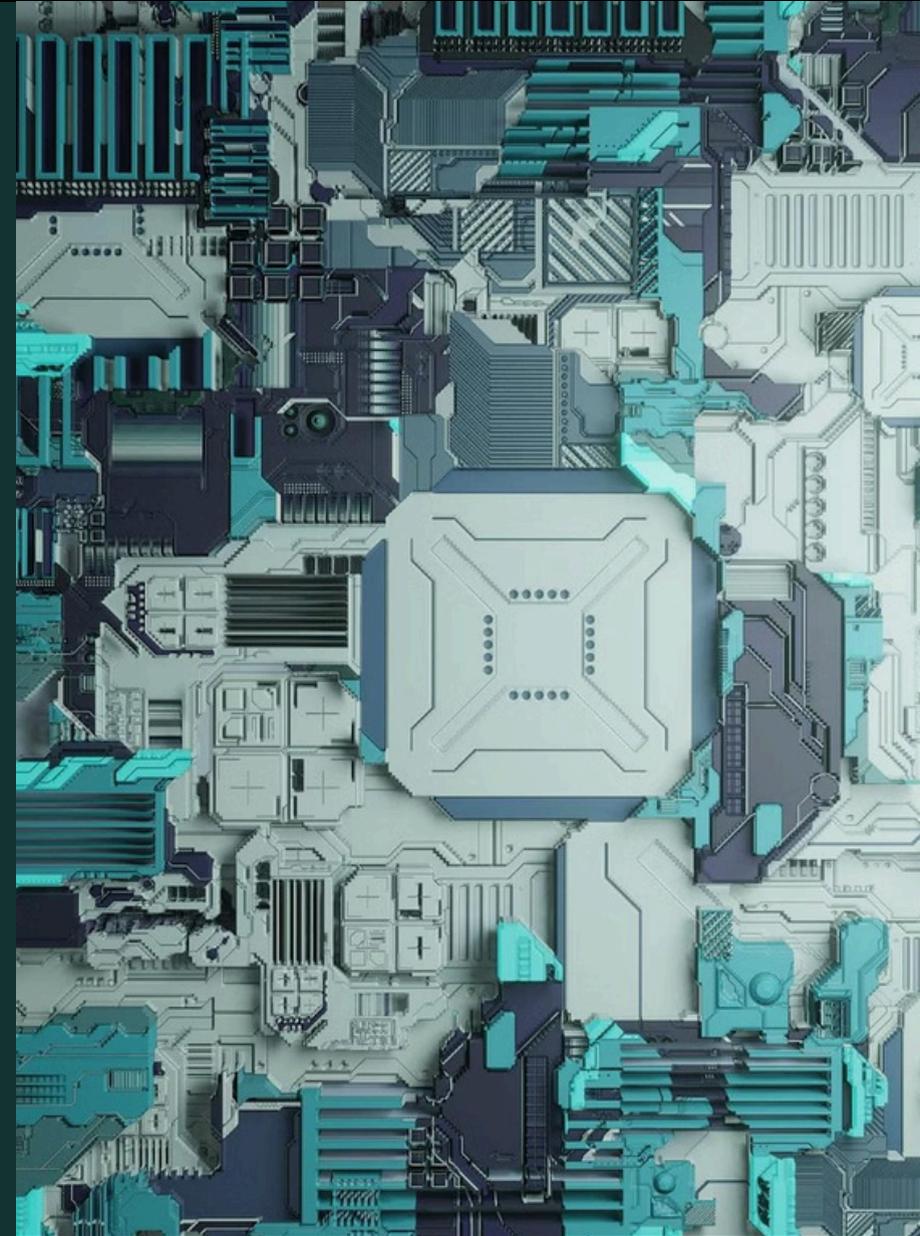
Infrastructures & Main Platforms

4

TU 4

Alternative Perspectives & Governance

THEMATIC UNITS: CONTENT OVERVIEW



TU 1 – Platforms, Platform Capitalism, Tools, Implications

TU 1 opens the reflective pathway by introducing what is meant by **platforms and platform capitalism**, what their main tools are, and what the implications of their use and spread are – outlining both opportunities and risks.

Objectives

- Understand the meaning of the main terms, concepts, and key words needed to frame the topic.
- Focus on aspects usually not explored in depth: the economic model, the definition of hybrid spaces, the difference between product and service.
- Reflect on the changes and influences that platforms exert on everyone's everyday activities.

Developed Skills

- Critical ability to identify characteristic features of the evolution of platforms.
- Ability to recognise the changes that platforms have brought to the economic system.
- Ability to link everyday activities and habits to the ways in which platforms operate.
- Ability to recognise how platforms influence the way of being citizens and exercising the dimensions of citizenship.

TU 2 – Big Data: What They Are and What They Are For, How They Operate, How They Are Produced

TU2 deals in particular with "big data". It briefly reflects on how they form the basis of the functioning and refinement of platforms, and how the latter are organised to obtain, process, and exploit such big data.

Objectives

- Understand what big data are and why they are fundamental to the operation of digital platforms.
- Focus on the production and organisational processes that big data fuel and help to refine.
- Reflect on how every everyday activity is connected and linked to the production, use, and collection of data.

Developed Skills

- Ability to recognise the opportunities and threats that big data generate for platform users and consumers.
- Ability to assess how and when the use of digital devices and online interactions generate data.
- Ability to recognise the strategies and methods through which platforms collect and use the data generated by users and consumers.

TU 3 — Objectives

Platform Capitalism

Understand the structure and logic behind platform-driven economic models.

From Sharing to Extraction

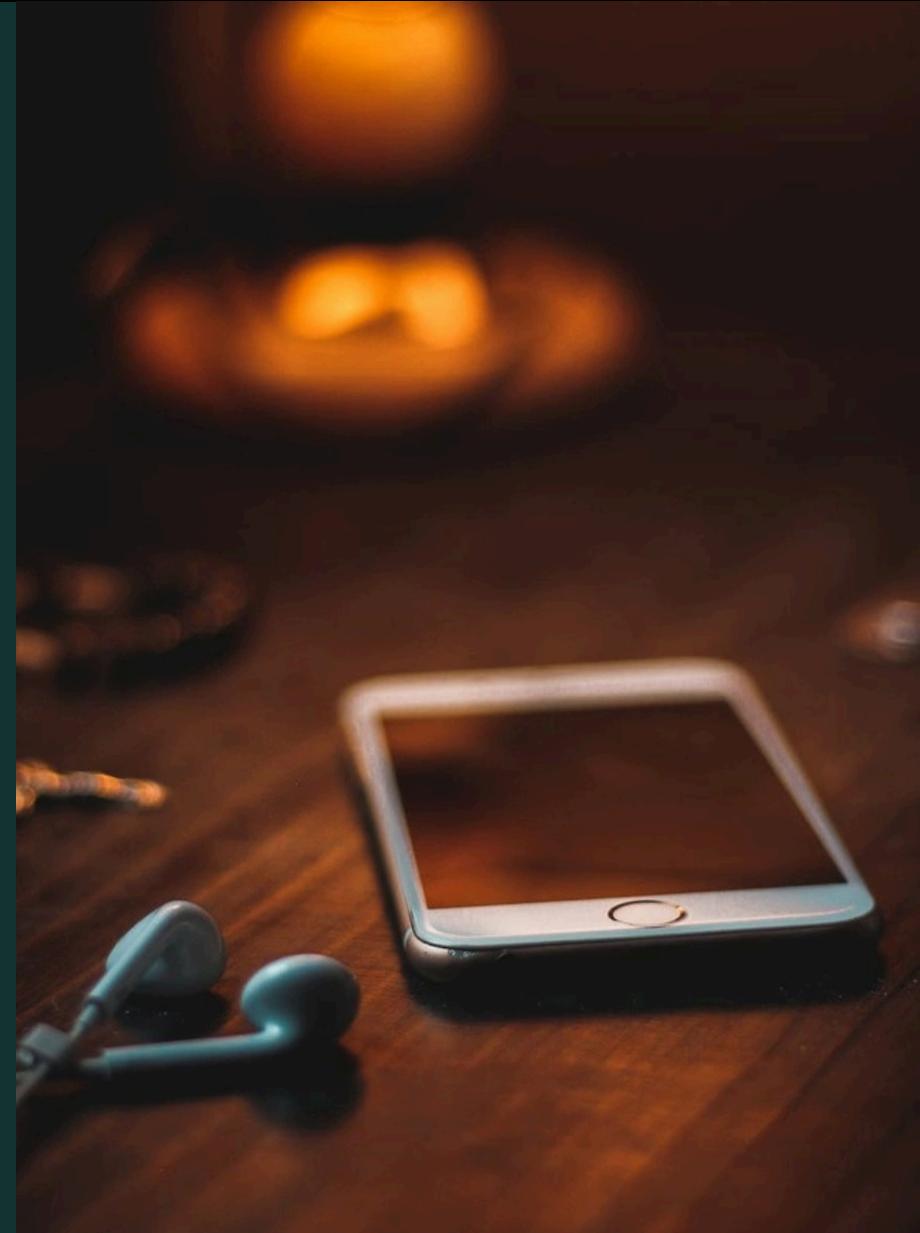
Analyse the evolution from the sharing economy to data exploitation and value extraction.

Rights & Democracy

Reflect on platform impacts on work, public opinion, rights, and the environment.

Case Studies

Examine Airbnb and Facebook to highlight concrete, often underestimated effects.



TU 3 — Developed Skills



- **Socio-Political Interpretation**
Critically read economic and political dynamics tied to digital platforms.
- **Urban & Labour Awareness**
Recognise how platforms reshape cities and transform working conditions.
- **Democracy & Citizenship**
Assess the effects of digital infrastructures on democratic participation.
- **Local-Global Connections**
Link global platform phenomena to everyday urban and local experiences.

TU 4 – Perspectives and Alternatives

Starting from the multifaceted presence of **BigTech** – particularly Amazon – TU 4 examines the risks of over-reliance on dominant platforms, their hegemonic nature, and presents **alternative platforms** that preserve plurality of actors and options at risk of being lost.

Big Tech in Context

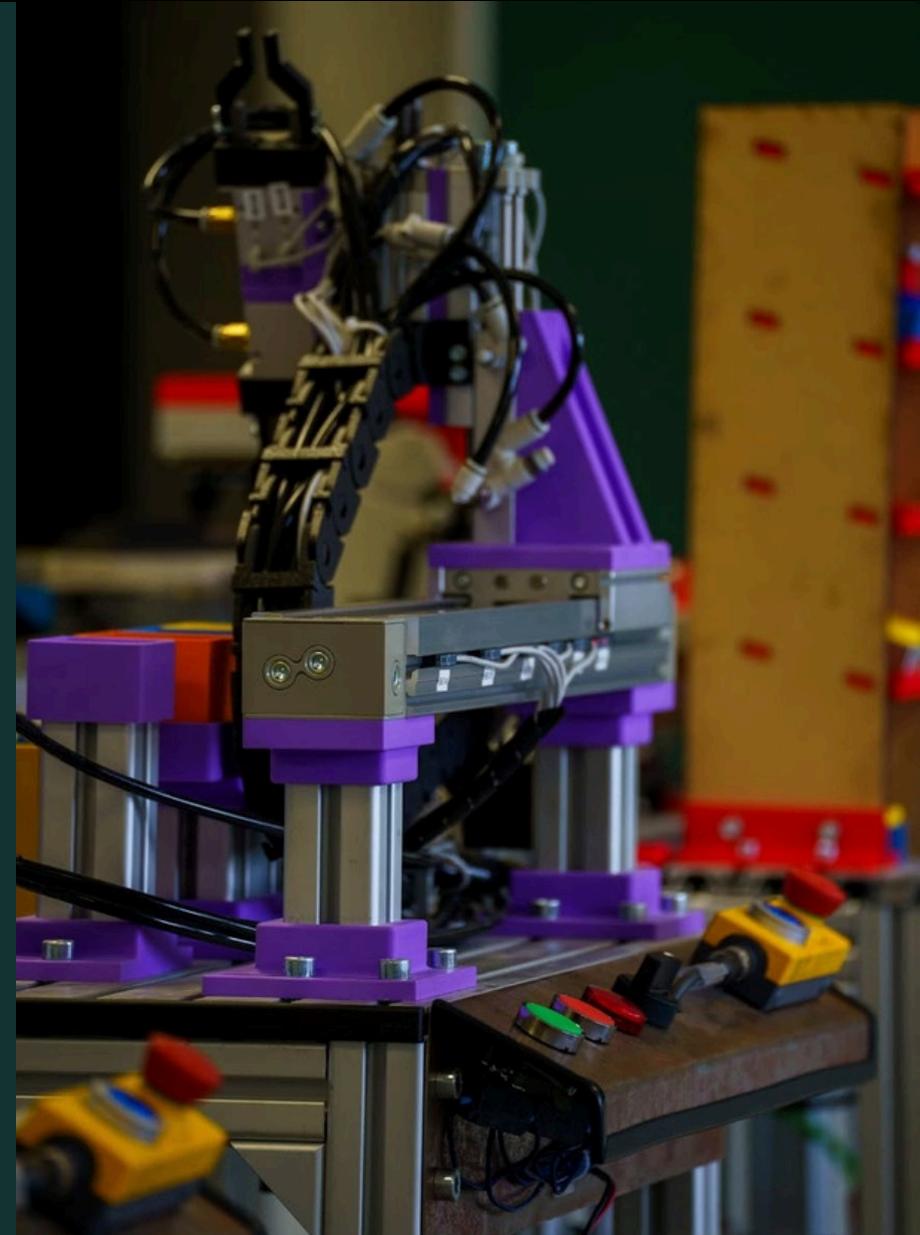
Understand how major platforms act within the economic landscape.

Risks & Drawbacks

Reflect on consequences of uncritical, total reliance on platforms.

Alternative Models

Explore independent platforms inspired by collective benefit principles.



TU 4 — Developed Skills



Multifaceted Analysis

Analyse the complex, layered aspects of the most widespread digital platforms.



Risk Recognition

Identify risks inherent in intensive and uncritical platform use.



Alternative Platforms

Consider and evaluate platforms beyond the dominant market players.

Formative Assessment Objectives

- Monitor understanding of content Promote
- critical reflection on platform capitalism Stimulate
- active engagement and self-assessment
- Help teachers adapt activities along the way

📄 Devote at least **15–20 minutes** per thematic unit to a reflective or evaluative phase.

Implementation Modalities

01

Discussion & Debate

At the end of each thematic unit.

02

Individual Outputs

Journals, maps, short written or visual reflections.

03

Peer Review

Co-assessment activities where appropriate.

04

Direct Observation

Ongoing teacher observation throughout the pathway.

Assessment Tools & Prompting Questions

1

Learning Journal

10–15min individual writing per unit. "What did I learn today? How does it connect to my life?"

2

Reflective Discussion

Plenary or small groups after key activities. "Who gains and who loses in the platform system?"



More Assessment Tools

Concept Maps

Visualise connections between key concepts – algorithm, gig economy, data, surveillance – using colours and symbols to distinguish actors, problems, and solutions.

Self & Peer Review

Rubric scored 1–6 for complex outputs (podcasts, articles).
Criteria: personal viewpoint, use of examples, clarity of argument, completeness.

Mini-Quizzes & Polls

Tools like **Kahoot** or **Mentimeter** at the start or end of a unit to verify understanding and activate recall.

Example Quiz – TU 3

A template quiz combining **basic knowledge**, **critical reflection**, and **motivated personal stance**. Some questions engage basic recall; others require complex reasoning.

1

Objective 1 – Key Concepts

Check acquisition of terms: digital infrastructure, supply chain, sharing economy.

2

Objective 2 – Critical Re-elaboration

Analyse cases: Airbnb, Facebook and their relationship to democracy.

3

Objective 3 – Personal Stance

Stimulate a motivated, argued personal position on platform effects.



Part 1: Basics



Part 2:
Reflection



Part 3:
Opinion

Quiz Sample Questions

Part 1 — Multiple Choice

- **Q1:** What is "digital infrastructure"? → The set of cables, servers, algorithms and apps enabling platforms to function.
- **Q2:** Main "raw material" of platforms? → Personal data.
- **Q3:** Sharing economy definition? → Goods/services shared between private individuals, online, for a fee or free of charge.

Part 2 — True/False + Reflection

- **Q4:** Airbnb is still a perfect sharing economy example. → **False.** Many apartments are used only for speculative short-term rentals.
- **Q5:** Who is pushed out by touristification? → Local residents and the most vulnerable groups.

Part 3 — Reasoned Opinion

"In what ways can digital platforms influence democracy?"

"What strategies would limit platform effects on the right to housing in cities?"

Assessed on: **relevance, argumentation, and use of examples** discussed in class.

Behind Digital Platforms: Glossary & Summary

A comprehensive reference guide covering key terminology across all four thematic units – from algorithms and platform capitalism to cloud infrastructure and digital democracy.



TU 1 Glossary

Core concepts underpinning the political economy of digital platforms and their societal impact.

Algorithm

Set of automatic rules or instructions, based on predefined programming calculations, that a digital device follows to solve problems, process inputs, process data or perform specific operations (such as filtering content or assigning deliveries).

Archetype

Original model, primitive or symbolic idea from which subsequent forms derive.

Platform Capitalism

Economic model based on the collection and use of data through digital platforms to generate profit and control.

Market Capitalisation

Market value of a company's share capital – the total value of its shares.

Globalisation

Process of economic, cultural and political integration on a global scale.

Digital Infrastructure

Assemblage of devices and software required for the operation of digital services.

Manipulation of Democracy

Alteration of democratic processes through control or distortion of online information.

Hi-Tech

High technology refers to the most advanced technology at a given time. This changes continually over time as technology progresses.

Economic Polarisation

Increase in economic inequalities, with wealth concentrated in a few hands and the progressive impoverishment of parts of the population.

Mass Profiling

Large-scale collection and analysis of users' personal data to define individual or collective profiles and track behaviours, preferences and habits.

TU 2 & TU 3 Glossary

Keytermsspanningbigdata,labourplatforms,artificialintelligence, and the platformisation of society.

Big Data

Large volumes of heterogeneous and constantly increasing data requiring advanced technologies — such as AI and machine learning — to be collected, analysed and used.

Artificial Intelligence (AI)

Set of technologies and processes that allow machines to solve problems or make decisions by storing and processing large quantities of data.

IoT

Network of physical objects connected to the internet that collect and transmit data — for example from cars, household appliances, etc.

Bot

Short for robot; a program that imitates or replaces the behaviour of human users, performing simple activities at much higher speed than a person can.

Cache

Temporary memory used by devices to store recent data or operations, in order to speed up future access.

Digital Gang-Mastering

Form of labour exploitation in the context of digital platforms, where control is entrusted to algorithms rather than to informal labour brokers.

Dark Kitchen

Industrial kitchens dedicated exclusively to the preparation of food for takeaway and home delivery via apps.

Developer

Software developer — the person who designs and builds applications, platforms or digital systems.

Mapping

Process of collecting, visualising, processing and analysing data to trace users' behaviours, habits or movements.

Platformisation

Process through which political processes, services, spaces and social relations are structured and regulated through digital platforms.

TU 2 & TU 3 Glossary

Telemetry

Technology that allows the remote collection and transmission of data from devices (e.g. cars, airplanes, smartphones), often used for the processing and management of big data.

Data Mining

Literally, the extraction of data as if they were a mineral in a mine. Procedures used to extract useful information from large amounts of data (big data).

Delocalise

Move production to where conditions are more advantageous, for example where labour costs are lower.

Micro-Targeting

Sending targeted advertising to individual users or small groups based on a detailed analysis of their data and preferences.

Polarisation

Tendency to gradually adopt increasingly extreme and opposing positions within a group or society.

Supply Chain

A complex logistic system consisting of facilities that convert raw materials into finished products and distribute them to final consumers.

Infrastructure

Set of capital goods that provide a range of essential services for the functioning of the economic system (e.g. roads, communication networks, power plants).

Liberalisation

Removal of rules and constraints in order to allow greater economic freedom.

Investor

Someone who uses money with the aim of making it grow, that is, increasing the initial amount.

Touristification

Set of architectural, urban, social and economic transformations due to the substantial conversion to tourist use of part of a city, an entire city or a larger territory.

TU 4 Glossary

Terms relating to digital infrastructure, governance, labour rights, and alternative models of organising the digital economy.

Cloud

Set of hardware grouped in large warehouse-like structures (data centres) that make it possible to store and access data via the internet, rather than on local devices.

Cyber-Attack

Hostile action carried out through IT means to damage, block or steal data from digital systems.

Data Governance

Management and control of the ways in which data are collected, used, shared and made accountable within an organisation or between multiple actors.

Digital Democracy

Organisational forms and models of political governance in which digital tools and platforms are used to foster citizens' participation in decision-making processes.

Holding

Parent and reference company that controls a set of different companies (even in different sectors) linked by ownership ties.

Open Source

Software whose source code is open and modifiable by anyone, often developed collaboratively and free of charge.

Renegotiation

Discussion leading to a new formulation of a pact or contract, verbal or written, explicit or implicit.

Trade Union

Associations that defend the interests of the professional category they represent.

Stakeholder

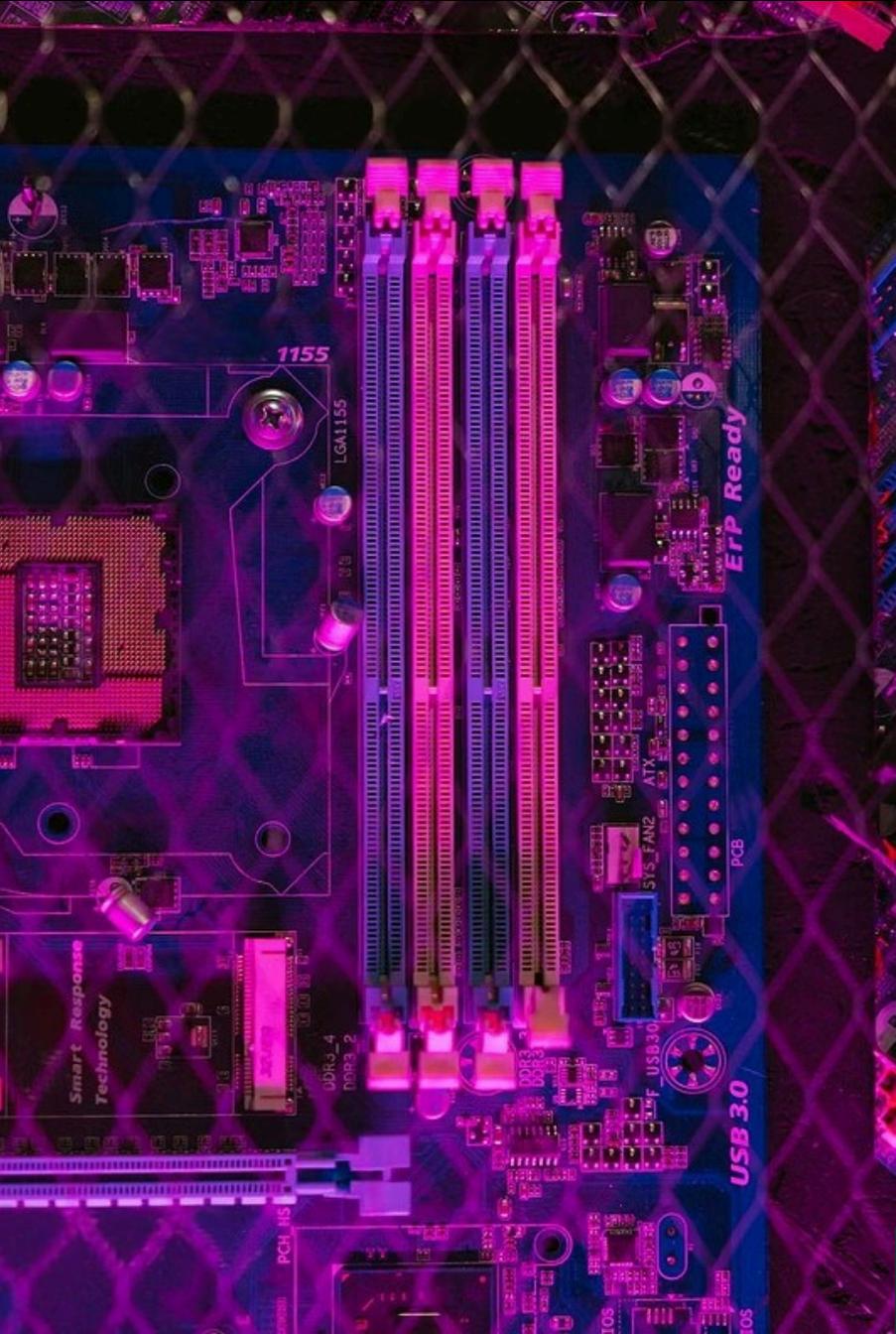
Anyone who has an interest in an organisational, economic or management activity or project, and who may directly or indirectly benefit from or be harmed by that activity or project.

Streaming

Technology that enables real-time online access to audio or video content without having to download it beforehand.

Tertiarisation

Process of transformation of the world of work that results in a clear increase in workers employed in the tertiary (services) sector compared to those in agriculture (primary) and industry (secondary).



Summary: Behind Digital Platforms

The educational module "Behind Digital Platforms" is fully available in a dedicated section of the INCA project website, where all materials are provided in an open-access format. At the end of the project, the materials will also be transferred to the website of the "Big Tech Watch" think tank.

4

Thematic Units

Platforms, Big Data, Infrastructures,
Alternative Perspectives

4–8

Two hours each, for a total of 2–3 weeks of
learning

Free and Open Access

Available online for teachers throughout Europe at no cost, in open-access format.

Interdisciplinary

Suitable for geography, history, civic education, economics, computer science and more.