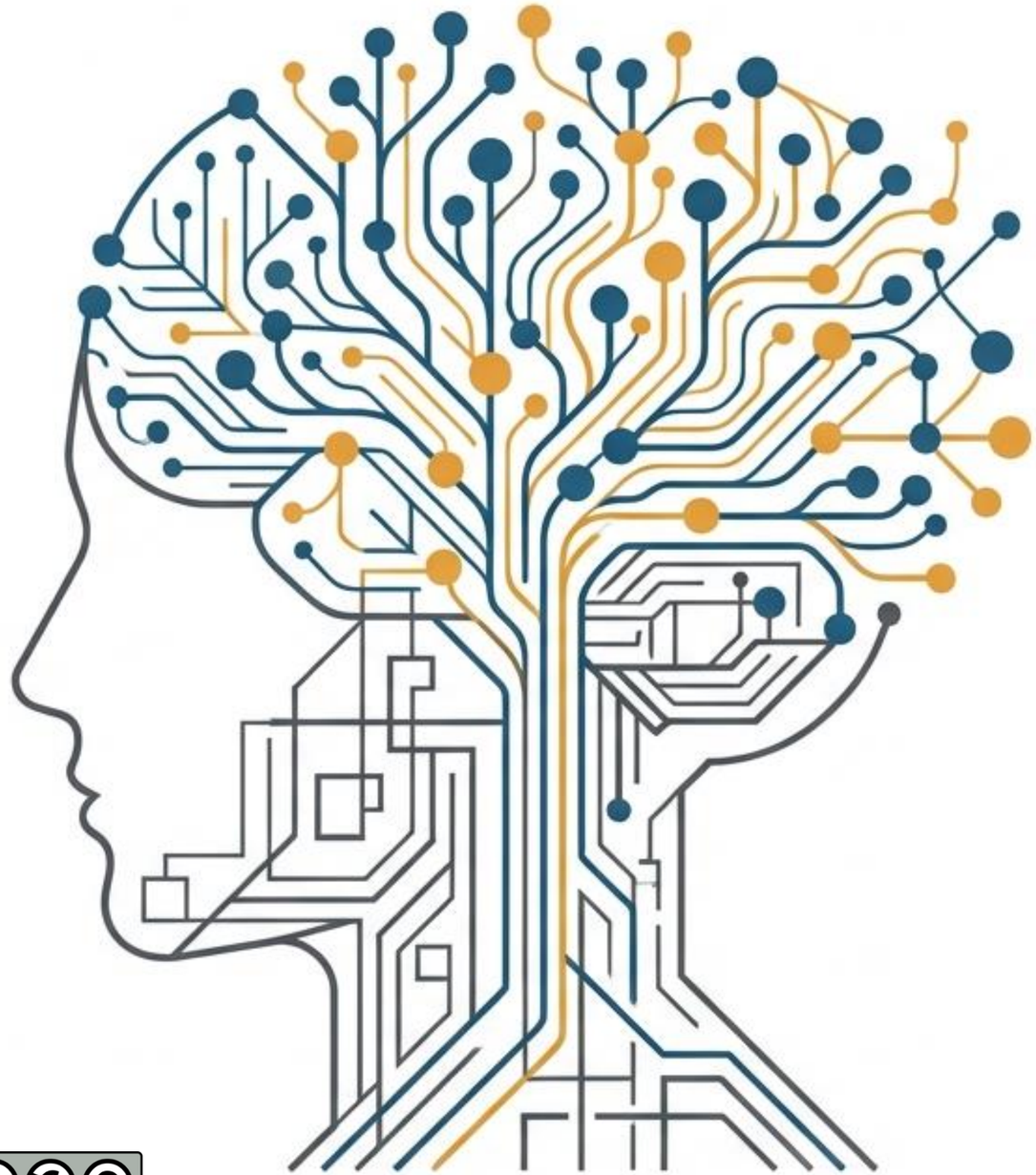
Digital Humanities:

An Educational Purpose for ICT

From information acquisition to the development of students' technological and multimodal competencies



Erasmus+ KA220 Project – *Digital Humanities*

UNIVERSIDAD COMPLUTENSE MADRID

FACULTAD DE EDUCACIÓN Centro de Formación del Profesorado UNIVERSIDAD COMPLUTENSE DE MADRID

DIGITAL HUMANITIES

Co-funded by the European Union

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Madrid, 19th and 20th March, 2026

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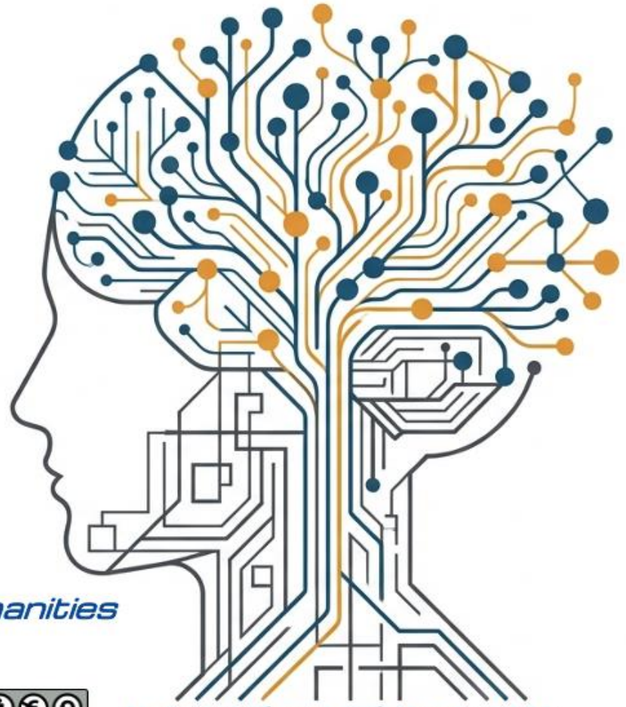

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Digital Humanities

Erasmus+ KA220 PROJECT

Universidad Complutense de Madrid 2026 Meeting

18th and 19th March 2026

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Adrián Vidal
Marta Vega

UCM

Laura Rayón, Pep Hernández
Ana de las Heras, Giulia Meneghel,
Carlos Barroso, Esther Barroso

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MEET THE

DETECESE

TEAM

A research group comprising a team of academics who are dedicated to tackling socio-cultural inequalities through education and technology.

It has carried out various R&D&I projects funded through competitive calls for proposals, and has an extensive list of publications in prestigious publishing houses and high-impact journals.

More about us: our website



Laura Rayón

Director

Professor in the Teaching and School Organisation Department at the Faculty of Education, Complutense University. Research areas: Inclusion, educational technology and digital literacy



Ana de las Heras

Professor

Professor in the Teaching and School Organisation Department at the Faculty of Education, Complutense University. Research areas: Inclusion, educational technology and digital literacy



Pep Hernández

Professor

Professor in the Teaching and School Organisation Department at the Faculty of Education, Complutense University. Research areas: Inclusion, educational technology and digital literacy



Giulia Meneghel

Early Years Teacher and PhD student

Member of the Italian State Corps of Early Years Education Teachers. Research areas: Inclusion, educational technology and digital literacy



Carlos Barroso

PhD in Education, Telecommunications Engineer and Big Data Analyst at Telefónica

Research areas: Inclusion, educational technology and digital literacy



Esther Barroso

Headteacher of a Preschool and Primary School and PhD student

Research areas: Inclusion, educational technology and digital literacy

DigComp 3.0: The Digital Competence Ecosystem in Europe

The Core: The 5 Competence Areas

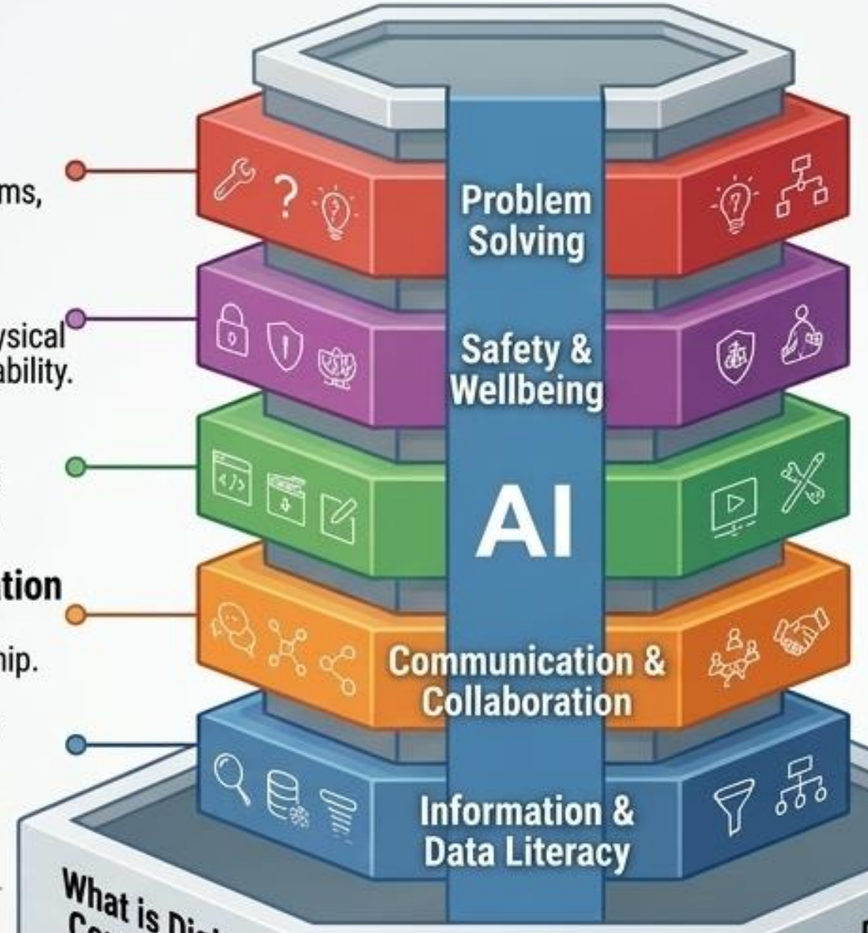
5. Problem Solving
Identify needs, solve technical problems, use technology creatively.

4. Safety & Wellbeing
Protect devices and data, support physical wellbeing and environmental sustainability.

3. Digital Content Creation
Develop and edit, apply copyright and licenses, use computational thinking.

2. Communication & Collaboration
Interact and share ethically, manage digital identity, participate in citizenship.

1. Information & Data Literacy
Articulate needs, evaluate source credibility, manage structured data.



Proficiency Levels (The Progression)

Highly Advanced Level
Solves highly complex problems, creates new solutions, leads others.

Advanced Level
Applies complex solutions, adapts to contexts, can guide others.

Intermediate Level
Identifies and performs defined tasks, solves problems autonomously.

Basic Level
Remembers and performs simple tasks with help or guidance.

The Foundations: Prerequisites & Dimensions

What is Digital Competence?
Confident, critical and responsible use of technologies for learning, work, and social participation.

Performance Triad


Access Requirements
- Basic Literacy,
- Device Access,
- Stable Internet Connection,
- Technical Assistance.

The Modern Engine: AI Integration

Transversal AI in the 21 Competences: Technology integrated to understand algorithms, biases, and ethics.

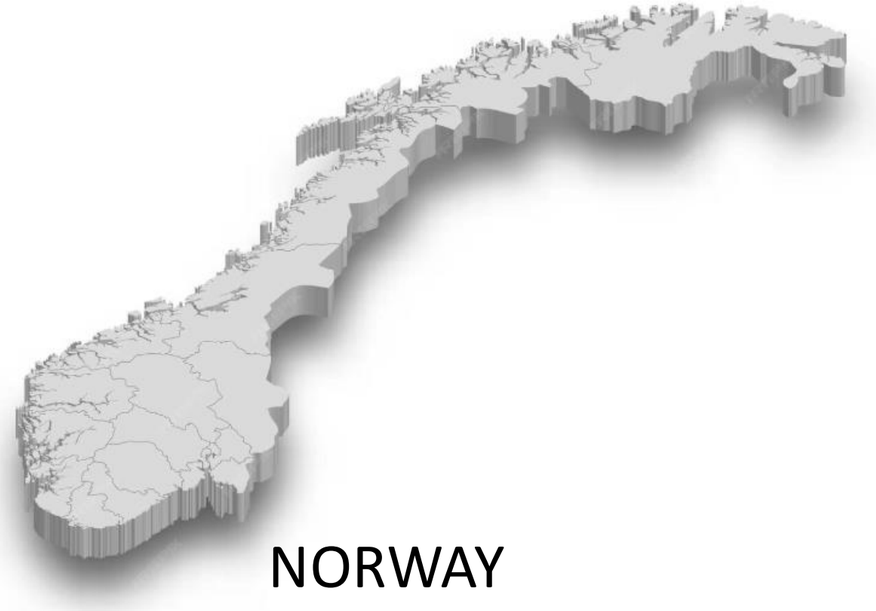
Explicit & Implicit AI Competence: 14% of statements mention AI directly; 68% integrate it implicitly in processes.

Human-Centric Approach: Prioritizes human oversight and critical evaluation of automated results.



SPAIN

DigComp 3.0



NORWAY







ITALY



LITHUANIA

DigComp 3.0





Essential Skills for the 21st Century: Socioemotional and Digital

Modern education requires a dual focus: developing the socioemotional skills of students and equipping educators with digital competencies. The CASEL and DigCompEdu frameworks provide a structured guide to address these two crucial areas, fostering holistic development for both students and teachers.

Socioemotional Learning (SEL) - The CASEL Framework



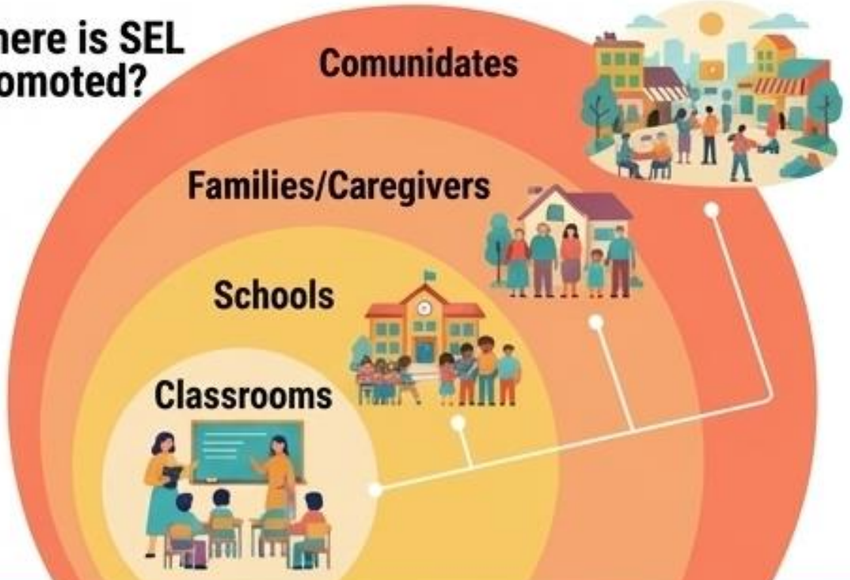
¿What is Socioemotional Learning (SEL)?

It is the process to acquire and apply skills to manage emotions and achieve goals.

The 5 Core Competencies of SEL



Where is SEL Promoted?



Educator Digital Competence - The DigCompEdu Framework



¿What is the DigCompEdu Framework?

It describes the specific digital competencies that educators need for modern teaching.



1. Professional Engagement

Use of technologies for communication, collaboration and professional development.



2. Digital Resources

Selection, creation and management of educational digital content.



3. Teaching and Learning

Integration of digital technologies in the pedagogical process.



4. Assessment

Use of digital tools to improve assessment strategies.



5. Learner Empowerment

Foster inclusion, personalization and active participation of students.

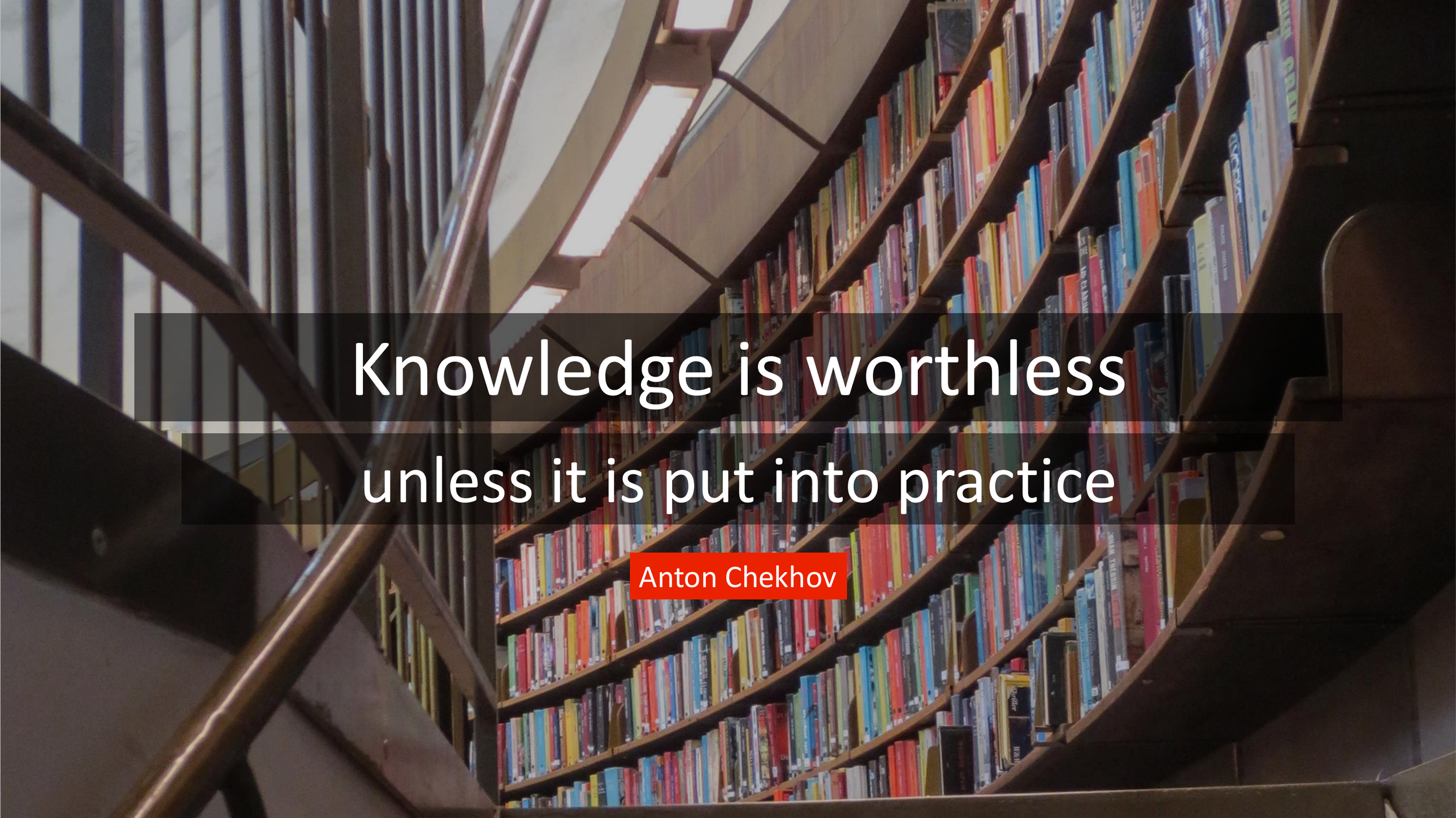


6. Facilitating Learners' Digital Competence

Facilitate the development of students' own digital competence.

SHORT VIDEO SUMMARY



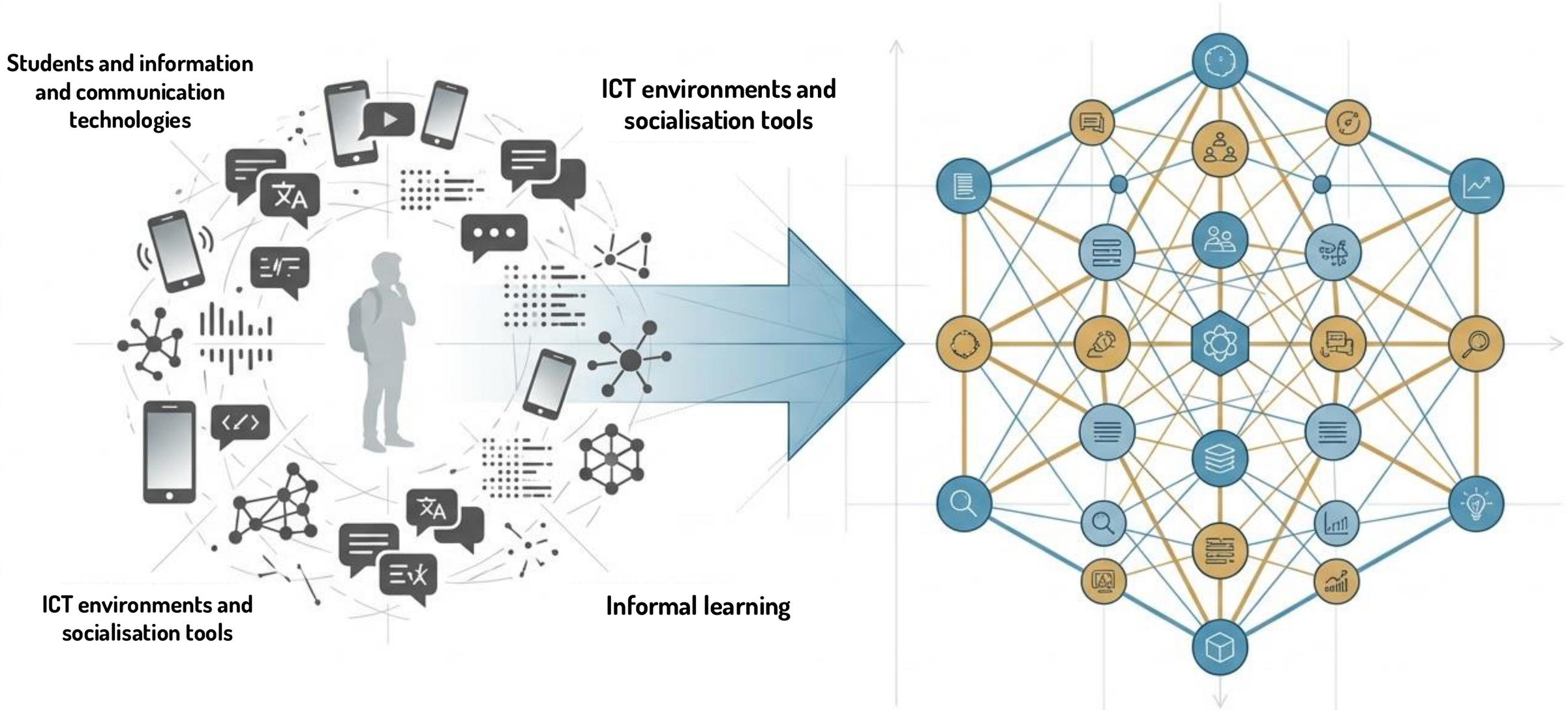

Knowledge is worthless
unless it is put into practice
Anton Chekhov



Reclaiming knowledge in schools

Highly Technological Contexts

Reclaiming knowledge in schools: What do we know, and what might we come to know?



Jakovkis et al. (2025), Petterson (2021), Siljebo (2020), Machekina (2017), Polikarpova et al. (2020)

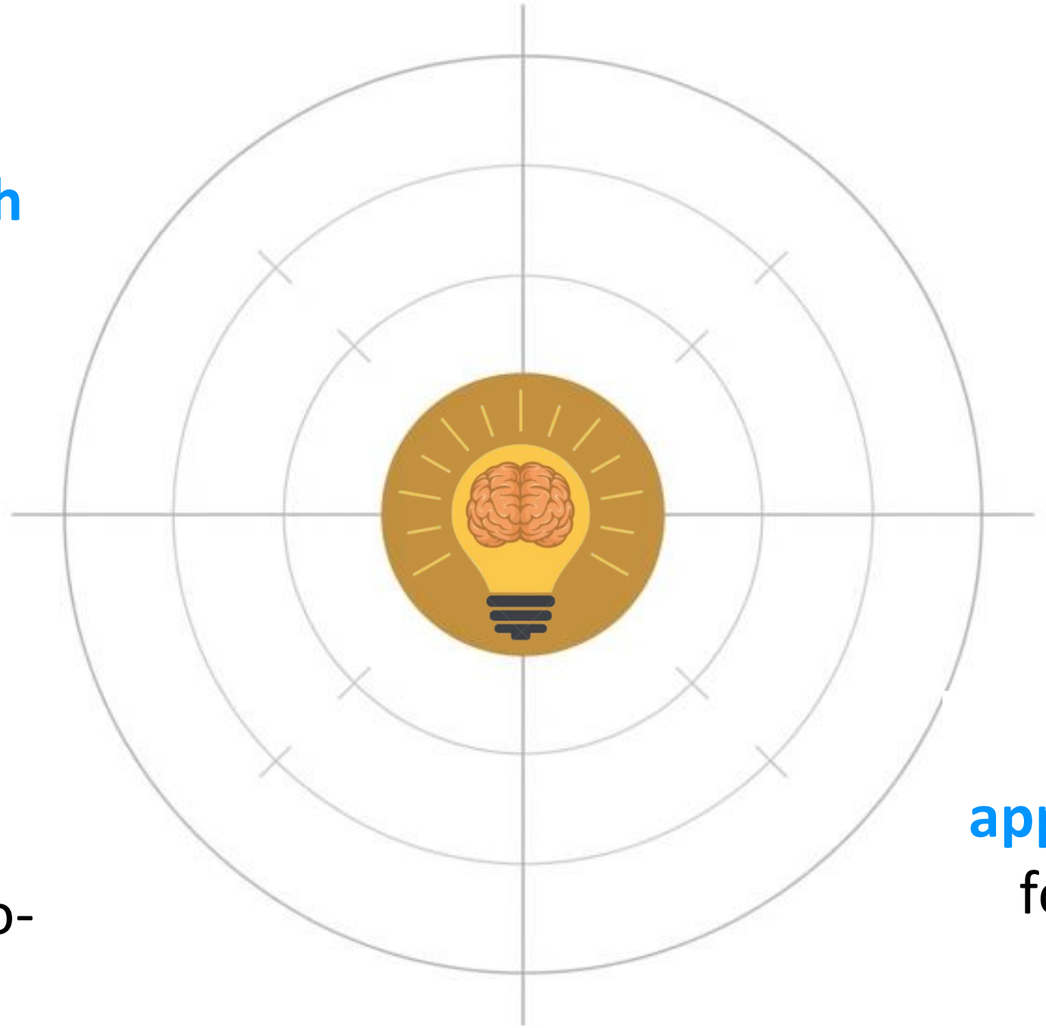
The Horizon of Our Teaching Practice

1

What **model of education** and what **teaching approach** do we need today?

2

What tasks distinguish the **academic uses** of ICT from its socially **critical uses**?



3

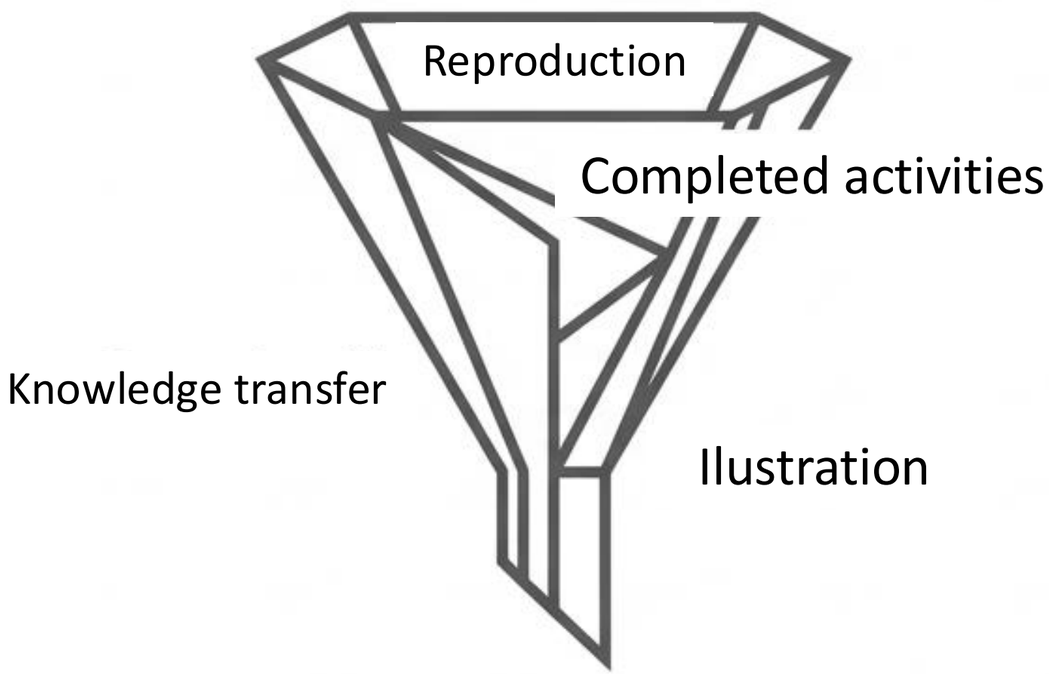
Which **technological applications** are most valuable for the Digital Humanities?

4

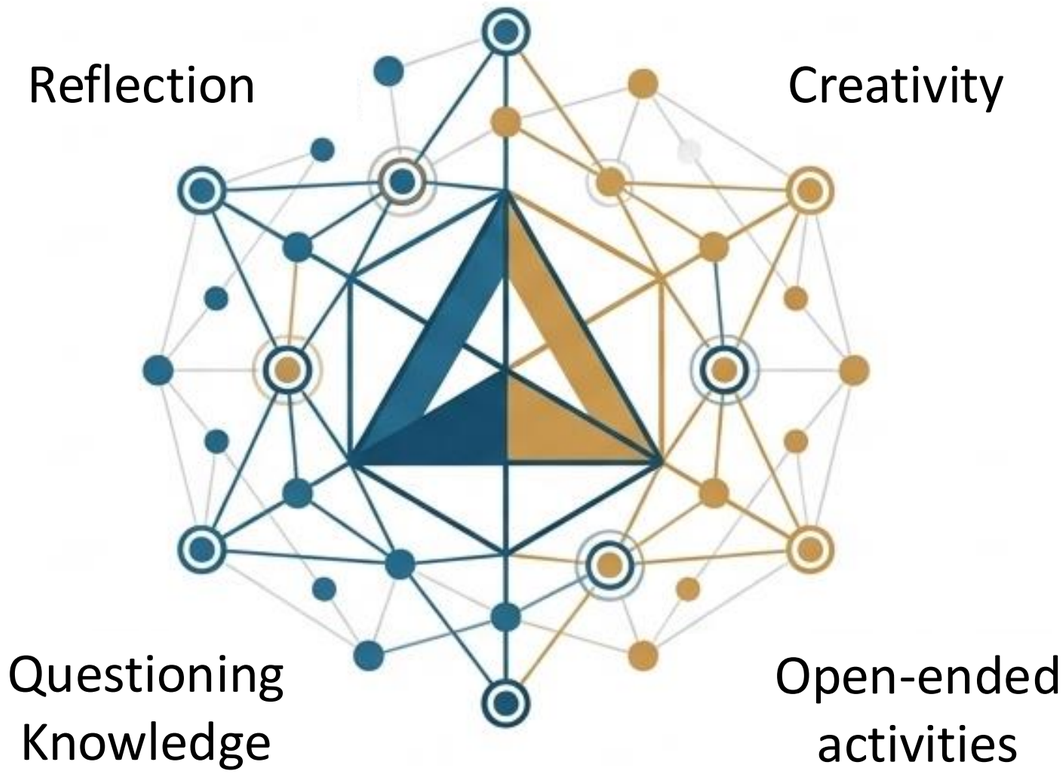
What **competences are needed** in the face of epistemological and spatio-temporal change?

Two Approaches to Technological Integration

Traditional / academic approach



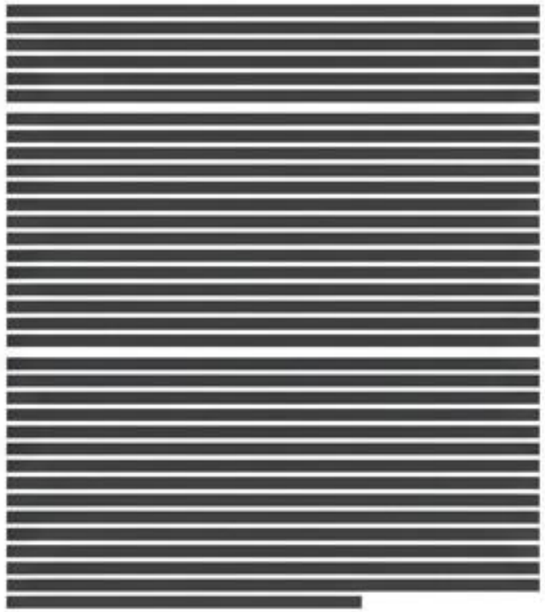
Socially critical approach



From text to the multimodal ecosystem

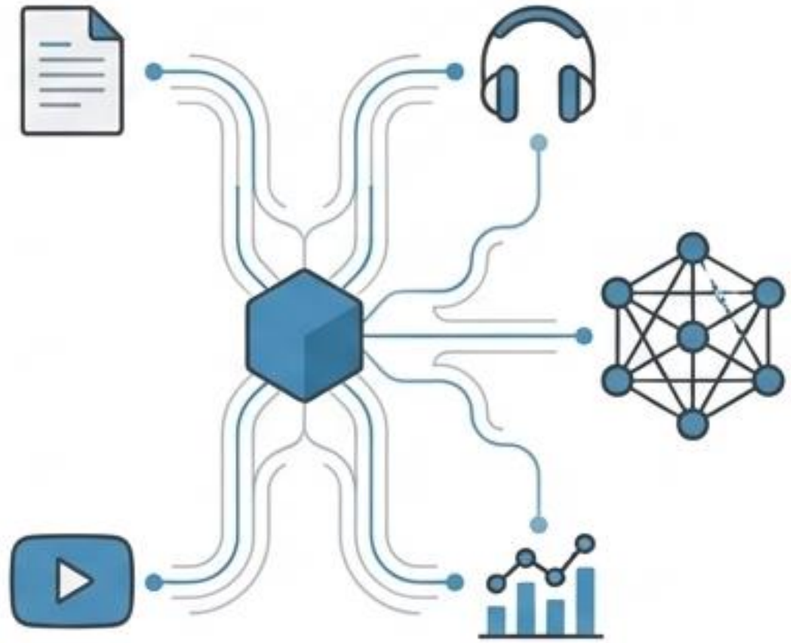
Literacy

Linear methods of knowledge transfer

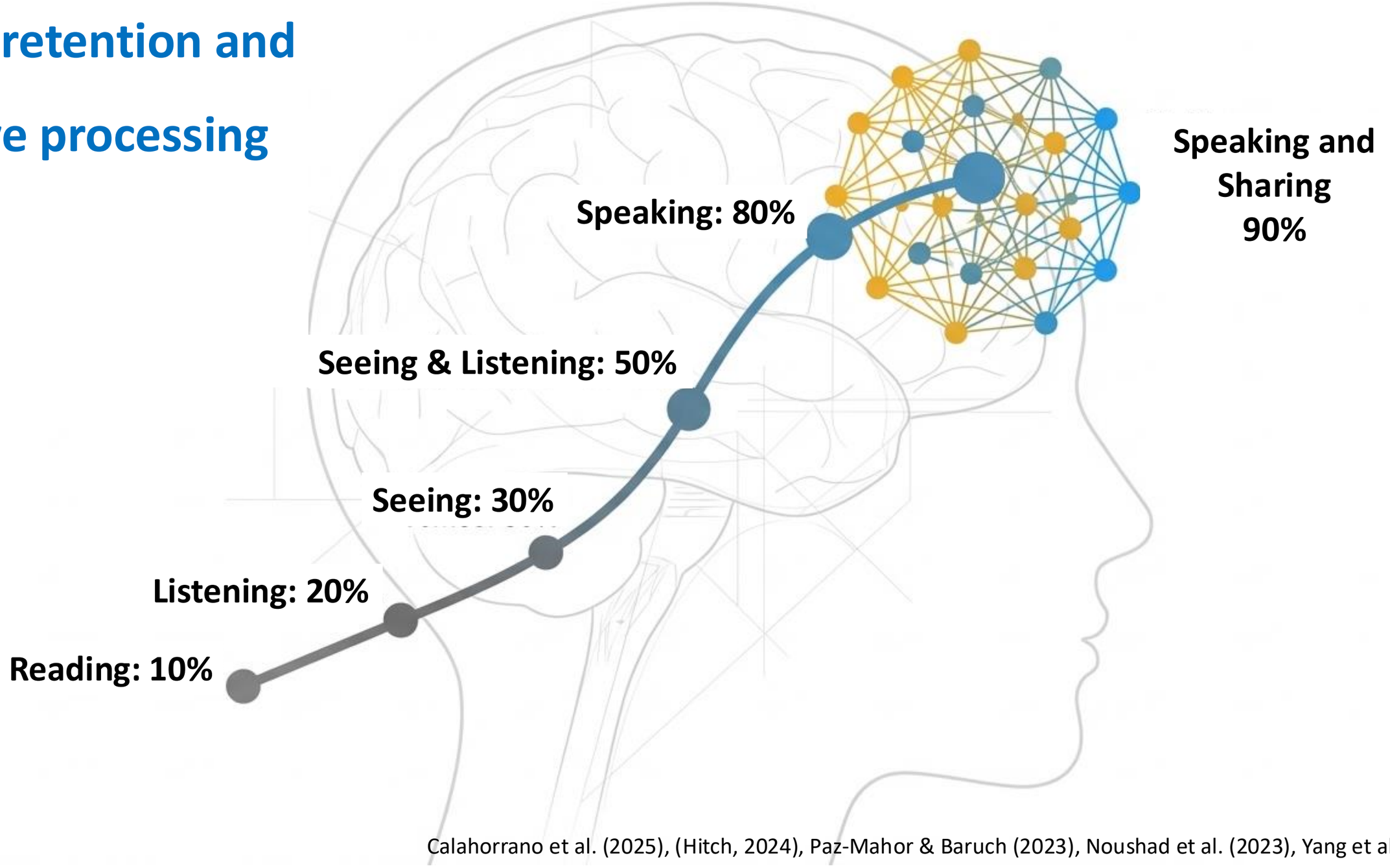


Digital Literacy

Multimodality in knowledge construction



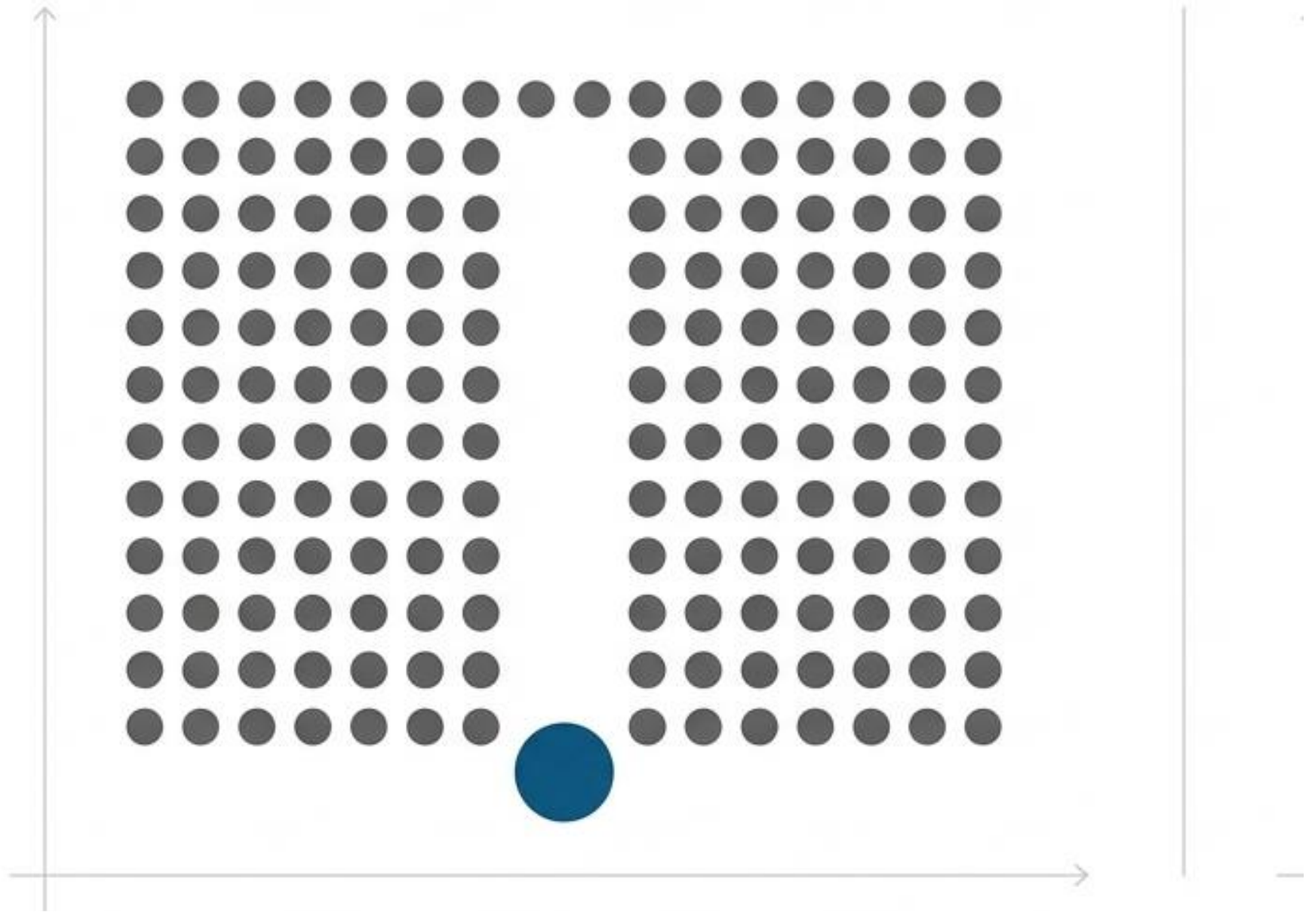
Memory retention and cognitive processing



Calahorrano et al. (2025), (Hitch, 2024), Paz-Mahor & Baruch (2023), Noushad et al. (2023), Yang et al. (2012)

The Classroom Under Scrutiny

The epistemological framework of teaching is changing



From a closed space with a single source...


1960

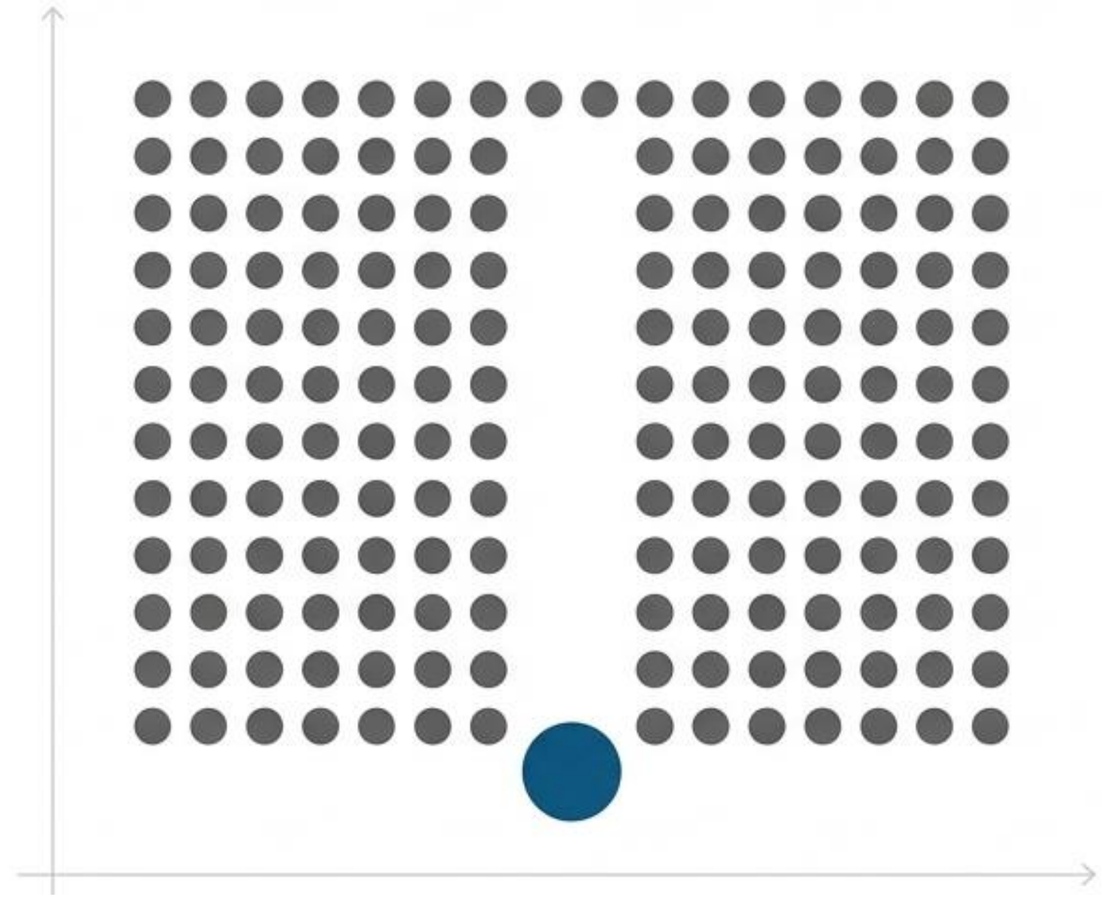

El Renacimiento
Mare Tenebrosa
Africa
Leonardo da Vinci
2019


EL RELIEVE DE NAVARRA
Pirineos
Ebro
Ebro
Pirineos
El Pirineos
2021

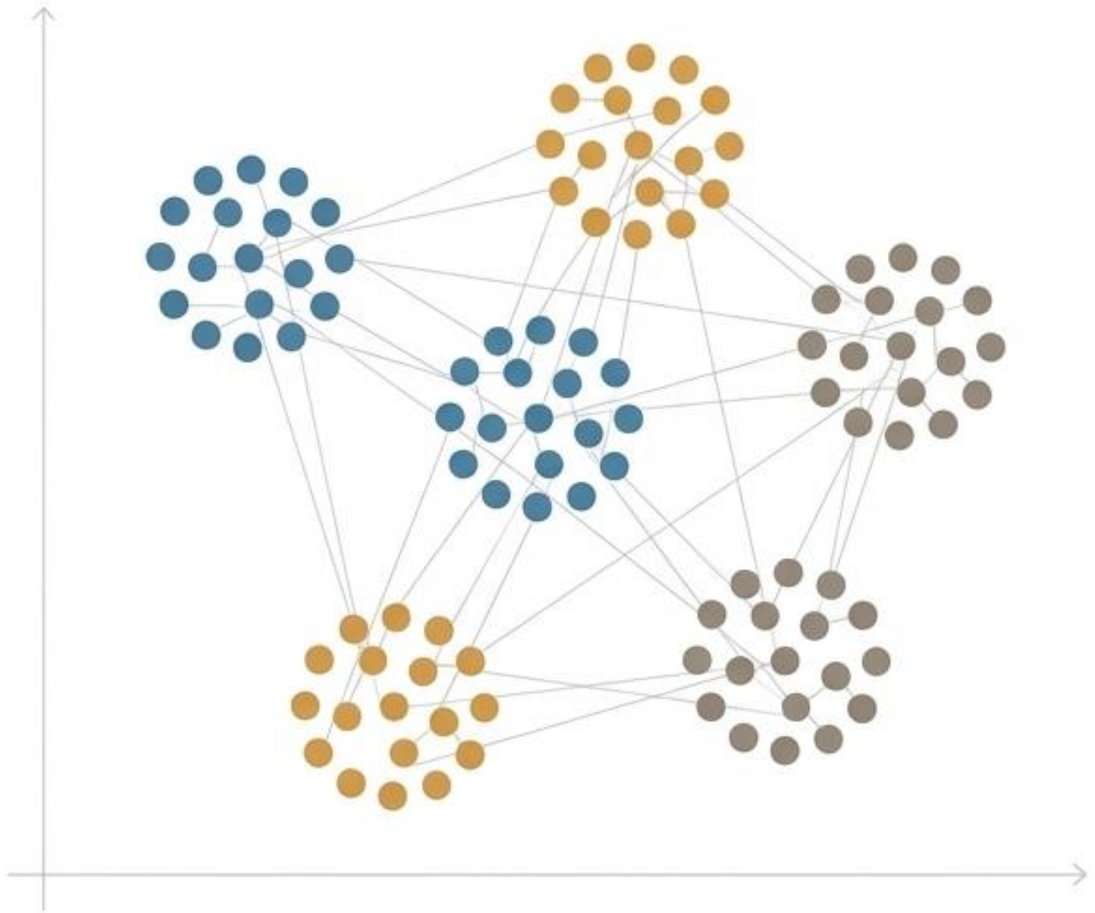

2024

The Classroom Under Scrutiny

The epistemological framework of teaching is changing



From a closed space with a single source...



...to an open hub of interaction

Kagan (1985), Johnson & Johnson (1986), Traver et al., (2023), Teixieira & Reis (2012), Erbil (2020),





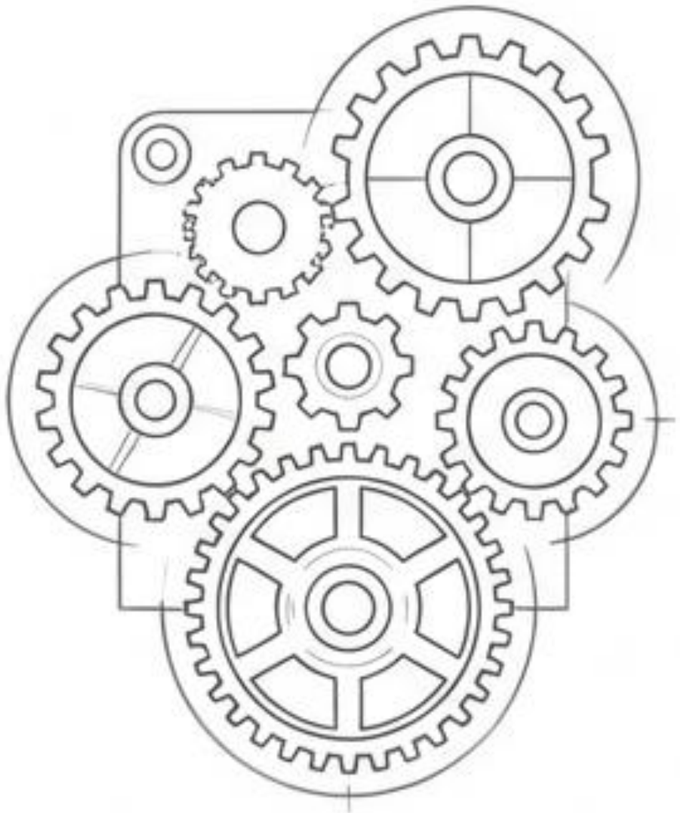
Multidirectional and multi-skills-based learning





Resources as Mediators in the Teaching and Learning Processes

Traditional approach



A socio-critical approach

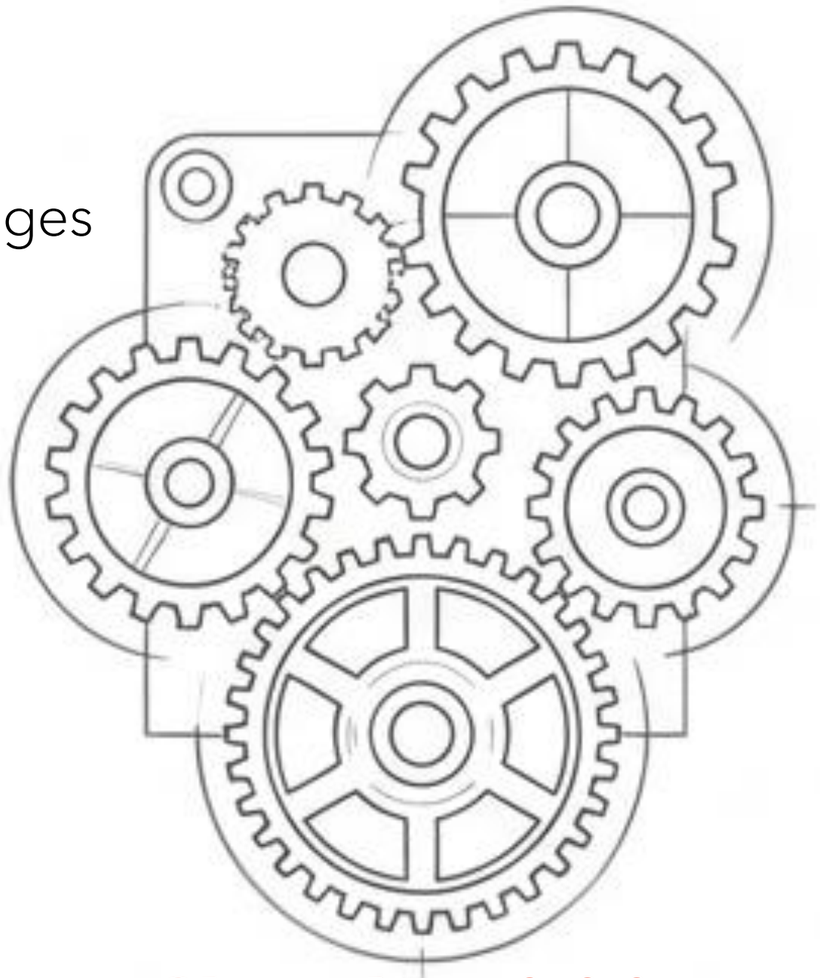


Resources as Mediators in the Teaching and Learning Processes

Traditional/academic uses of ICT resources

Reprodution and transmision of messages

Technical competencies



Motivators / Illustrators
Content designers

Execution role

Closed activities

Resources as Mediators in the Teaching and Learning Processes

Socio-critical uses of ICT resources

Questioning and criticises the messages

Advanced cognitive and interpersonal competences



Creative

Reflective

Deliberative

Open-ended activities

Rich processes and outcomes

Roles: Ideation, imagination, comparison, analysis, negotiation

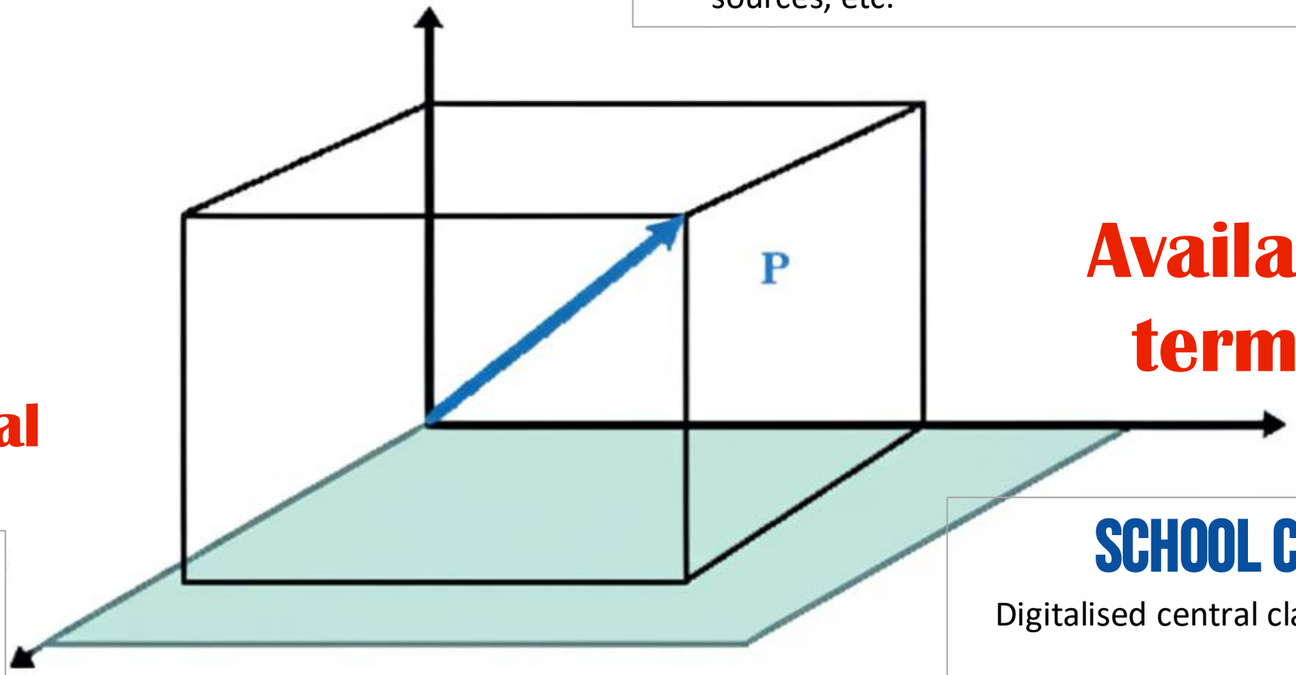
The Digital Divide

The gap is not limited to access; it also affects usage and capacity (Gimeno Sacristán, 2001)

Potential functions

WHAT MAKES US MORE HUMAN:

Encouraging the creation of information and/or products, providing well-reasoned information, drawing on a variety of sources, etc.



Availability and terms of use

Personal, social and cultural factors in real uses

DEMOCRATIC SCHOOL CULTURE

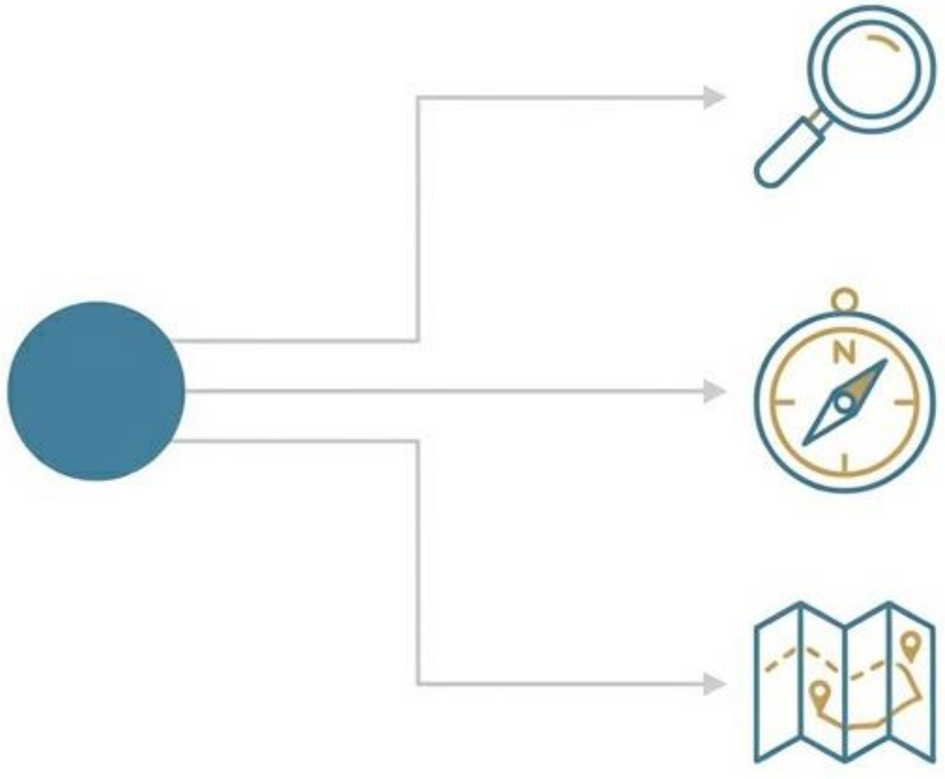
Cooperation vs Competition/ Individualism (Pujolàs et al., 2013)
Family involvement
Biases regarding difference and diversity (origin, socioeconomic status, gender, age...) (Martínez Bonafé & Rogero, 2021; Giroux et al., 2022).

SCHOOL CONNECTIVITY

Digitalised central classroom (computer room)
vs.
All classrooms are equipped with digital facilities (1x1, IDW, Internet)

Major tasks in **Learning to Learn**

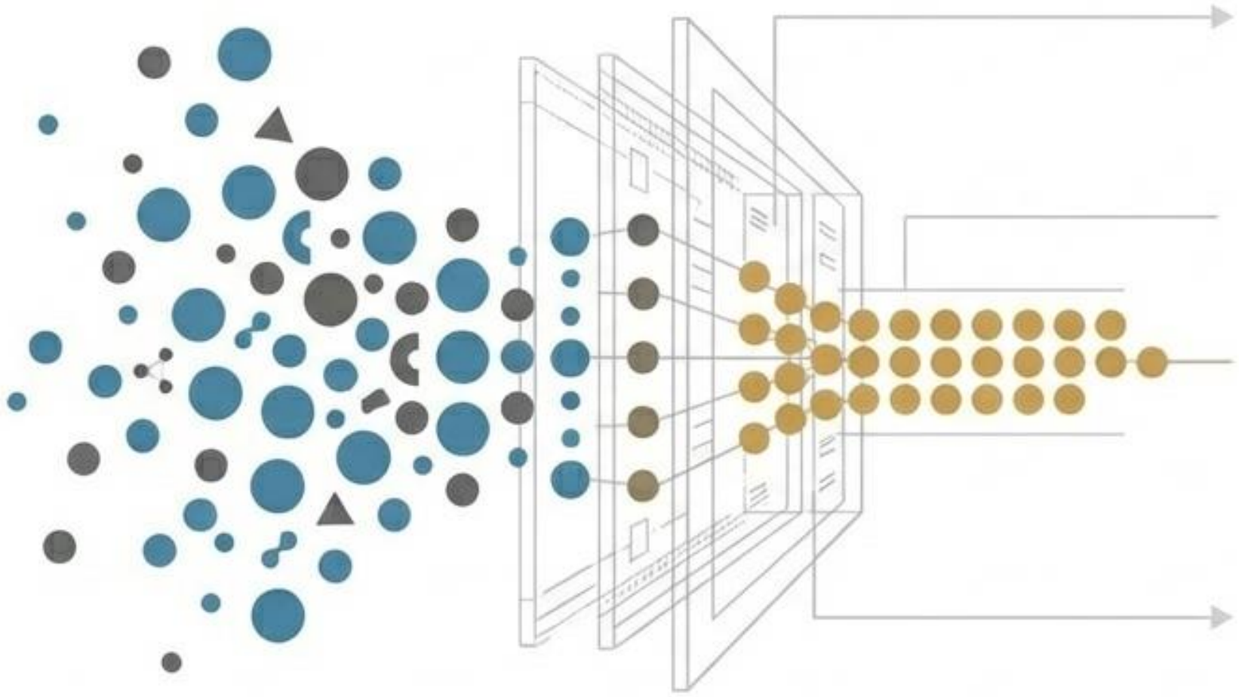
Phase 1: Inquiry and planning



- Define a topic or proposal
- Being able to reflect and ask questions
- Planning your search: What information do you need?
- Finding information: Bibliographic and digital navigation skills

Major tasks in **Learning to Learn**

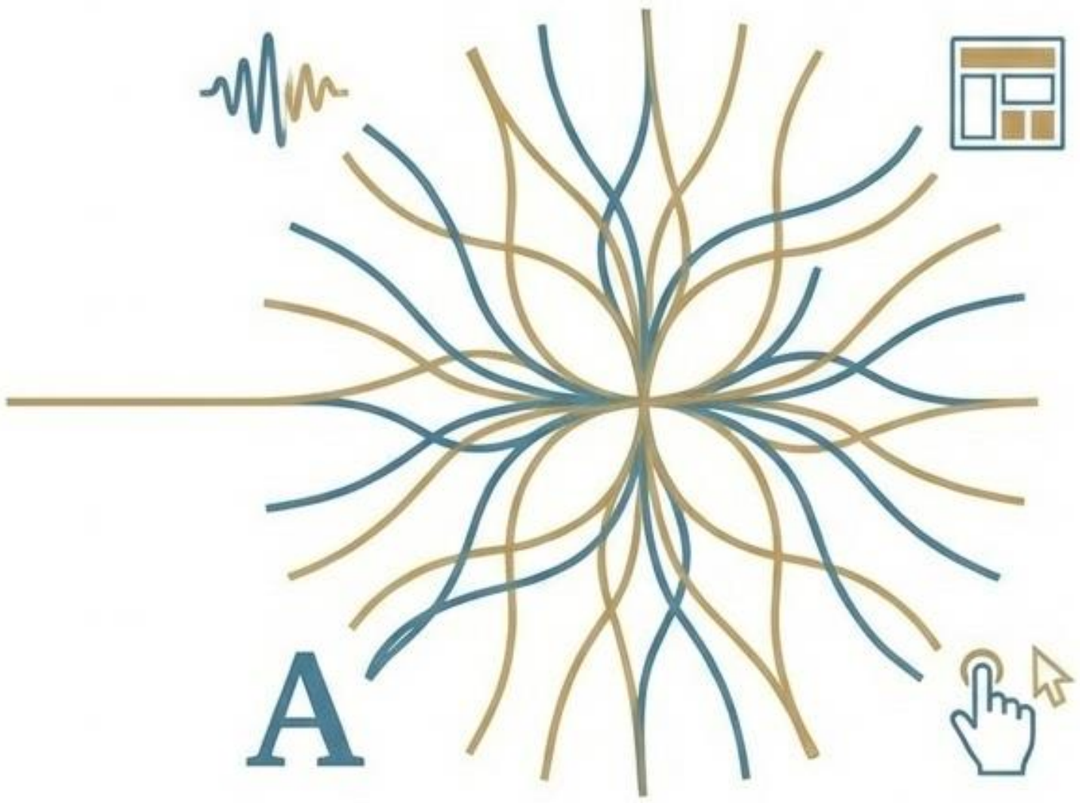
Phase 2: Information management



- Select: Extracting information requires understanding it
- Organise: Take notes, summarise, categorise
- Evaluate: Assess accuracy, relevance and sources
- Filter: Identify bias and manipulation

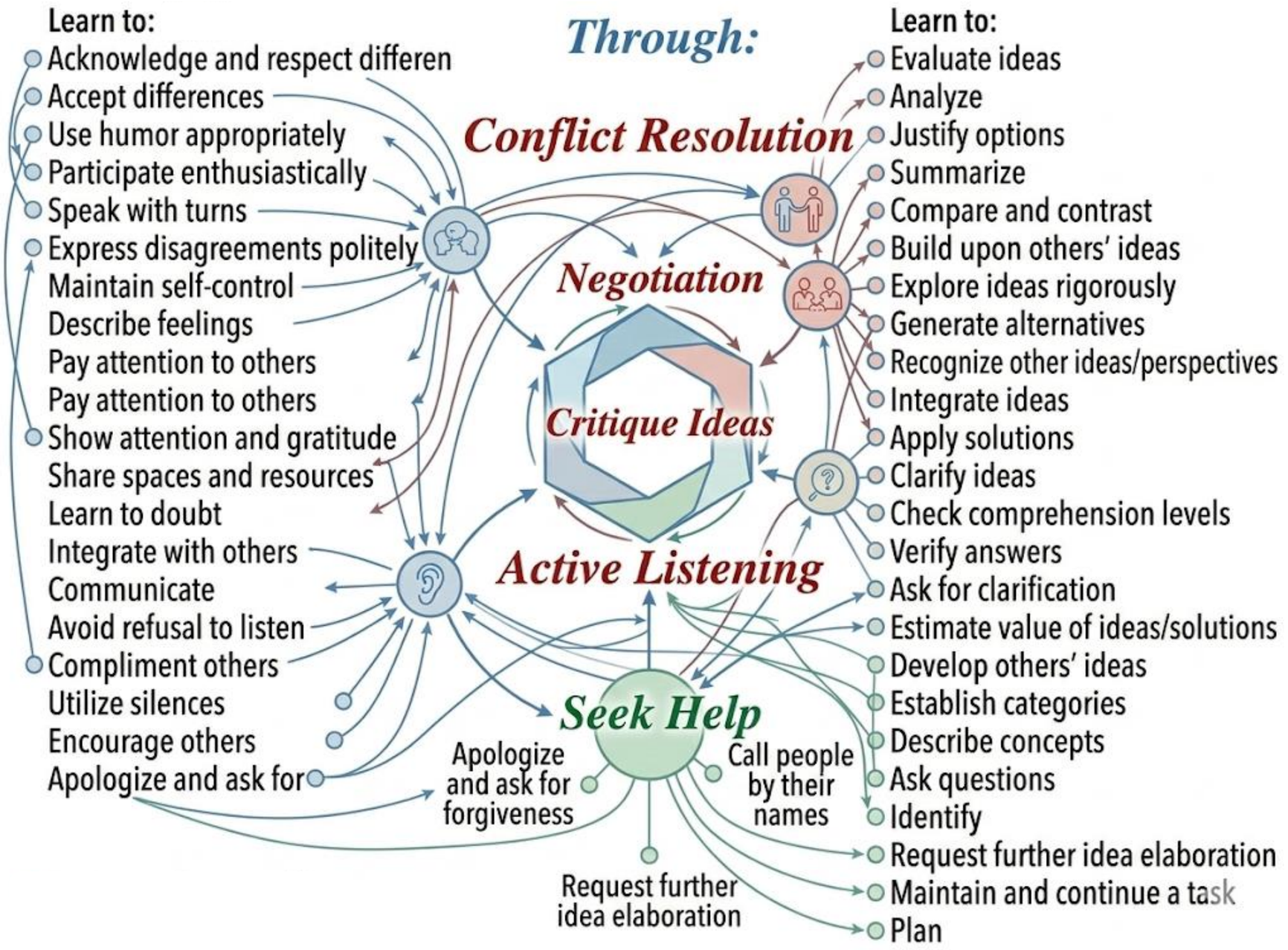
Major tasks in **Learning to Learn**

Phase 3: Expression and result



- Communicating results in an accessible way
- Making decisions: What to say and how
- Presenting results: Integrated multimodal literacy

Interpersonal and Cognitive Competences in **Teamwork**

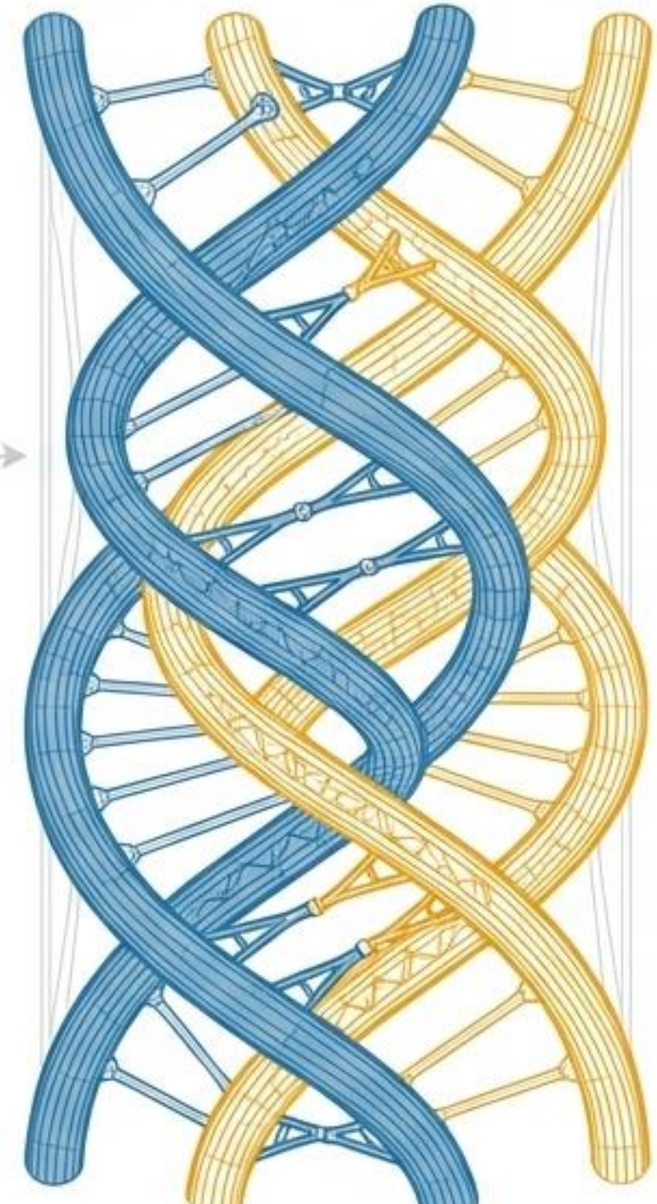


"DNA" OF TEAMWORK



Cognitive Competencies

Assess, analyse, justify, summarise, compare, generate alternatives, clarify, estimate value

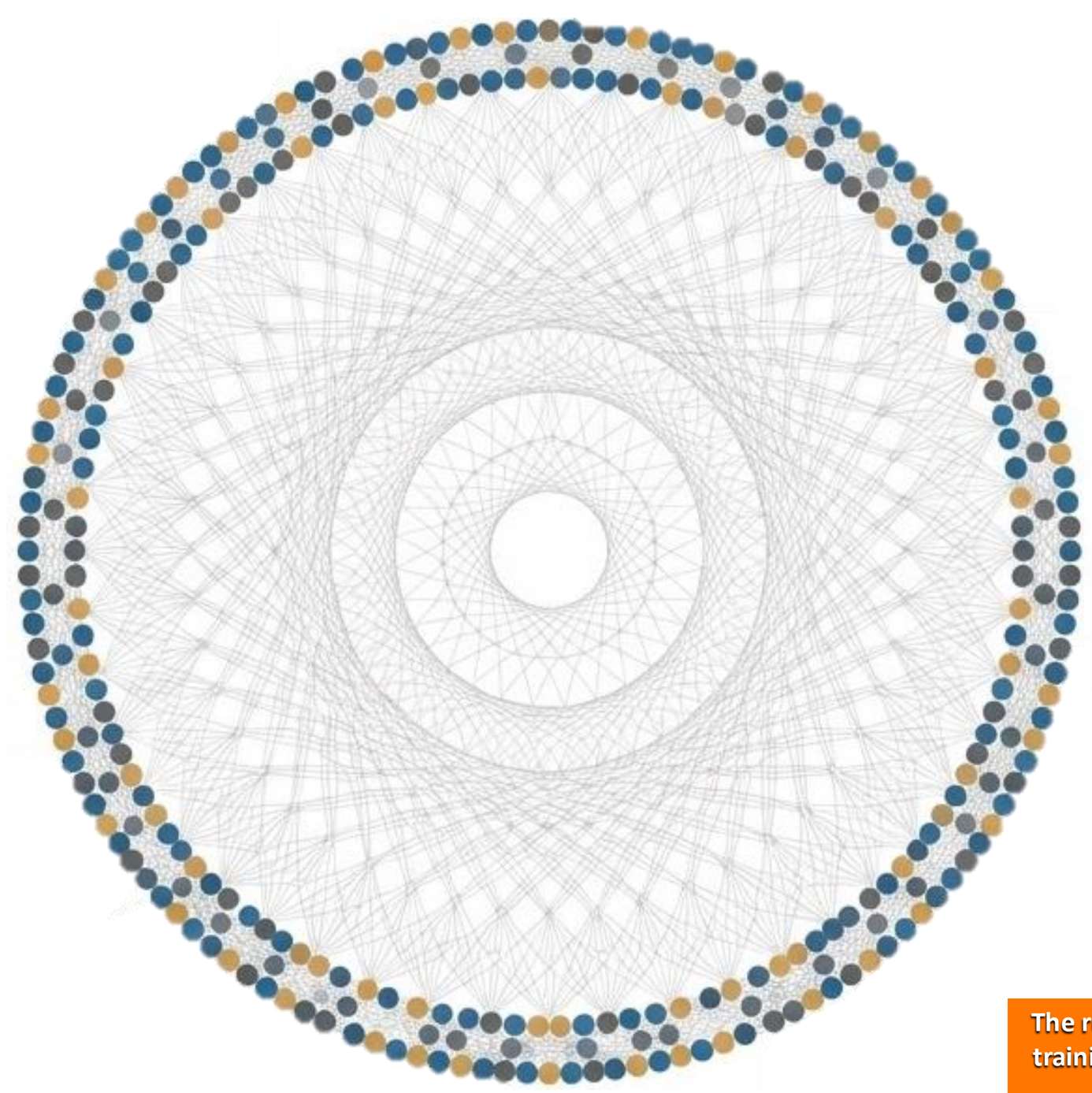


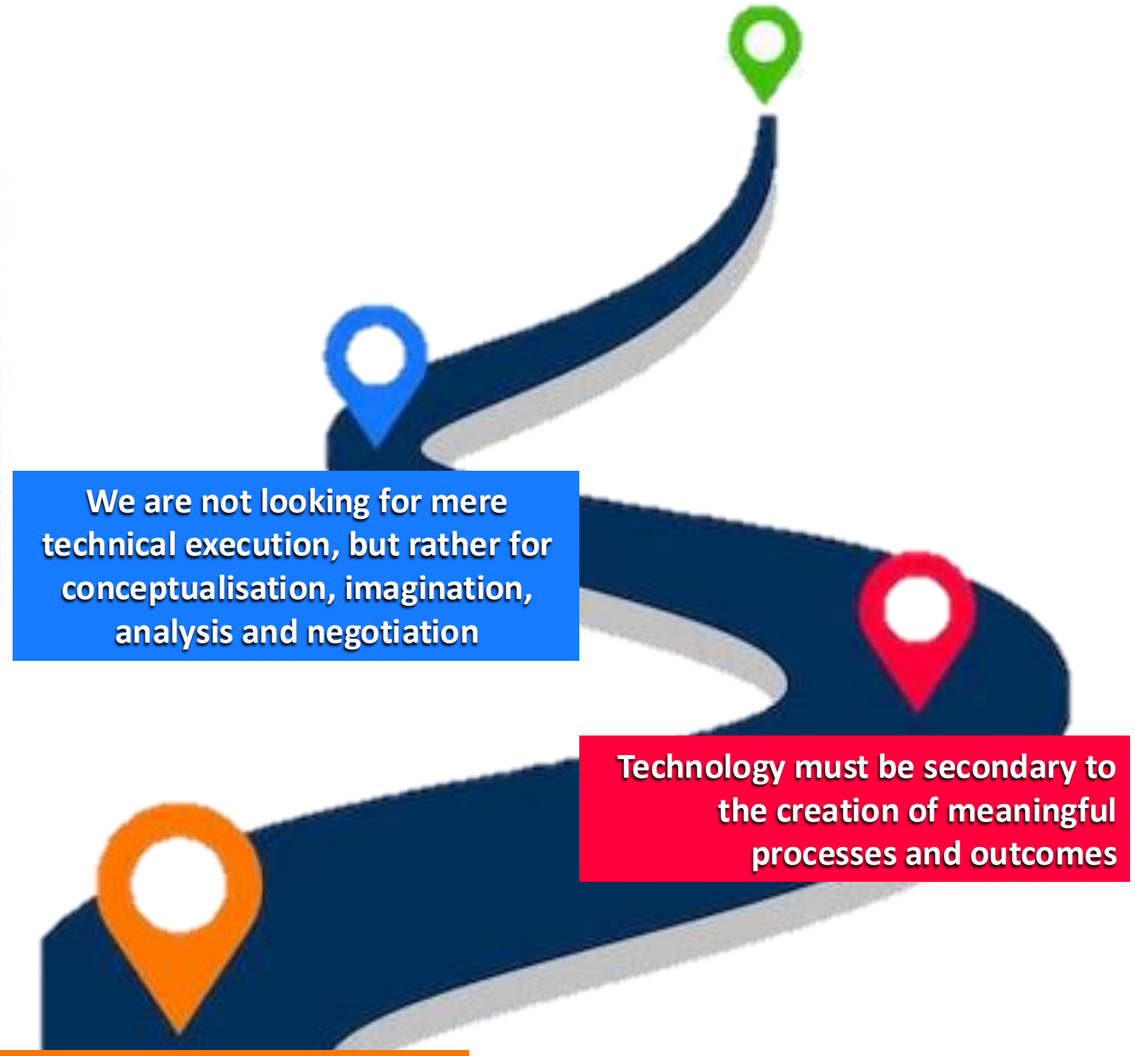


Interpersonal Competencies

Facilitate, accept differences, use humour, participate, show appreciation, resolve conflicts, negotiate

Towards a Pedagogy of Socially Critical Teaching Interaction

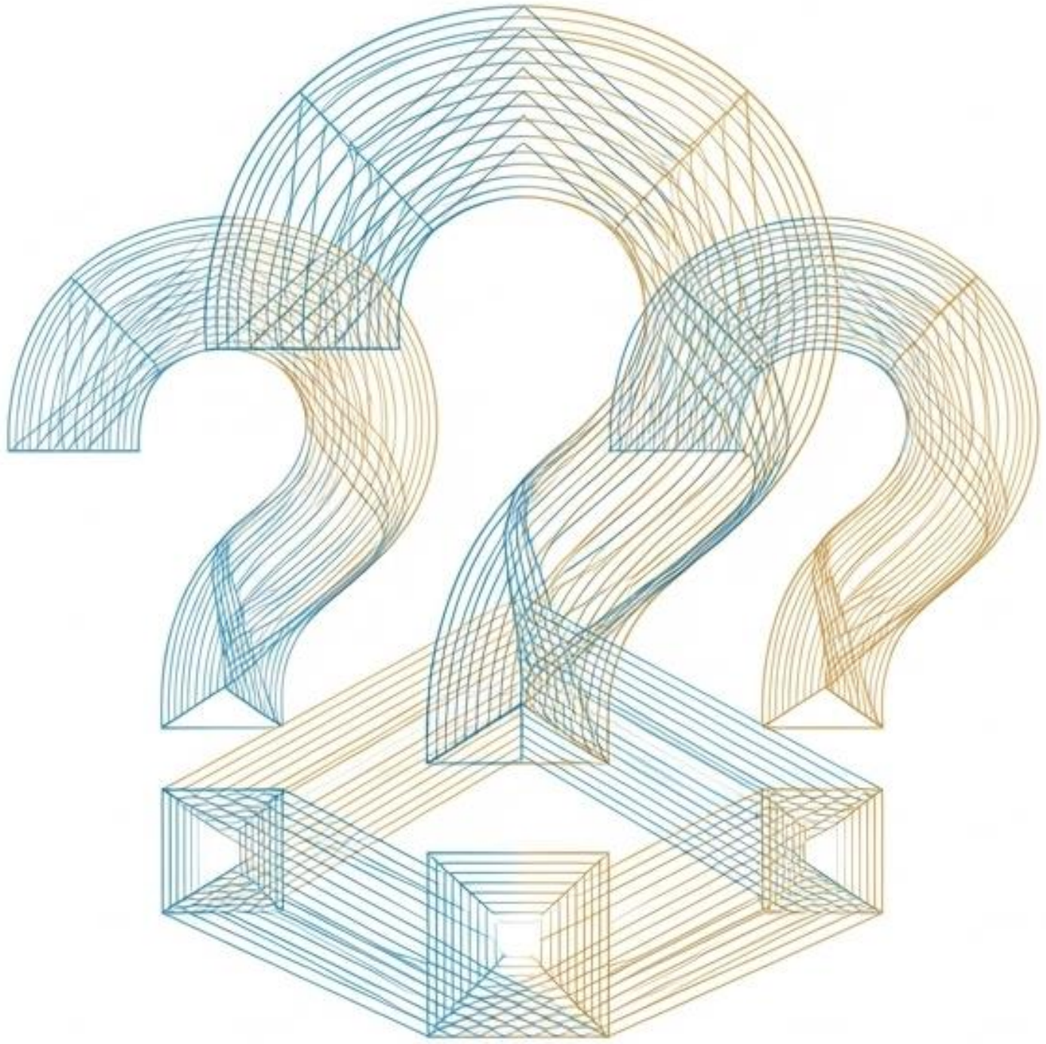




We are not looking for mere technical execution, but rather for conceptualisation, imagination, analysis and negotiation

Technology must be secondary to the creation of meaningful processes and outcomes

The real change lies in the passive training of the neural network for cooperative learning



Reflections on Teaching Practice

Analyzing our pedagogical ecosystem

1 To what percentage do **our subjects** promote **instructional uses** of ICT as opposed to **formative uses**?

2 How are we **assessing interpersonal and cognitive skills** in digital environments?

3 If the traditional classroom is outdated, **have we redesigned our learning spaces** (both physical and virtual) accordingly?

Digital Humanities: Lesson Model for Active Teaching

Teaching model that integrates digital tools and active learning through a 5-phase structured lesson for student holistic development.

Fundamental Principles



Holistic Education:
Balances development of knowledge, physical well-being and socioemotional skills.



Gradual Digital Integration:
Technology is introduced passively at the beginning, moving towards active and systemic use.



Group-Based Learning
Fosters cooperation, self-management, and responsible decision-making.

The 5-Phase Lesson Model

1. Warm-up (5-7 min):
Energizing activity to activate the group at the start of the day.

2. Activation (10 min):
Dynamic for connecting with students' prior knowledge.

3. Teaching Point (10-15 min):
The teacher briefly explains the concept or task instructions.



4. Practice (30-50 min):
Key moment for digital integration to research, create, and collaborate in groups.

5. Metacognition (5-8 min):
Review of the process and self-evaluation of learned content through open-ended questions.

Practical Example: Comic Creation Lesson



Learning Objective:
Develop a coherent narrative and create dialogues using onomatopoeia.



Practical Digital Activity:
In pairs, use the 'ToonyTool' tool to design the first panel of a story.



Socioemotional Focus (SEL)
Practice teamwork and collaborative problem-solving.

Assessment for Growth



Feedback and Feedforward
The assessment is based on precise feedback that guides future learning.



Checklists
Involve students in their own assessment so they are aware of their objectives.



Self-Assessment Criterion
Example item: "¿Does the story have a believable beginning?".

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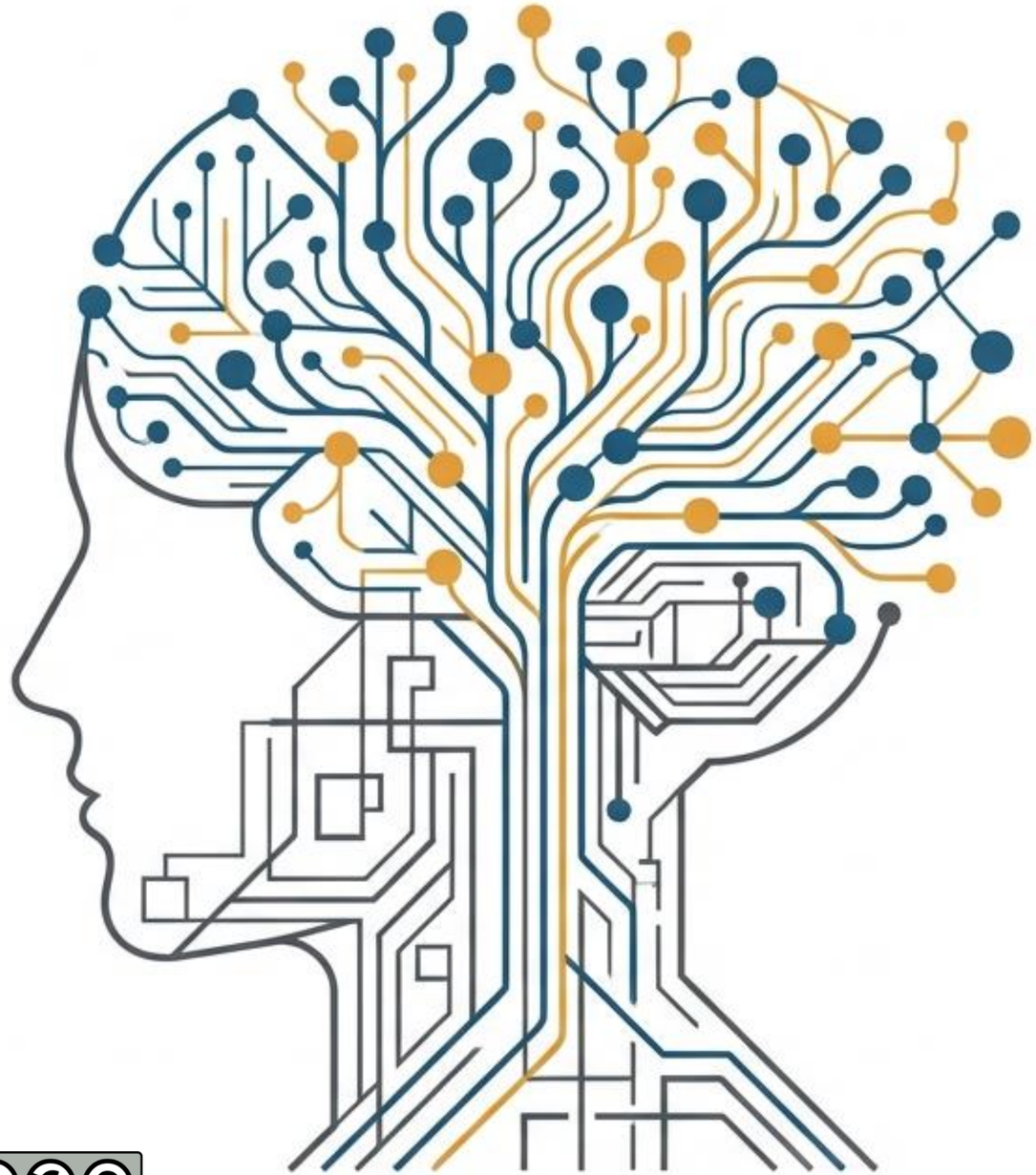
Digital Humanities:

An Educational Purpose for ICT

From information acquisition to the development of students' technological and multimodal competencies



Erasmus+ KA220 Project – *Digital Humanities*

UNIVERSIDAD COMPLUTENSE MADRID

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DIGITAL HUMANITIES

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