ECML Webinar

EUROPEAN CENTRE FOR MODERN LANGUAGES
CENTRE EUROPEEN POUR LES LANGUES VIVANTES

COUNCIL OF EUROPE
CONSEIL DE L'EUROPE

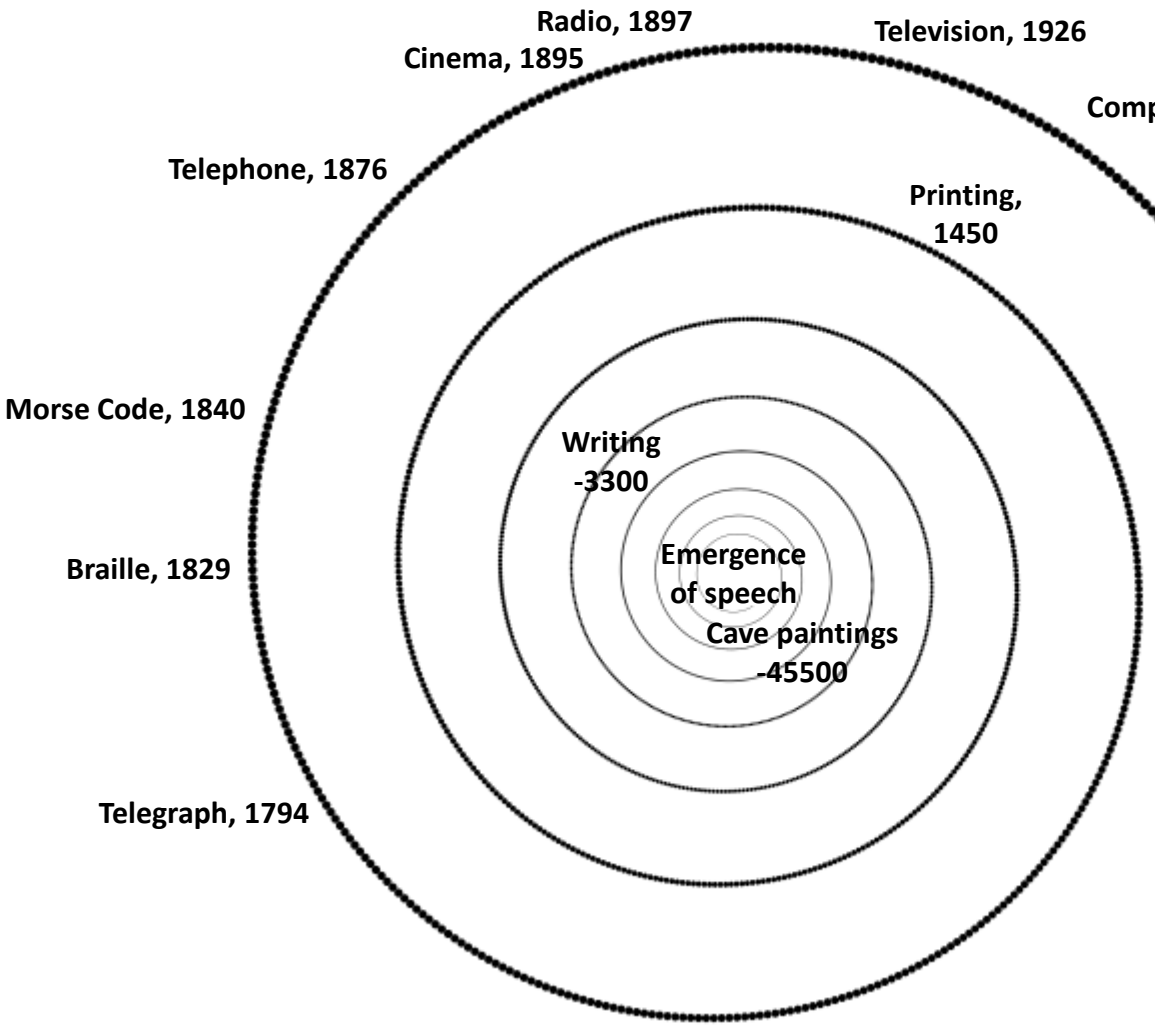
Plurilingual and intercultural education: Opportunities and challenges in times of AI



Generated by deepai.org

Jonas ERIN, ECML Expert and EOL TaC coordinator

Evolution of Human Communication



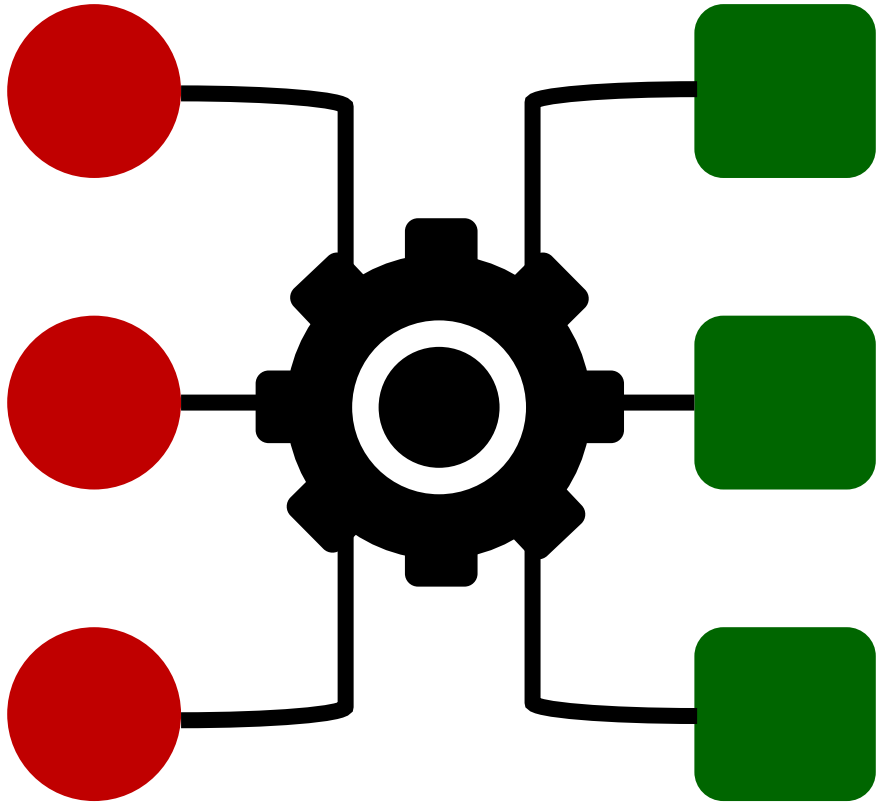
Google, 1998; Wikipedia, 2001
Skype, 2003; Facebook, 2004
YouTube, 2005; Twitter, 2006
Iphone, 2007; WhatsApp, 2009
Instagram, 2010, Zoom, 2011
Snapchat, 2011, TikTok, 2016

Integrated XR, 2020
LLM-based Generative AI 2021: GPT-4, 2023; Bard, 2023; Claude, 2023; Gemini, 2023; etc.
Image-based Generative AI: Stable Diffusion, 2022; DALL-E, 2023; Midjourney, 2023; etc.
Code-based Generative AI: Copilot, 2023, Code Llama, 2023; Tabnine, 2023; etc.
Multimodal Generative AI: Gate, 2022; GPT-4 Vision, 2023; etc.
Music-based Generative AI: JukeBox, 2020; Soundfull, 2023; Suno, 2023; Aiva, 2023; etc.
AI for Video and Animation: Runway, Gen-2, 2023; Pika Labs, 2023; Sora, 2025; etc.
Open Source Computer Vision, 2023
Space Computing, 2023
AI agency, 2025

How do our children grow up these days?

As algorithms increasingly dictate the information we consume and the connections we make, they might marginalise certain groups, further entrenching social divides and isolation

https://www.cartoonmovement.com/cartoon/growing-0



Read more: *Social implications of algorithmic bias*, Łukasz IWASIŃSKI Katedra Informatologii Wydział Dziennikarstwa, Informacji i Bibliologii Uniwersytet Warszawski

Talking about bias

How do all these bias interact?

Human bias

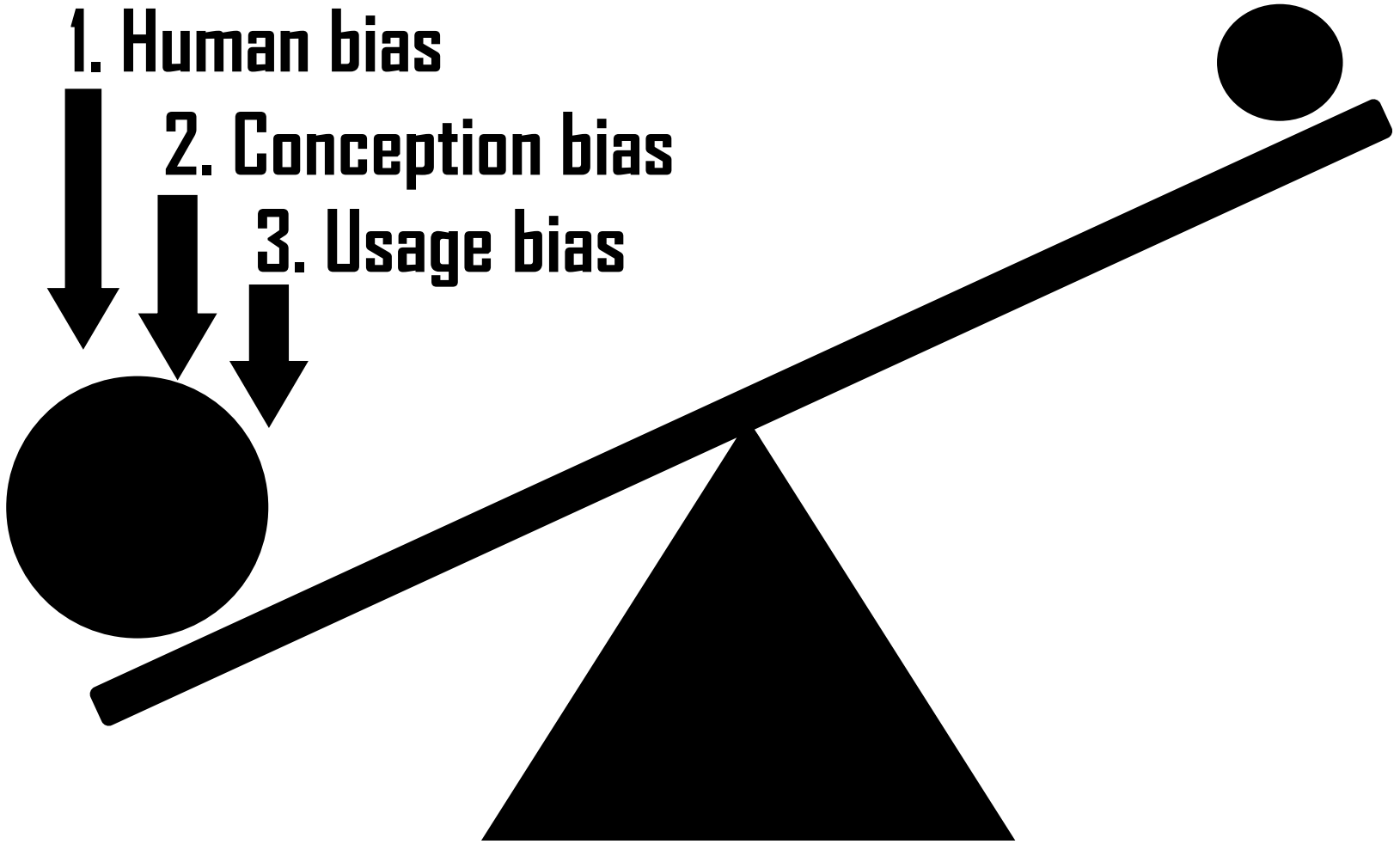
- Norms
- Emotions
- Communication
- Quick win
- Simplification
- Etc.

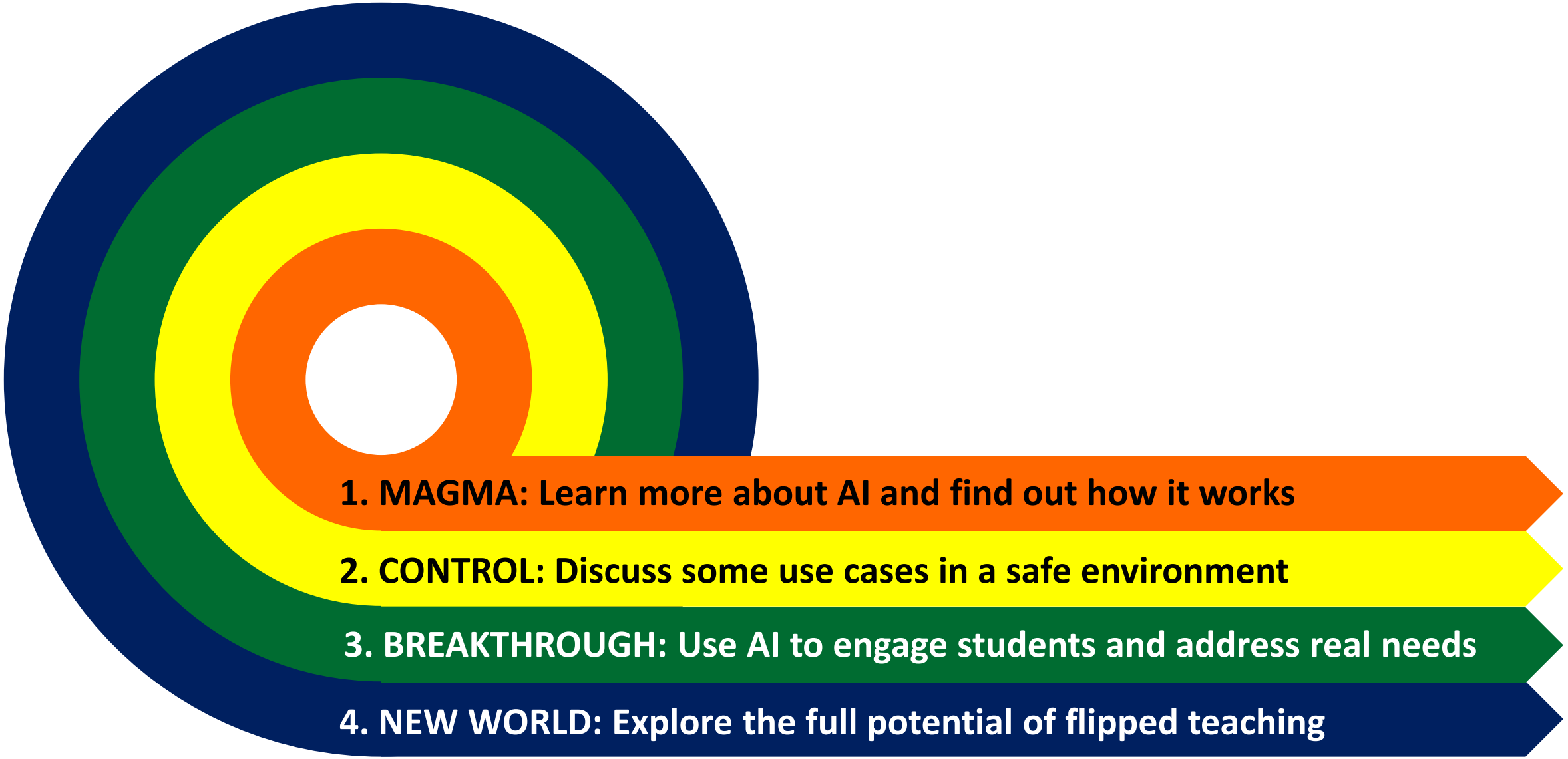
Conception bias

- Data
- Algorithm / RAG
- Bot (cultural bias)

Usage bias

- Language
- Anthropomorphisation
- Data pollution




1. MAGMA: Learn more about AI and find out how it works
2. CONTROL: Discuss some use cases in a safe environment
3. BREAKTHROUGH: Use AI to engage students and address real needs
4. NEW WORLD: Explore the full potential of flipped teaching

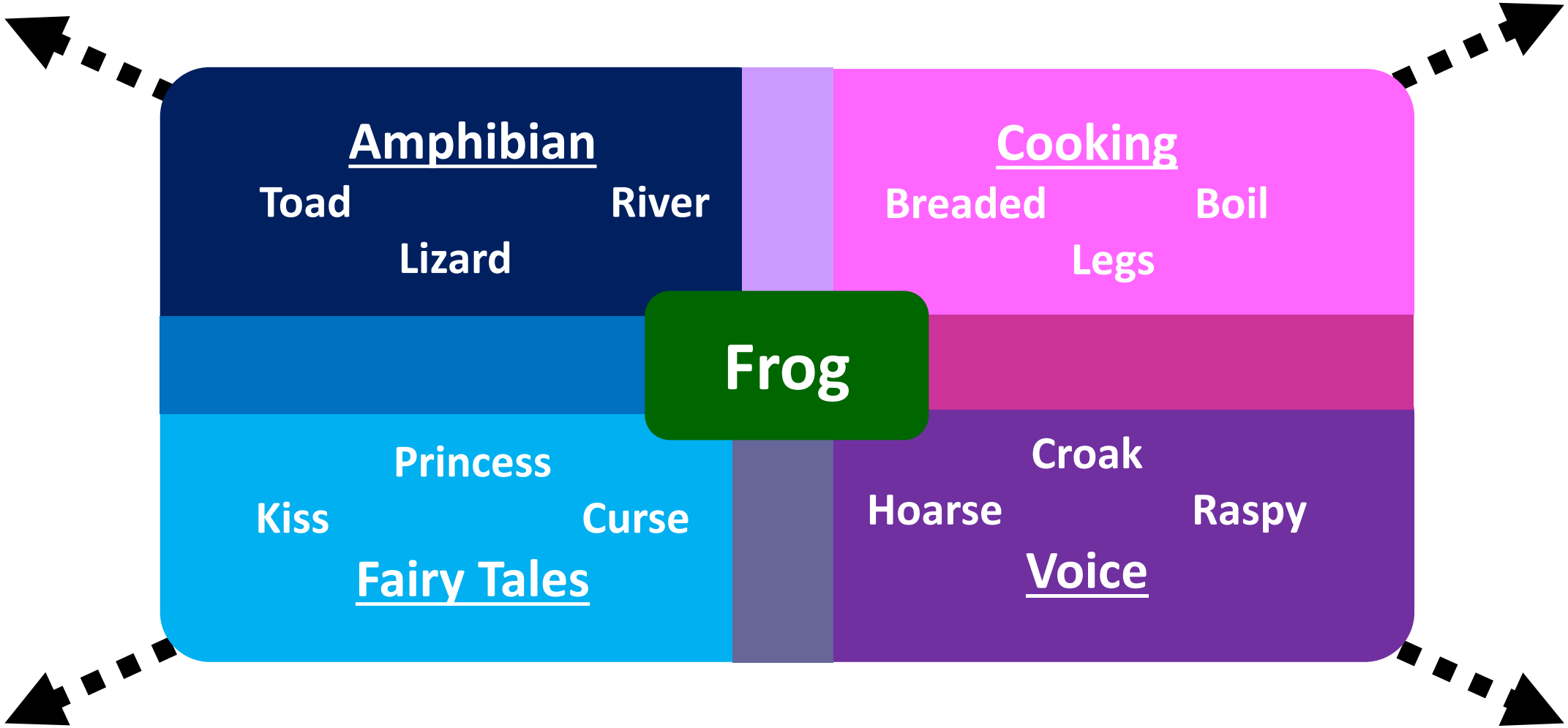
1. Escape the MAGMA

Learn more about generative AI and find out how it works

A disruptive technological evolution that

- …multiplies learning and teaching possibilities
- …emphasises the importance of reciprocal communication
- …highlights the importance of plurilingual and intercultural education

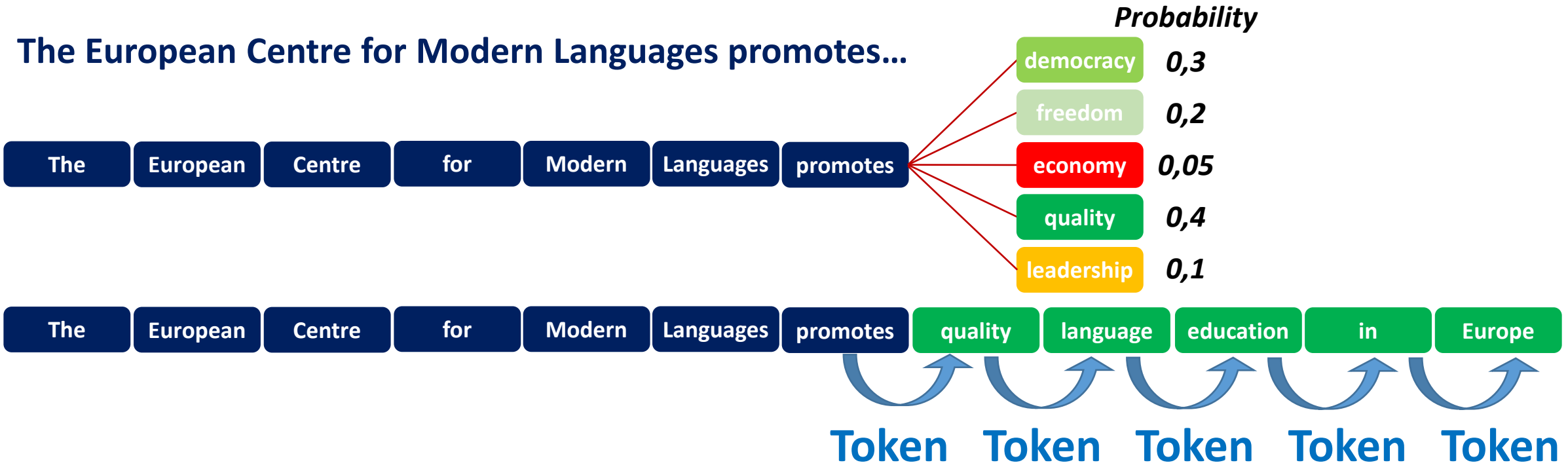
Large language models (LLM): a probabilistic approach



Learn more: https://research.google.com/semantris/

Large language models (LLM): a probabilistic approach

Understand the algorithmic process



A token is the smallest unit into which text data can be broken down for an AI model to process

https://www.lighton.ai/

HUMAN TRANSLATION vs. MACHINE TRANSLATION

Human translation (HT)

HT grounded on plurilingual and intercultural education

Valuing plurilingual and intercultural repertoires, supporting language and cultural diversity by linking it to democratic culture and social cohesion

Machine translation (MT)

Rules based MT
1966-1990

Using language and grammar rules, RBMT engines can be customised to fit specific niches

Statistical MT
1990-2014

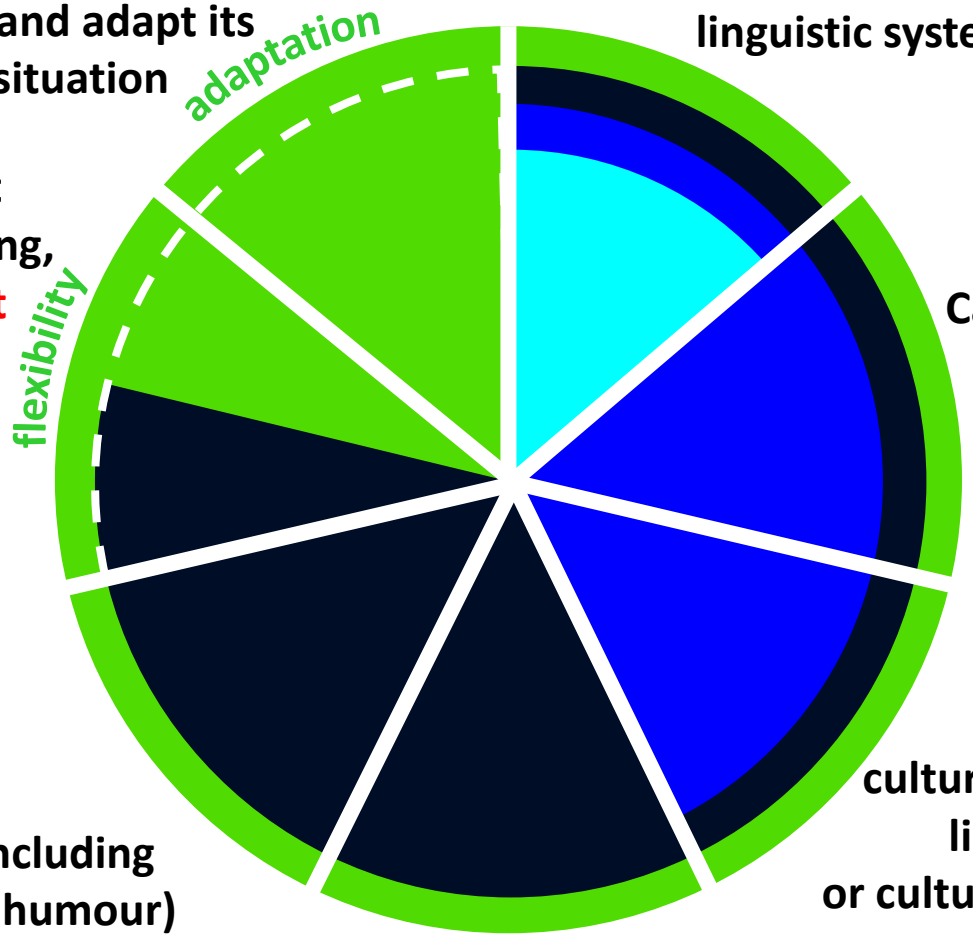
Statistical translation relies on exposing the machine to a wide range of pre-existing human translations..

Neural MT
2014-today

Powerful AI models essentially teach themselves to translate by using an extensive neural network.

Can show empathy, mediate the communication and adapt its behavior to the situation

Can compare two or more linguistic systems



Can identify different levels of understanding, e.g. culturally implicit undertones

Can show linguistic flexibility and scalability

Can access different language registers including linguistic creativity (humour)

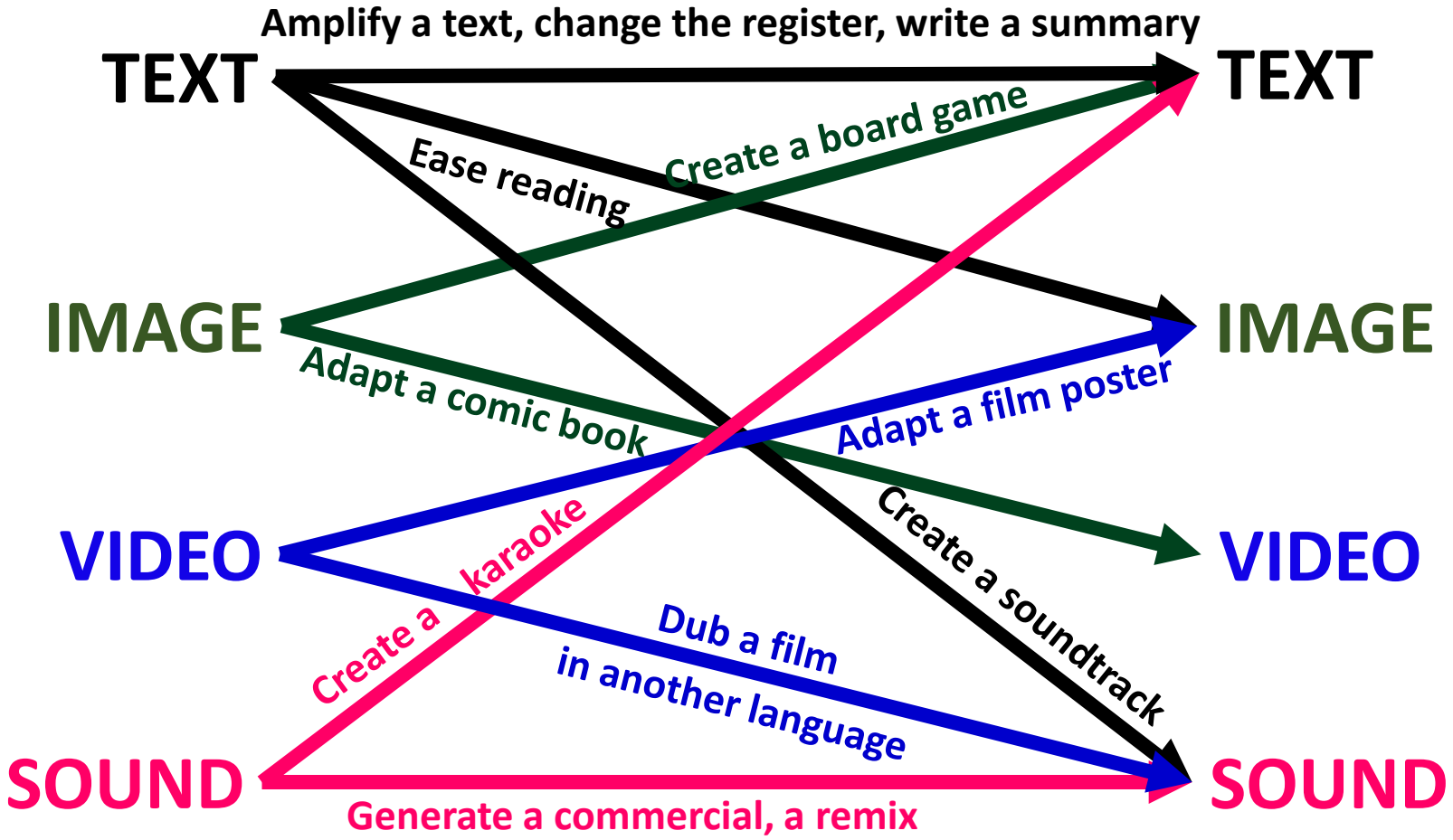
Can handle cultural nuances like linguistic idioms or cultural specificities

Can improve over time based on new experience

Generative AI

Use the flexible multimodal tools in order to develop your students' creativity and critical understanding of the world

David Hasselhoff, *Looking for freedom* – Dall.e



Digital literacy for the teaching and learning of languages
Digital citizenship through language education

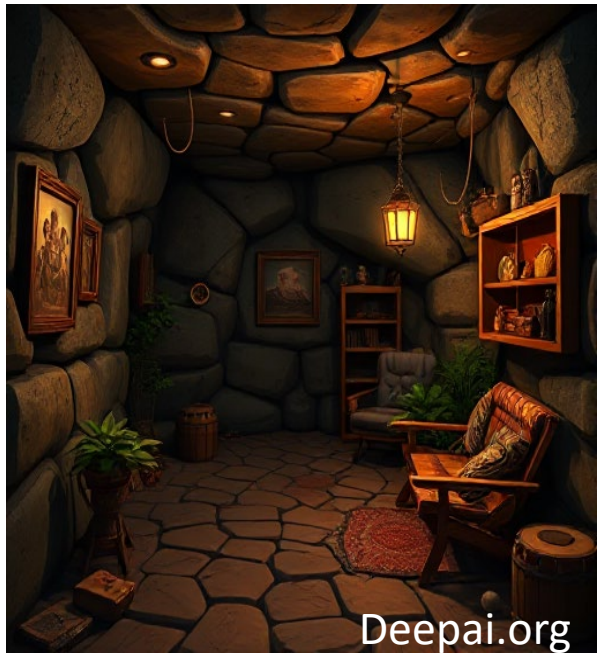
Socio-interactional approach

→ Using Internet to offer learners real-world tasks in order to foster social interactions:

- *Co-write a Wikipedia article*
- *Moderate an international webradio*
- *Create a flashmob via a social network*

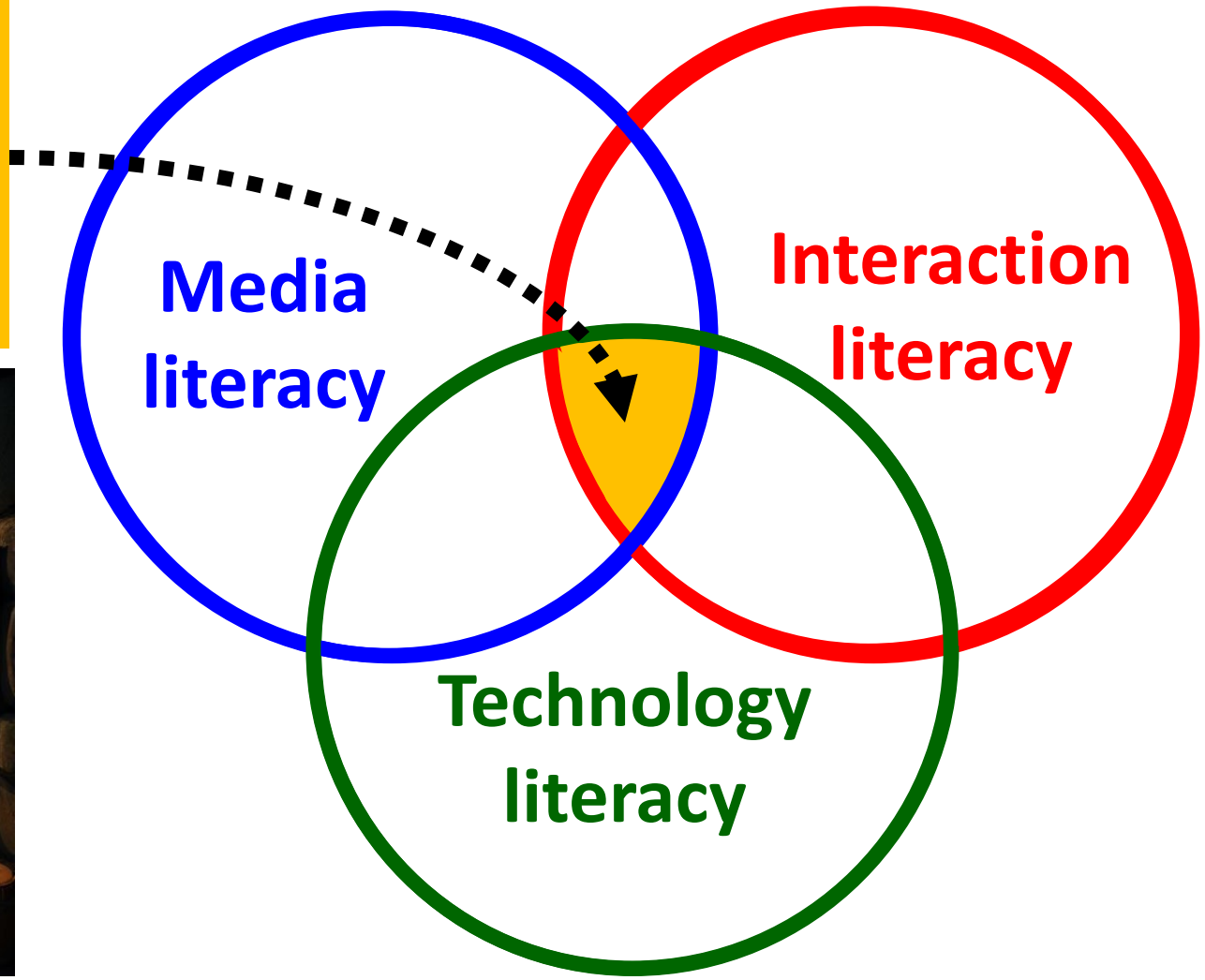
Explore new possibilities with generative AI :

e.g. work together on a scenario for an escape game.

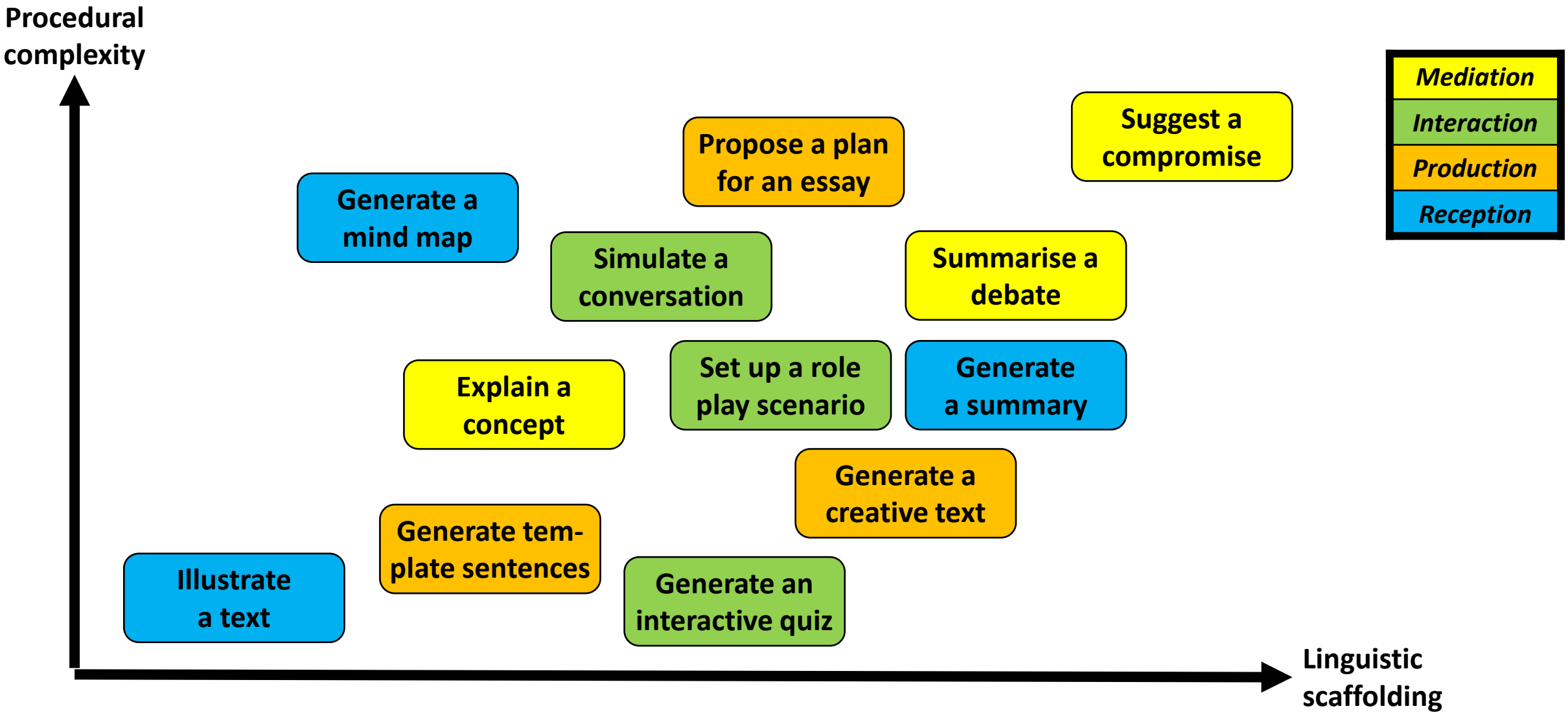


Literacy

1. **Understand**
2. **Use**
3. **Evaluate**



Generative AI and language acquisition



Using generative AI to support reciprocal communication

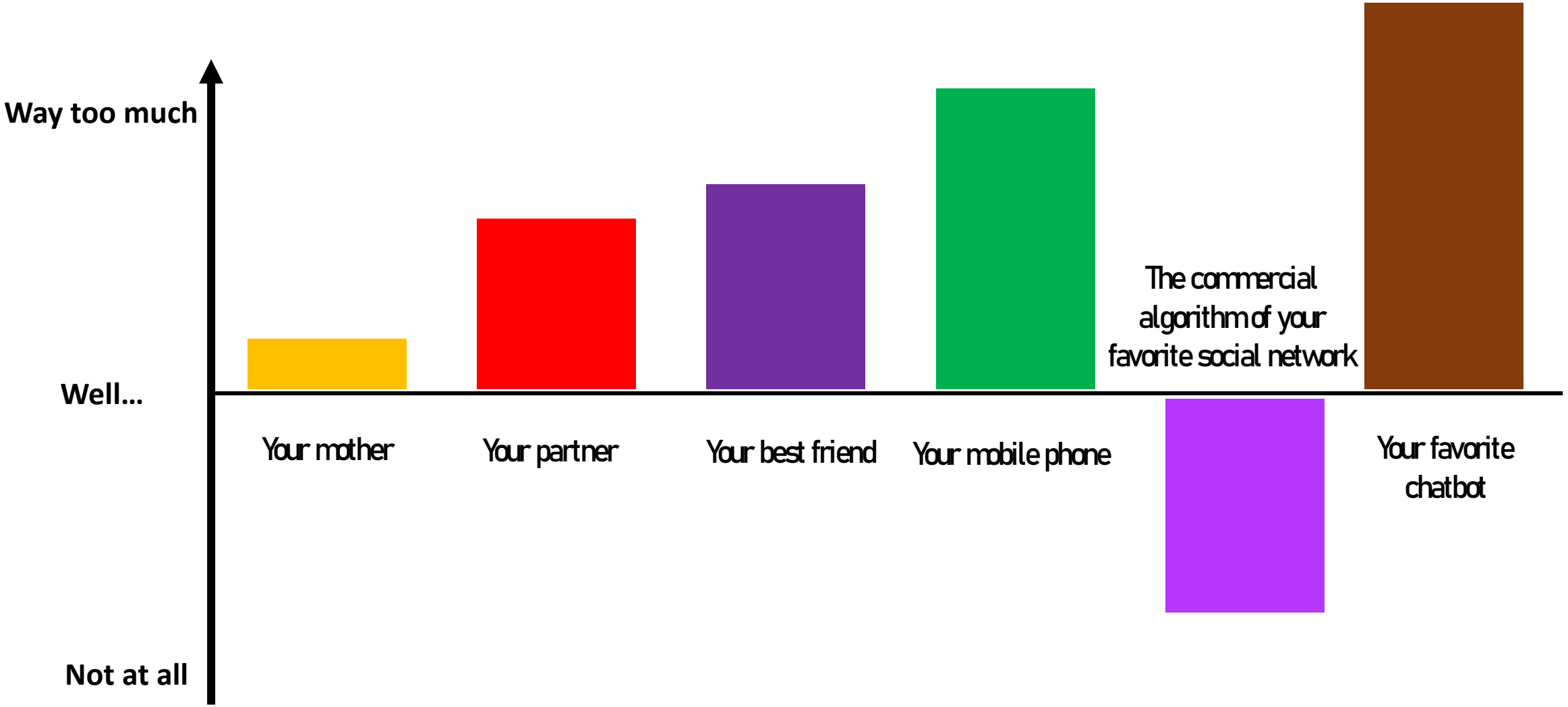
TTI	TTT	TTS	TTV
Kamishibaï theater	New board game	Fashion show	Immersive city trip
			

ITT	TTT	STT	VTT
Bil. alphabet book	River biography	Karaoke	Virtual visit
			

2. Take back CONTROL

How to use AI in a safe environment

Guess who knows you best?

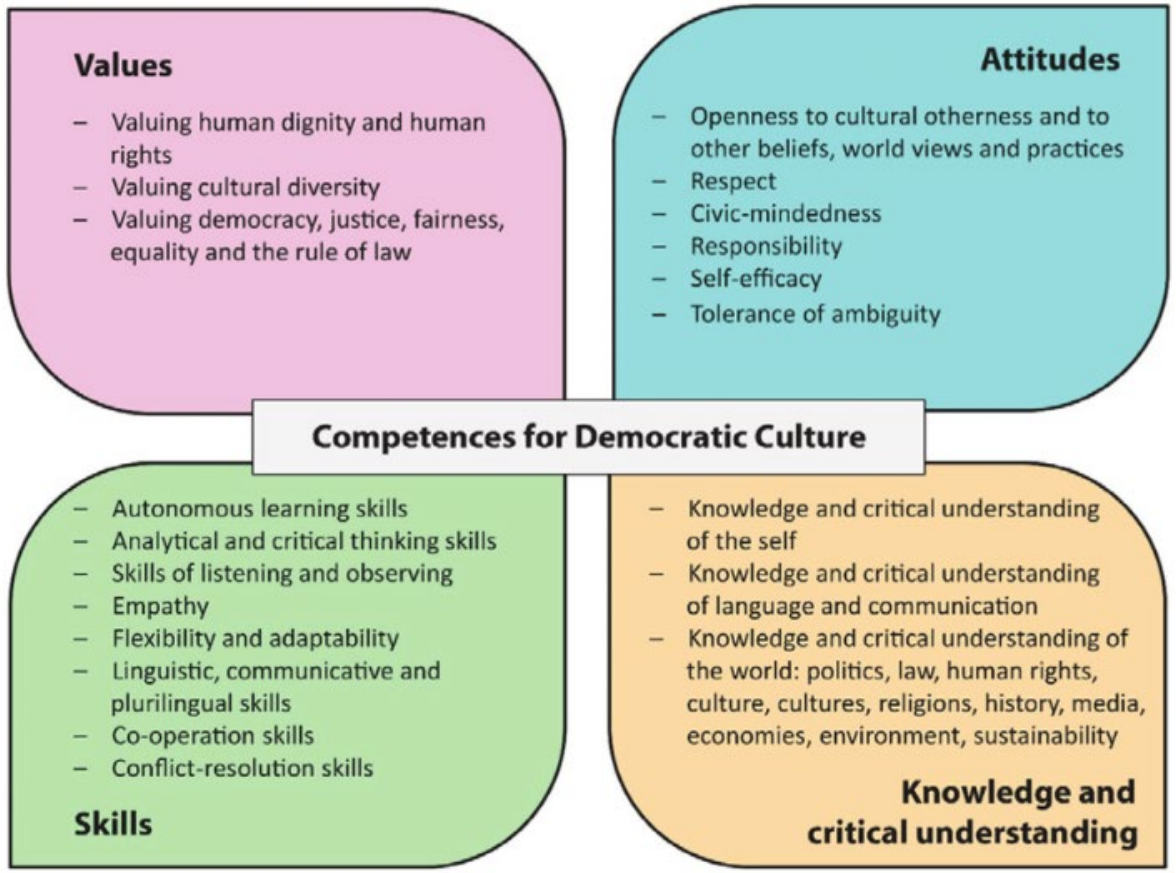


Inspired from K.Berlin, P.Gründlich, *Was wir tun, wenn der Chef reinkommt*, Heyne, München 2015

Importance of plurilingual and intercultural education for democratic culture CoE 2022

- **Learning about AI**
  - Data ethics
  - Understanding algorithmic logic
  - Fighting disinformation
- **Teaching AI**
  - Social media
  - Digital citizenship
  - Democratic engagement
- **Teaching with AI**
  - Inclusion
  - Differentiation
  - Equity
  - Mediation

Recommendation *CM/Rec(2022)1* adopted by the Committee of Ministers of the Council of Europe on 2 February 2022
https://rm.coe.int/prems-013522-gbr-2508-cmrec-2022-1-et-expose-motifs-couv-a5-bat-web/1680a967b4ECML



The RFCDC conceptual model of democratic and intercultural competence, CoE 2016

Generative AI:
Key issues for language education?

3 i	Learning about AI *Understanding*	Teaching with AI *Supporting*	Teaching AI *Critical thinking*
Information *Verifying*	• *Data ethics* • *Algorithmic logic* • *Bias, disinformation*		
Inclusion *Using*		• *Differentiation* • *Equity* • *Mediation*	
Itinerary *Evaluating*			• *Social media* • *Digital citizenship* • *Democratic culture*

Cultural bias
Prompting

Semiotics
Translation

AI Literacy

PROMPTING TECHNIQUES

How to *co*-generate great answers?

Role | **Task** | **Goal** | **Context**

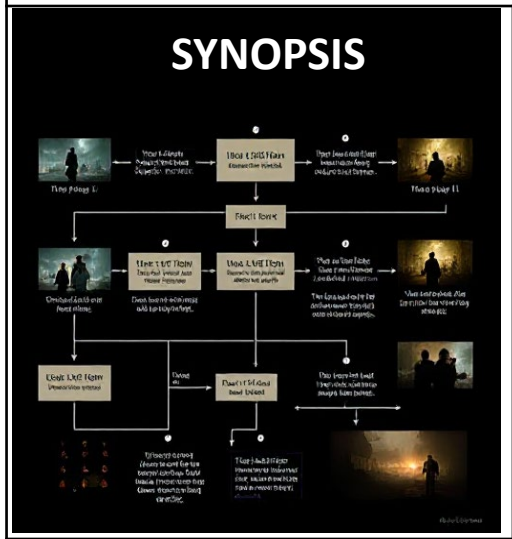
Don'ts	Tell me someting about cats.	I want to find out about space.
Dos	"As a biologist, give 5 scientific facts about the behavior of domestic cats. I want to optimize my home for hosting a cat. My home is 20m2 and has a balcony."	"As an astrophysicist, what would you say is the main challenges of colonizing Mars. I am in 10th grade and have a presentation to make. This is not a very scientific class, so I need to keep things simple."

ADVANCED PROMPTING

Human Strategy								AI acting Roles				
P	R	O	M	P	T	S		Brain-stormer	Writing assistant	Training assistant	Consultant	Forecaster Planner
A	R	T					Action; Role; Target		☺			
F	A	C	E				Function; Action; Context; Example	☺	☺	☺		☺
C	A	F	E				Context; Action; Format; Expected outcome	☺			☺	
R	O	S	A	C	E		Role; Objective; Steps; Art; Context; Example		☺		☺	
T	R	A	C	E	S		Task; Request; Action; Context; Example; Style			☺		☺
A	P	R	I	C	O	T	Action; Purpose; Role; Input; Context; Objective; Technique			☺	☺	

AI technology vs. learning goals

How can you find the best responses?

Generative AI		Adaptive learning	
…describes algorithms that can be used to create new content, including audio, code, images, text and videos.		*…uses data-driven instruction to adjust and tailor learning experiences in order to meet the individual needs of each student.*	
	*Students discuss in group the best way to adapt a film scene to another cultural context. They use generative AI:* - *to gather additional ideas* - *to illustrate the plot*		*A student benefits from AI-based personalised feedback in order to improve his writing work step by step. The AI tool does not do the work for the student but identifies strengths and potential for improvement in order to foster writing strategies and critical thinking.*

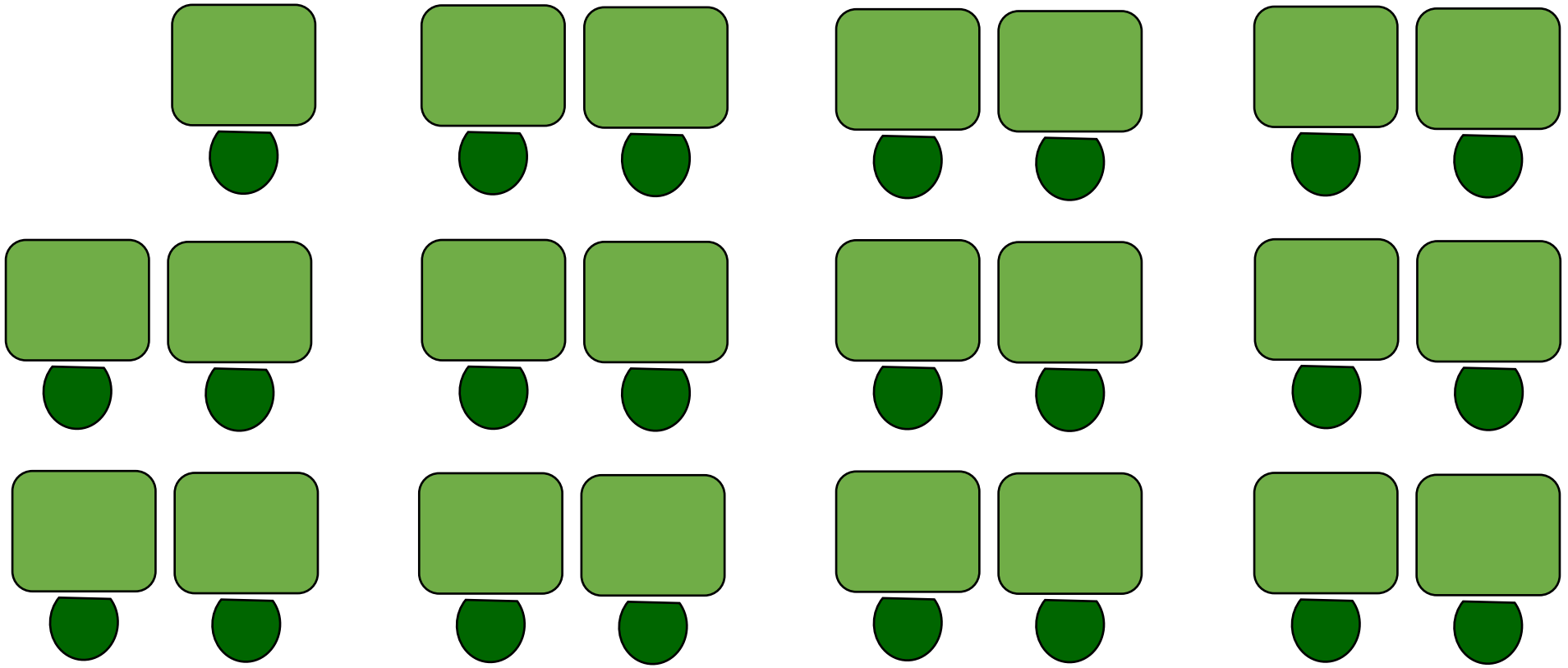
AI technology vs. learning goals

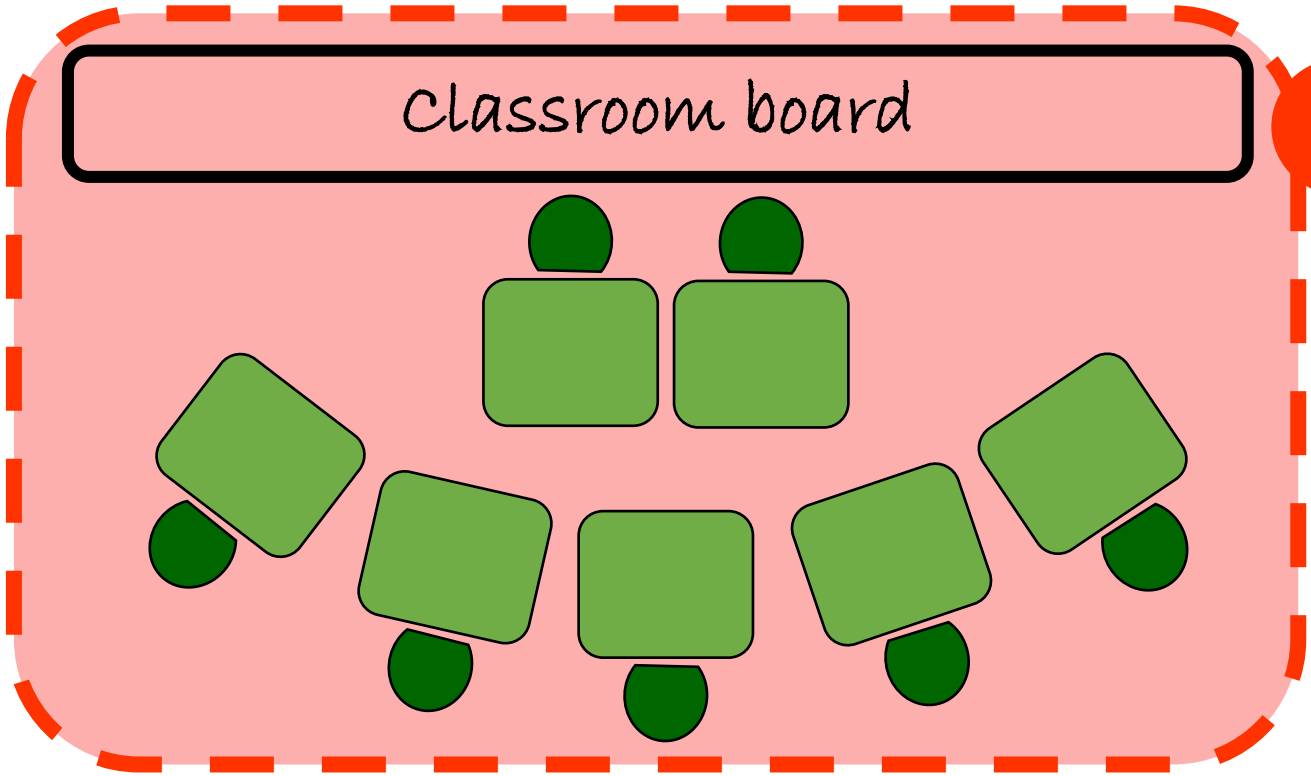
How can you find the best responses?

	Generative AI	Adaptive learning
	…describes algorithms that can be used to create new content, including audio, code, images, text and videos.	*…uses data-driven instruction to adjust and tailor learning experiences in order to meet the individual needs of each student.*
Language proficiency	*Modelling*	*Personalised feedback without doing the work for you*
Communication strategies	*TIi can foster comprehension strategies* *Co-writing*	*Guided approach to non-reciprocal communication strategies*
Intercultural dialogue	*Critical thinking about in the AI tool embedded cultural bias*	*Critical thinking about cultural bias embedded in the methodology*
Learning autonomy	*Only if the learner knows how to make the most of generative AI*	*Pre-designed training scenarios*

Classroom board

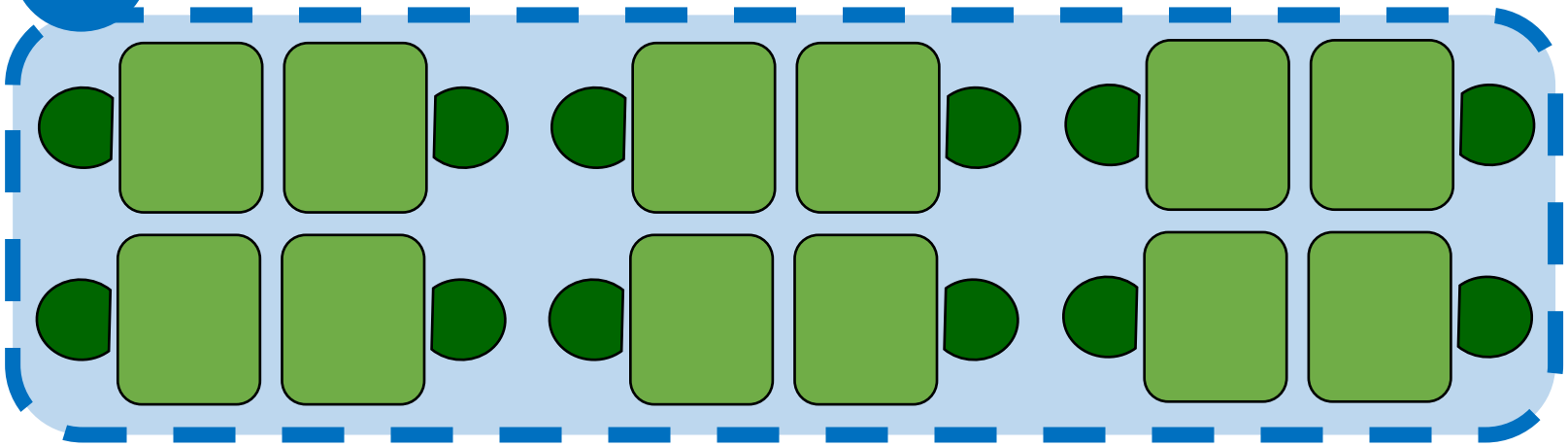
Teacher's desk

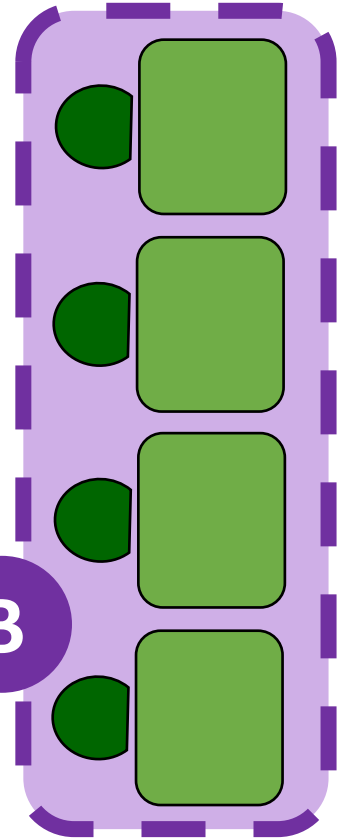




C **Generative AI-supported communication:** ***presentation, debate, flipped teaching etc.***

A **Generative AI-based project management tools**

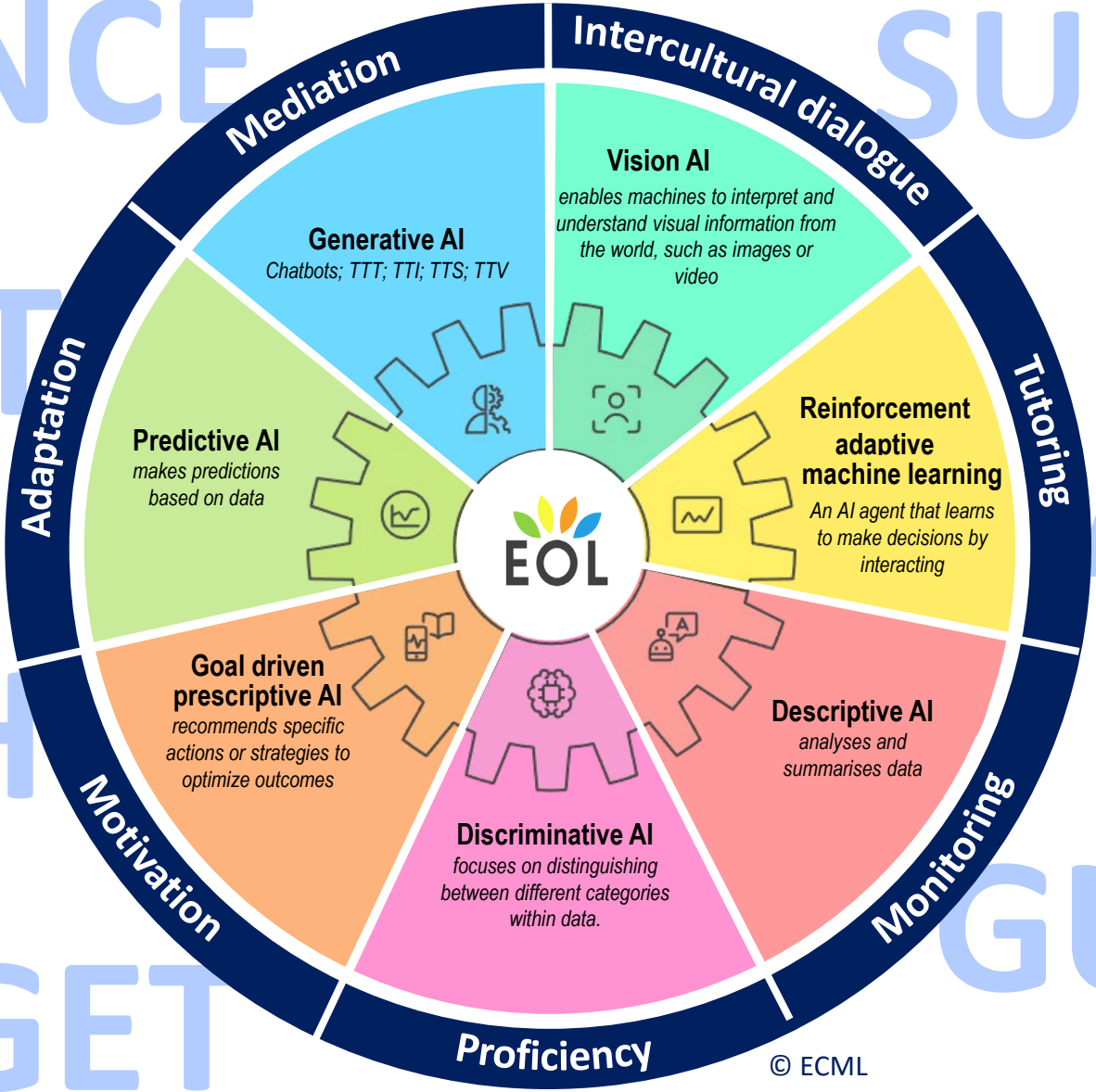




B **AI-based adaptive learning solution**

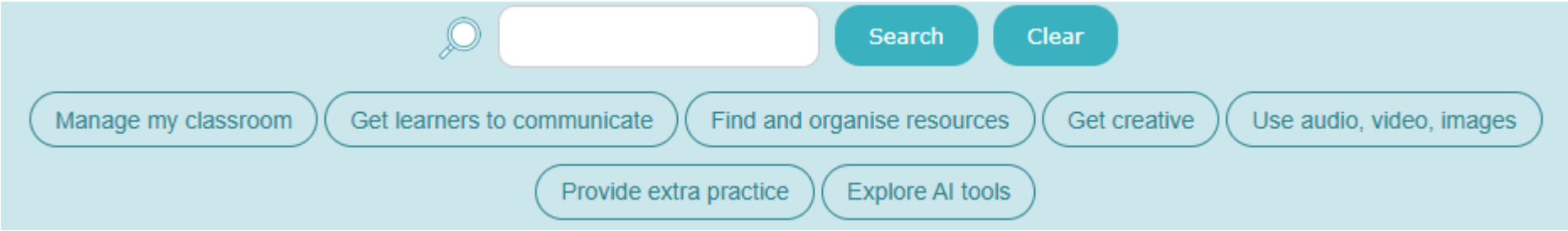
What is the current AI landscape?

ENHANCE SUPPORT PREVENT ADAPT COACH GUIDE TARGET



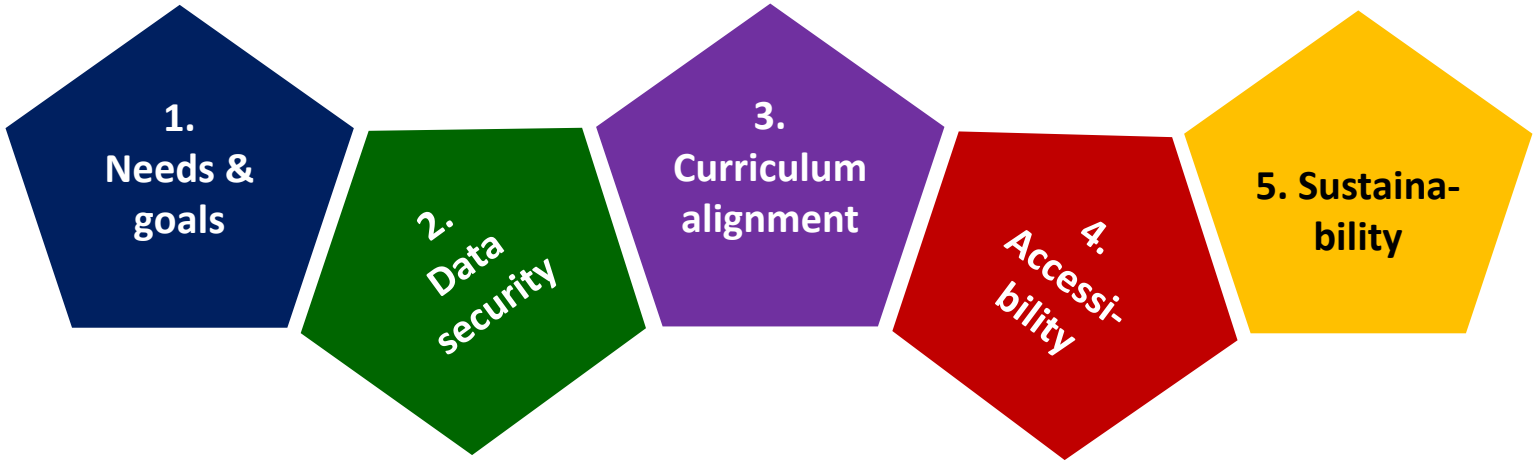
ICT-REV platform

Inventory of ICT tools and open educational resources

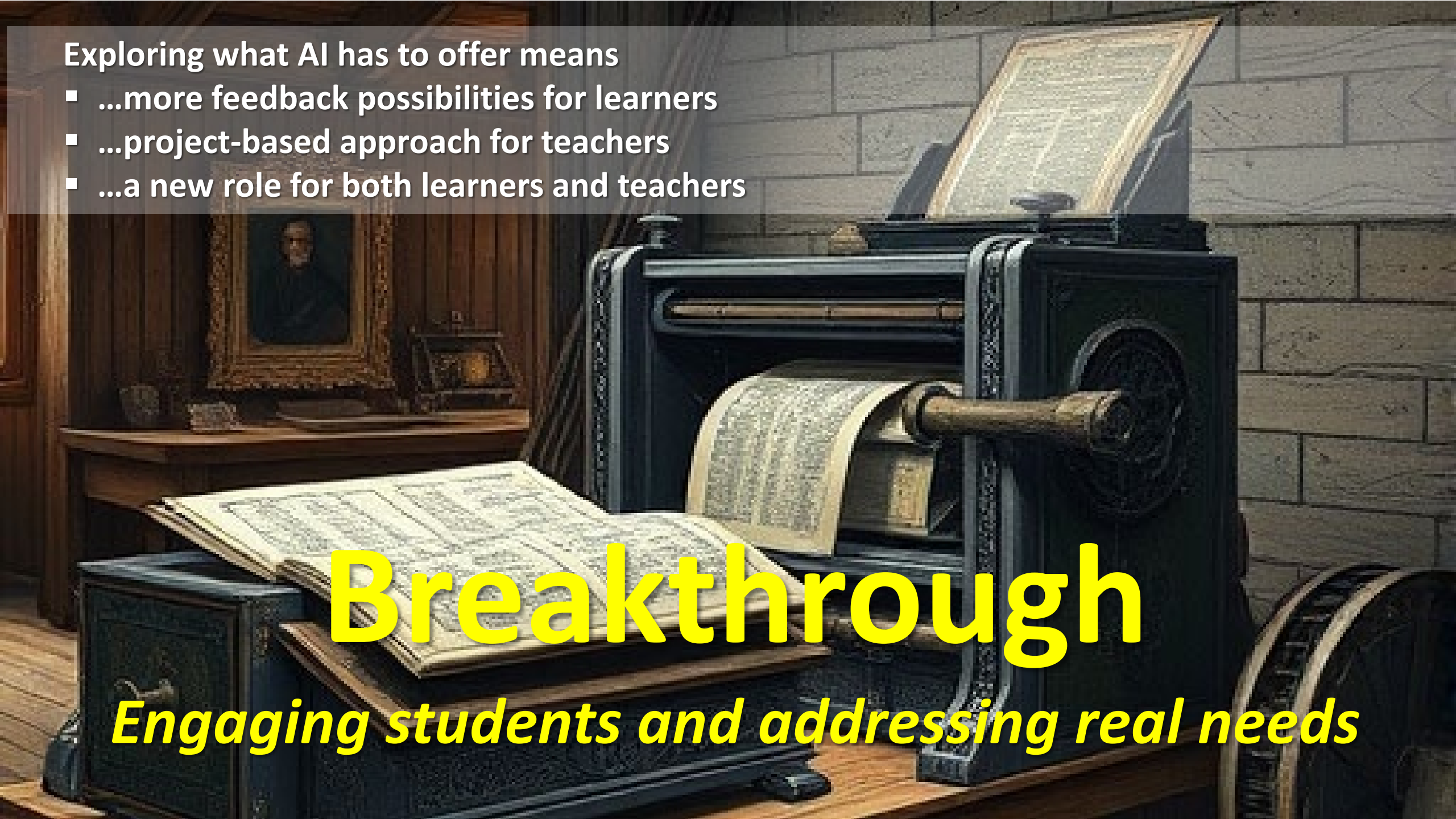


itinerary	Monitoring, adaptation, formative assessment
inclusion	Support, differentiation, personalised training
information	Data, critical thinking, learning opportunities

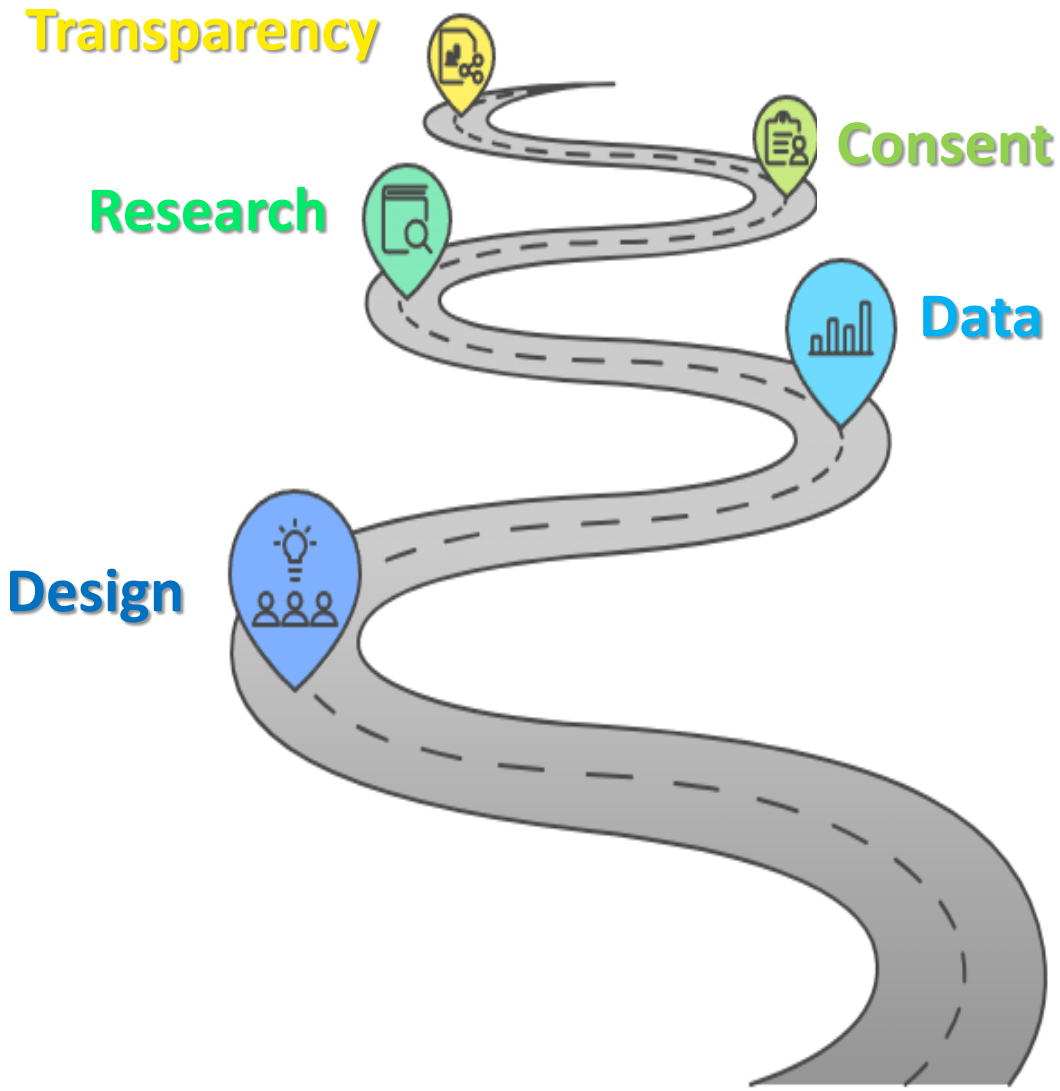
5 steps to select AI tools:

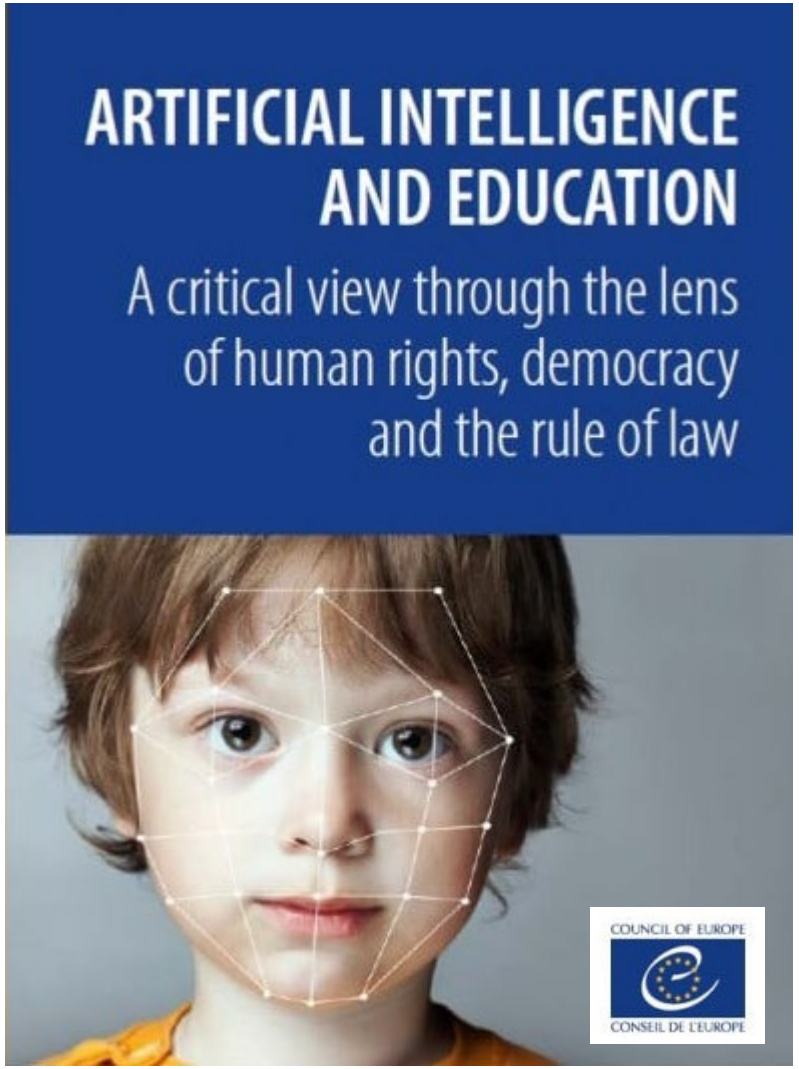



Q?
A


Exploring what AI has to offer means
…more feedback possibilities for learners
…project-based approach for teachers
…a new role for both learners and teachers
Breakthrough
Engaging students and addressing real needs

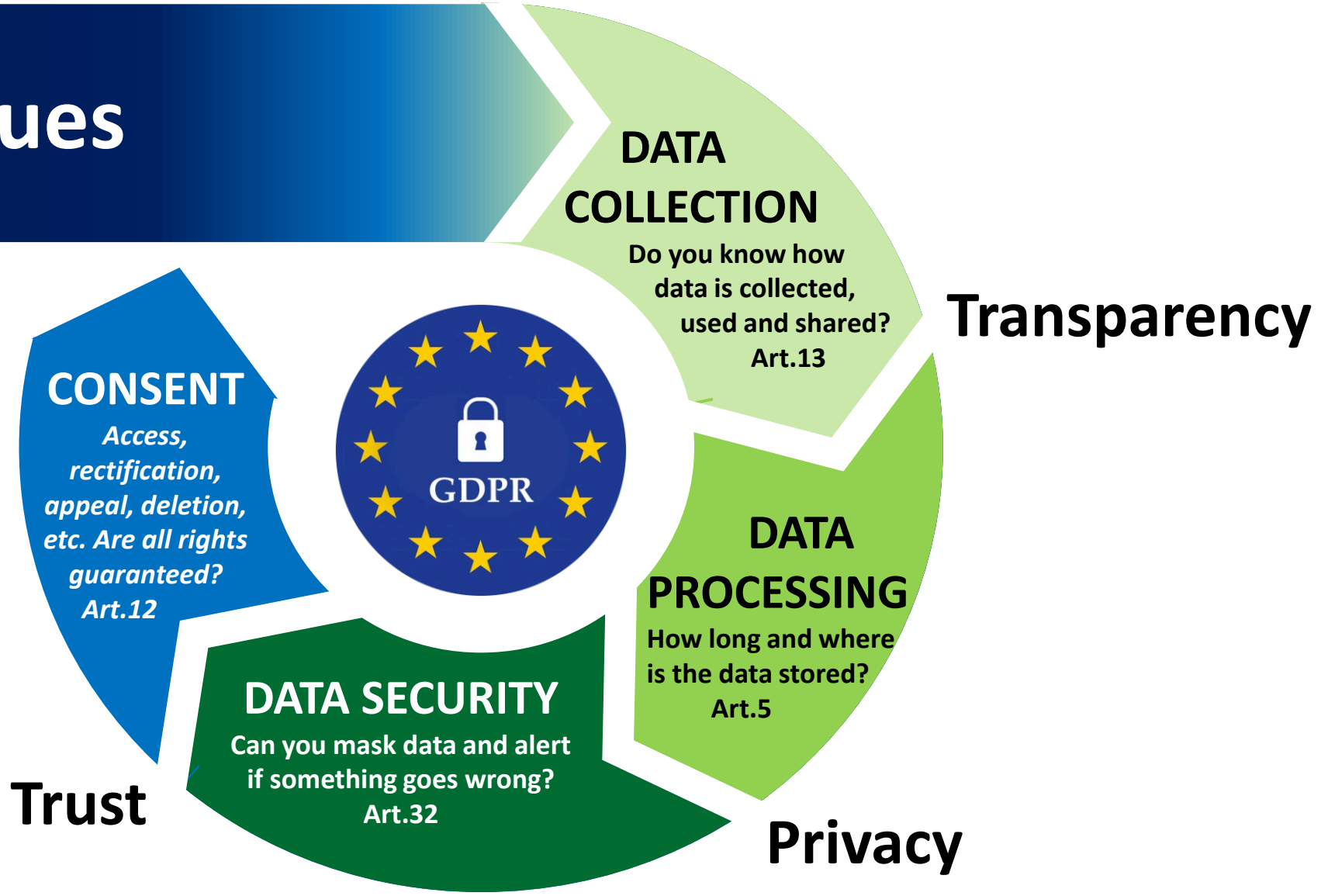
Integrating AI in education





General Data Protection Regulation (GDPR) compliance

Identify key issues



AI and data literacy

What about the language dimension?

AI Literacy refers to the knowledge and skills required to understand, use, and critically evaluate artificial intelligence (AI) technologies. It encompasses a broad range of competencies that enable individuals to interact effectively with AI systems and understand their implications. https://consensus.app/questions/what-literacy/

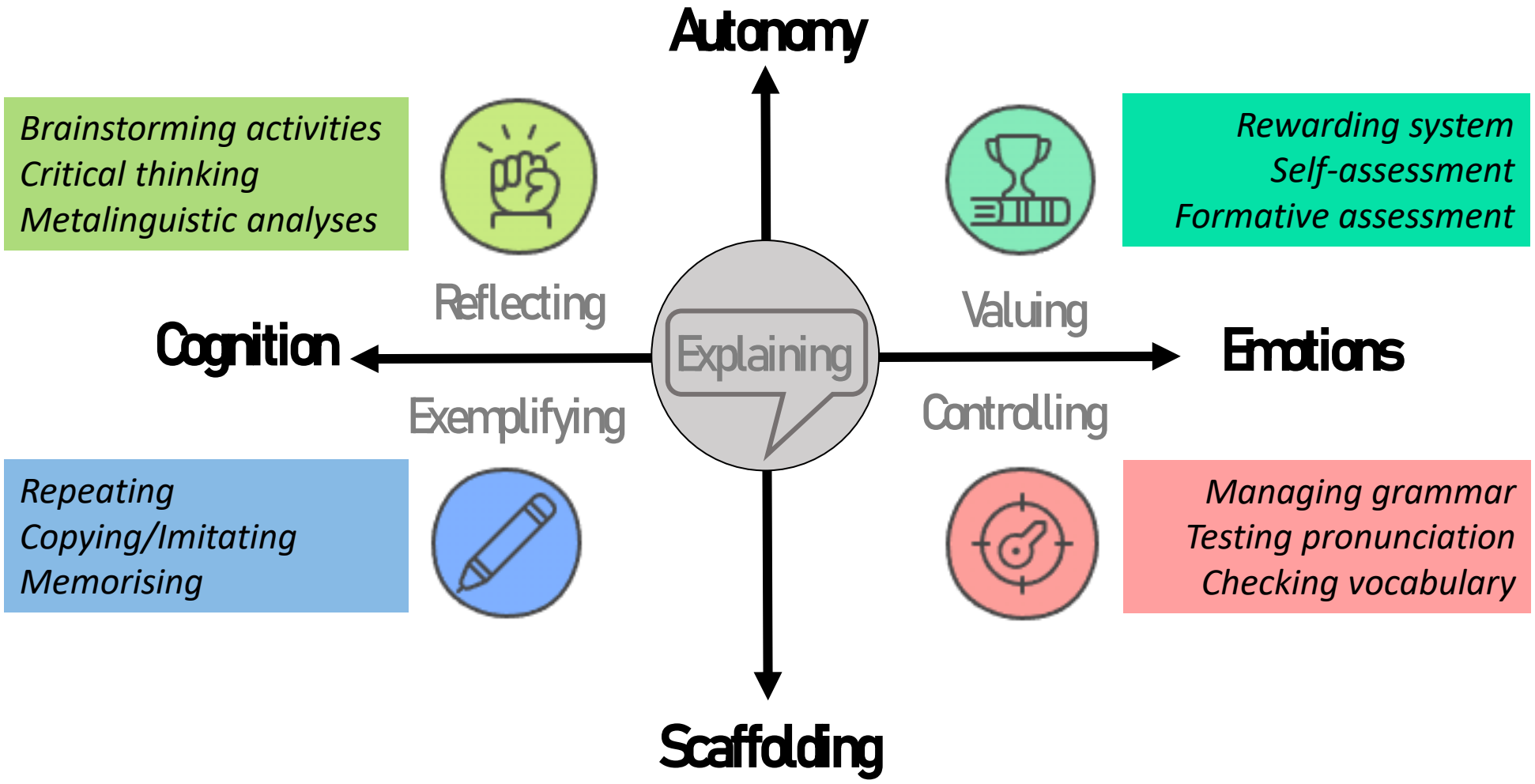
No skills required	Basic skills	Some experience	Expertise

Languages & literacy	How does the machine work?				How do humans behave?		
	Understanding how AI works	Information and critical thinking	Human-Machine Interaction	Contextualisation and Application	Autonomy and Self-Efficacy	Ethical Considerations	Consent
Coding skills							
Technical language							
Subject specific literacy							
Everyday language							
Plurilingual and inter-cultural mediation							
Democratic culture							

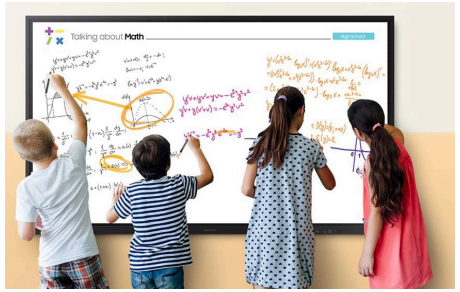
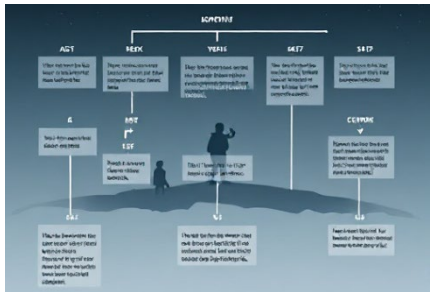
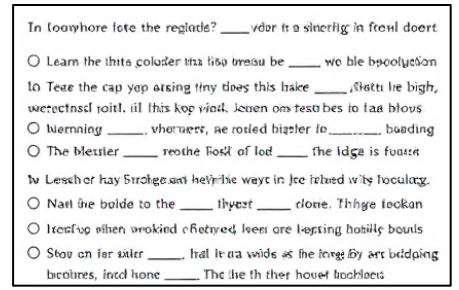
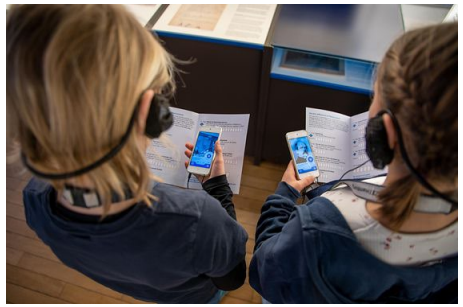
More information: https://www.europa-uni.de/de/universitaet/einrichtungen/serviceeinrichtungen/zentrum-lehre-lernen/schreibzentrum/schreibintensive-lehre/ki-reflexion/

Feedback: Monitoring the learning process

To what extent?



Various possibilities to use generative AI in FL class

	TTI	TTS	VTT	Chatbot
Feed *back*	**Generate a Flipbook** with **Scribble diffusion**	**Set up a speaking white board** with **Speechify**	**Summarize a movie scene** with **NoteGPT/Chatmind**	**Generate a fill-in-the-blanks test** with **Gemini**
				
Feed *forward*	**Illustrate a text** for other students with **Deepai**	**Generate an audioguide** with **TTSmaker**	**Create an interview with an actor** with **NotebookLM**	**Co-write a thriller** with **ChatGPT**
				

From feedback to feedforward

How to engage students in a project-based approach

Simple → **Complex**

Illustrate idioms with TTI tools

Create with TTI tools a cultural board game for partner students

Cognitive skills				
Technical & digital skills				
Self-management skills & agency				
Social and civic skills				
Plurilingual & intercultural skills				

Adapt a text into a song with TTS tools

Replay a movie scene in your own context in order to share cultural insights. Work on the scenario with a chatbot

Cognitive skills				
Technical & digital skills				
Self-management skills & agency				
Social and civic skills				
Plurilingual & intercultural skills				

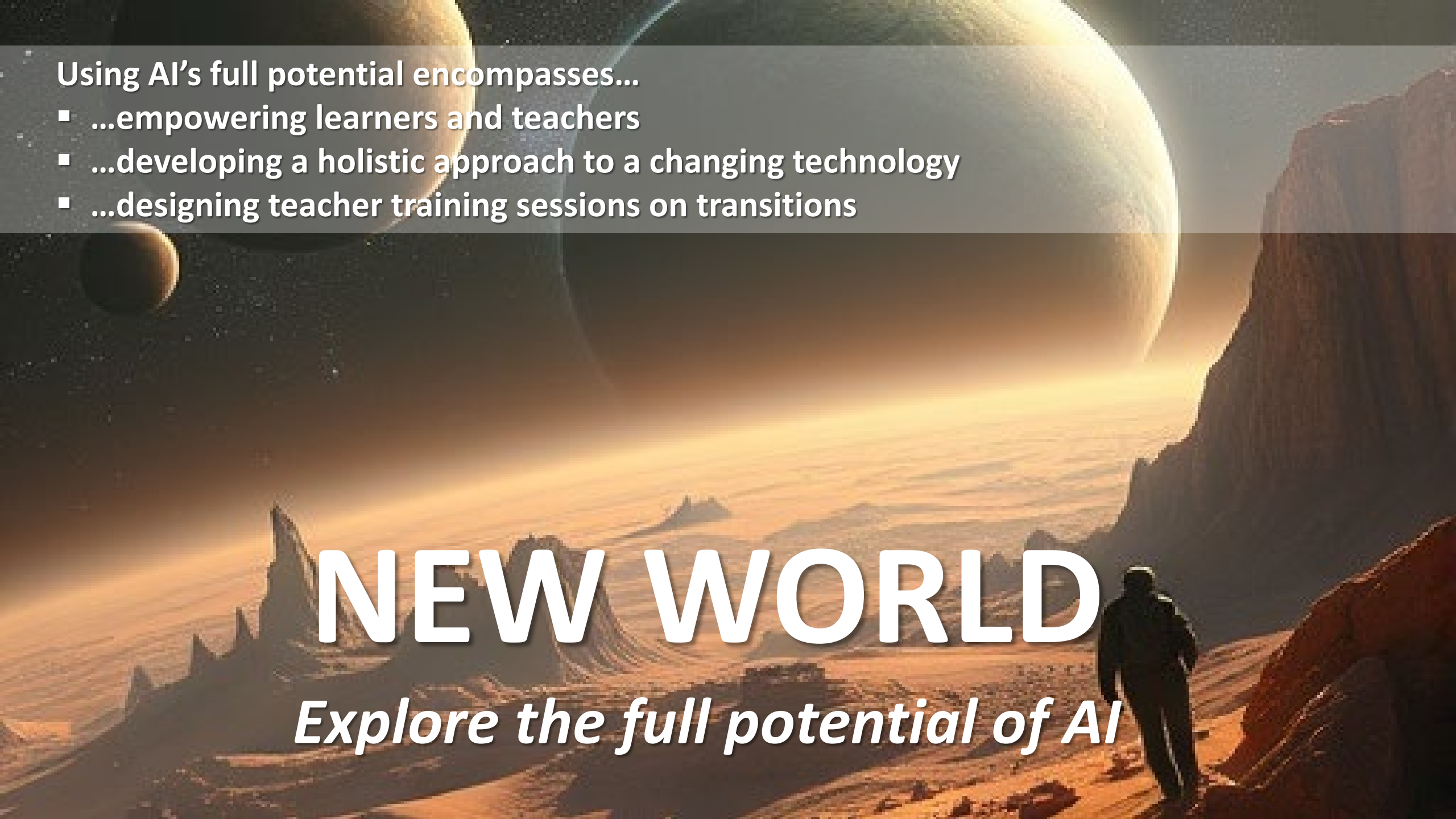
Write a guide for tourists with a chatbot

Become an intercultural mediator with the assistance of machine translation in order to guide foreign tourists through your city

Cognitive skills				
Technical & digital skills				
Self-management skills & agency				
Social and civic skills				
Plurilingual & intercultural skills				

How does AI assistance change education ?

Roles	***Students become mediators and teachers pedagogical engineers***
Scenarios	***Personalise education through self-directed projects***
Assistance	***Compensate specific needs and value diversity***
Assessment	***Monitor the learning process and encourage progress***
Engagement	***Design the classroom as a collaborative learning labs***



Using AI's full potential encompasses…

- …empowering learners and teachers
- …developing a holistic approach to a changing technology
- …designing teacher training sessions on transitions

NEW WORLD

Explore the full potential of AI

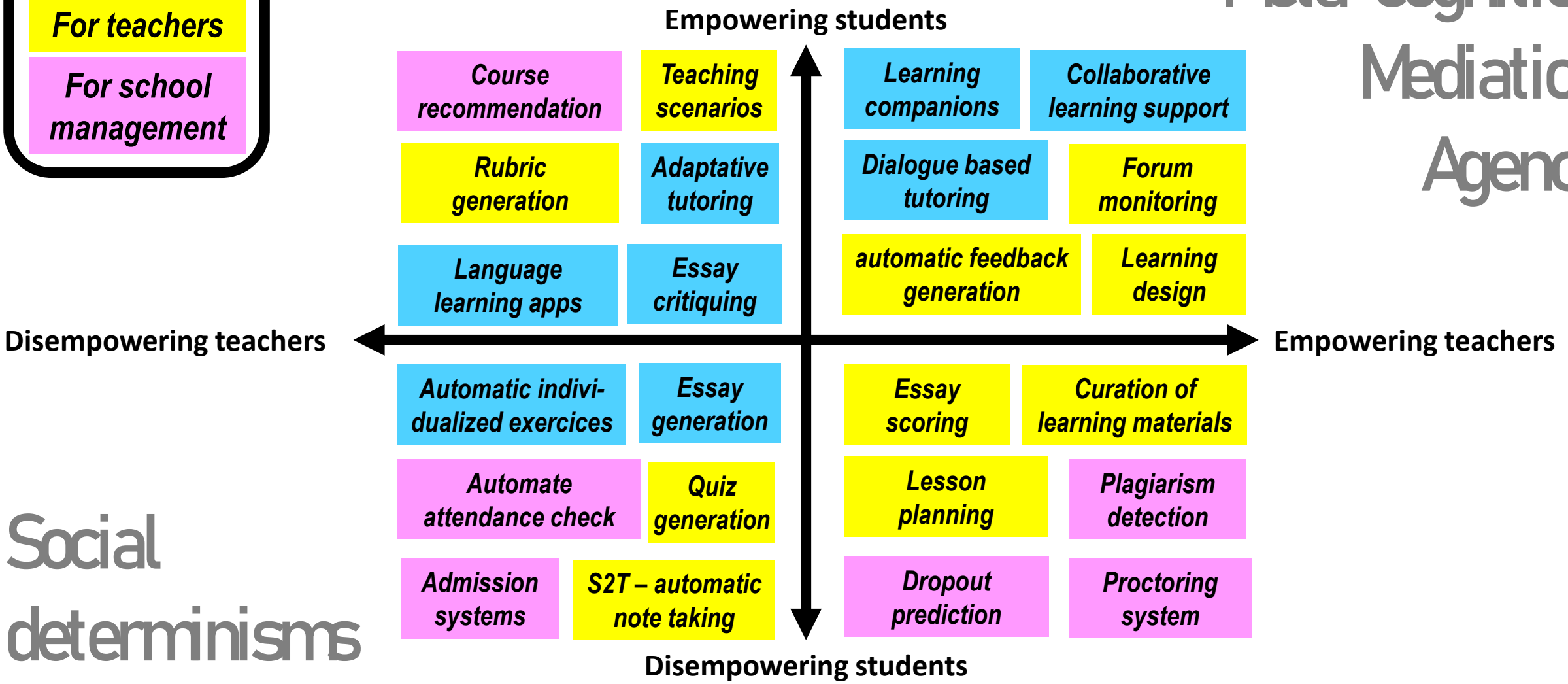
Mapping AI tools

For learners

For teachers

For school management

Critical thinking, Meta-cognition Mediation Agency



Social determinisms

Using AI to support the learning process

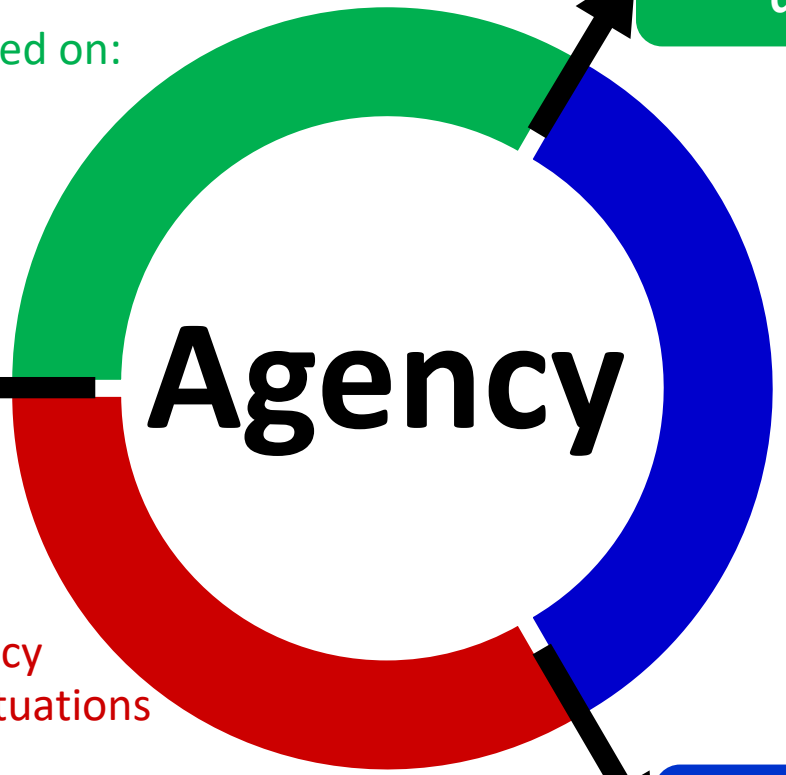
#1. Students' agency

Fulfilled learner*

Self-determination is based on:

- relatedness
- competence
- autonomy

How can AI support decision making?



How can AI support communication strategies?

Independent user**

(CEFR B-level)

- Having the necessary fluency to communicate in most situations
- Acting as a mediator to facilitate the inter-cultural dialogue.

Active citizen***

Committed citizenship is based on:

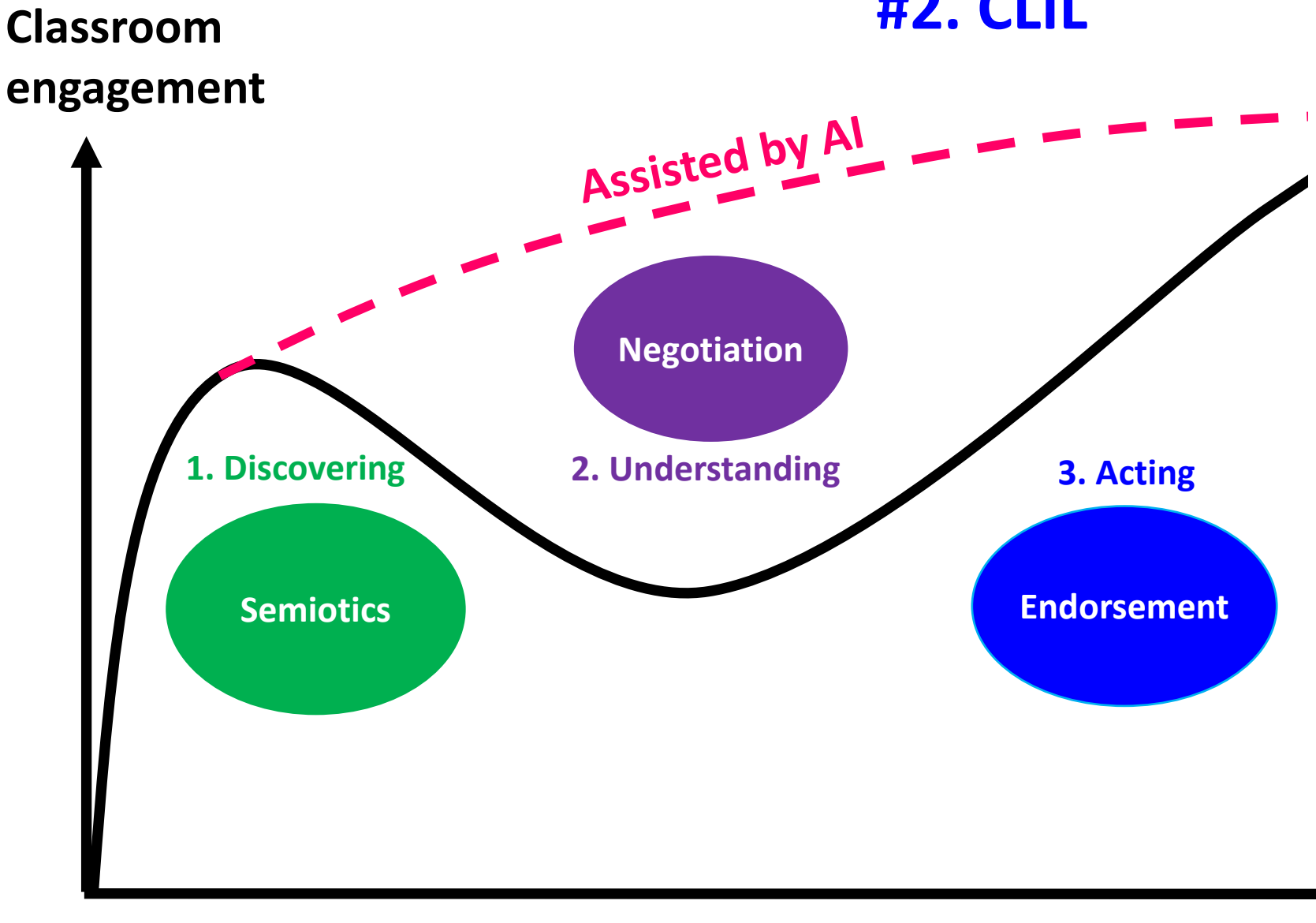
- common values
- a sense of public interest
- team spirit

How can AI support social engagement?

***Edward Deci & Richard Ryan**, *Self-determination theory*, Guilford Press, New-York (2017)
** **CEFR** : *Common European Framework* (2001) and its *Companion Volume* (2018), Council of Europe
*** **RFCDC** : *Reference Framework of Competences for Democratic Culture* (2018), Council of Europe

Using AI to support the learning process

#2. CLIL



How can AI support students?

- **Personalising the path**
- **Overcoming linguistic insecurity**
- **Maintaining student motivation**

Beacco, Coste et alli, *The place of the languages of schooling in the curricula*, COE 2015

Beacco, Goullier et alli, *The language dimension in all subjects*, COE 2016

Using AI to support the learning process

#3. Flipped teaching

Reception assistant

- Dialogue with any document
- Accelerate reading
- Generate a table of content

Meeting assistant

- Smart recording
- Transcribe the discussion
- Summarise a presentation

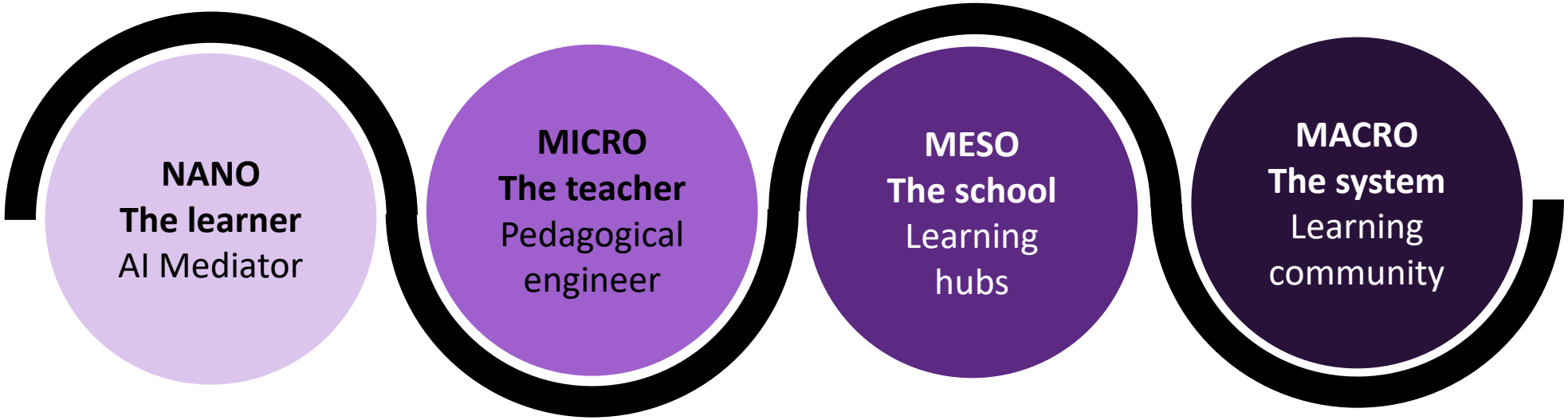
Multimodal assistant

- Identify intersection between different documents and create a FAQ
- Summarise a whole file as a podcast

From flipped classroom… …to flipped teaching

Contextualising the rules around AI in a collective process

#4. Holistic approach



What is the process?	• Consent & decision making • Logical & critical thinking • Agency • etc.	• Co-education with parents • Formative assessment • Flipped teaching • etc.	• Data security • Project based approach • Action research strategy • etc.	• Communication • Partnerships • Networking • etc.
What does it mean for language education?	**Foster competences for democratic culture…**	**Prioritise reciprocal communication…**	**Link to transversal education…**	**Develop plurilingual & intercultural education…**
	…in order to adapt to ongoing change			

Language education & EdTech development

Education data

Data-Driven Language Performance Analysis

- learning process
- plurilingual repertoires
- equity in education

Robotics

Language-Supporting Robot Role Play

Using programmable robots to engage in role-play intercultural scenarios

Coding

Creating a simple language learning app with the students

Developing language skills through coding and creative problem-solving

No screen education

Gamification: treasure hunt, escape game, inquiry…

- Collaboration
- Creativity
- Problem solving

Feedback

Peer collaboration with AI-assistant

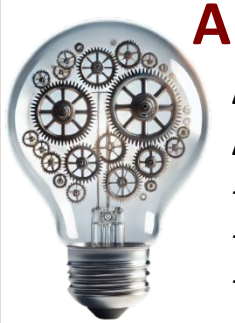
- Metalinguistic skills
- Metacognitive skills
- Transparency

Tailor-made solution

Personalised language challenges based on progress

- Profiles
- Repertoires
- Autonomy

AI literacy



AI-Powered Language Assistant Creation

- Understanding
- Using
- Evaluating

STEAM

STEAM Fair with plurilingual presentations

Combining scientific inquiry and creative language use in a hands-on, international project

Communication

Recording studio

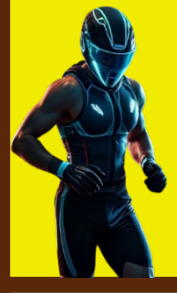
- Mooc video presentation
- Flipped teaching
- Webradio show

E-sport

International gaming competition

with live multilingual commentary and intercultural collaboration

Cyber Fitness



Immersive multilingual fitness parkour

- Collaborating on a motivational rhetoric
- Offering an immersive learning experience with XR

School safety

Multilingual Crisis Simulation

- Collaborating
- Adapting and using intercultural skills under pressure

How AI might impact teacher professional development

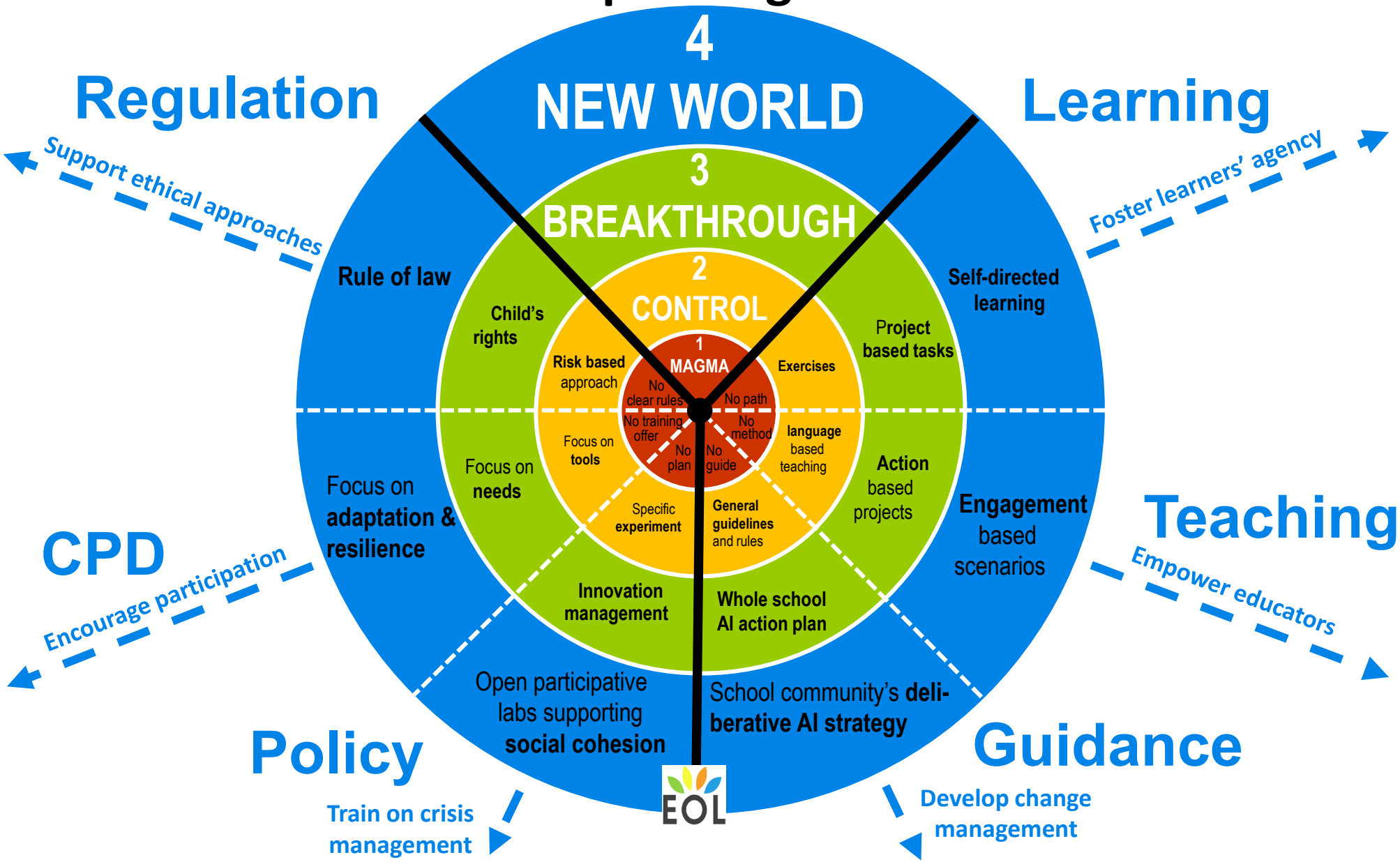
Teacher & learner competences	Plurilingual & intercultural education	Sign languages	Migrant education & employment	New media in language education	Curricula & evaluation	Early language learning	Content & language integrated learning	Languages of schooling
approach		**socialisation**		**resources**		**pathways**		**literacies**
AI *Prioritising reciprocal language activities – interaction and mediation – for learners' social engagement*		**AI** *Promoting language repertoires, simplify access to meaning, diversify sources of information, recognise cultural specificities, value diversity and tolerate ambiguity*		**AI** *Learning how to adapt to changing technology and configure your own learning environment*		**AI** *Monitoring learners' progress, particularly through personalised support and educational differentiation*		**AI** *Strengthening media literacy, information literacy, data and artificial intelligence literacy*

1. ítinerary

2. ínclusion

3. ínformation

EOL transition model in plurilingual & intercultural education



Thank you very much!