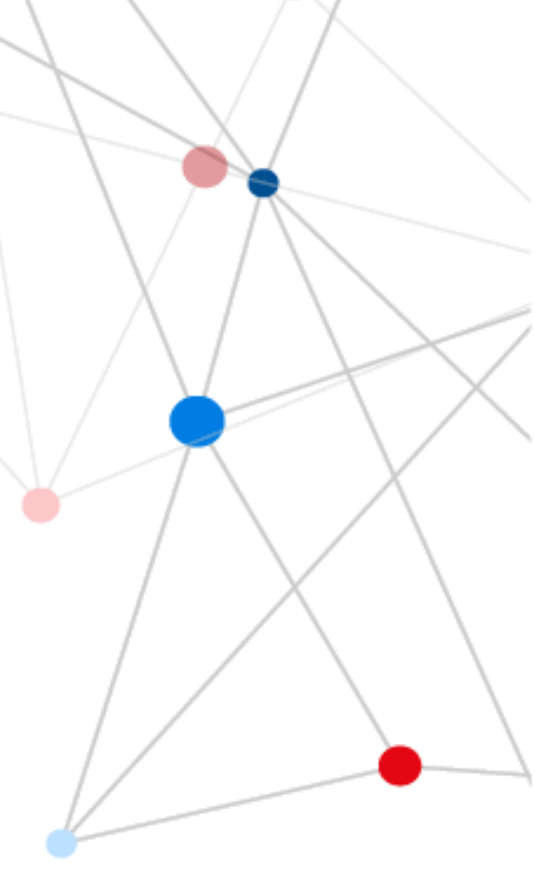


10. Presentation

"Academic Recognition Practitioners' Experience with Digital Solutions and Artificial Intelligence for Mobility and Recognition of Qualifications"

▾ Discussion with the audience





Academic Recognition Practitioners' Experience with Digital Solutions and AI

ISOM Meeting

Bangkok, 19 November 2024

Francesca Villa, Senior Credential Evaluator CIMEA-NARIC Italia

Giselle Heleg, AI Expert, CIMEA-NARIC Italia

Who's CIMEA

Since 1984, CIMEA – Information Centre on Mobility and Academic Equivalences has provided information and consultancy on qualification recognition procedures and issues related to Italian and international higher education.

**Credential
Evaluation
Unit**



Projects Unit



CIMEA

**Secretariats
and Networks
Unit**



Under Article IX.2 of the Convention on the Recognition of Qualifications in the European Union, CIMEA has been designated by the Ministry of Education, University and Research (MIUR) as the National Information Centre for recognition procedures in Italy, the Italian higher education system, and national qualifications.

The Growing Importance of Academic Recognition

2000

Higher education enrollment: 117.5 million students worldwide.

2022

256 million students in higher education globally.
More than **6 million internationally mobile students**.

Present

Recognition crucial for global education and labor markets.



Challenges in Traditional Academic Recognition

1

Administrative Inefficiencies

Slow processes hinder timely recognition of qualifications.

2

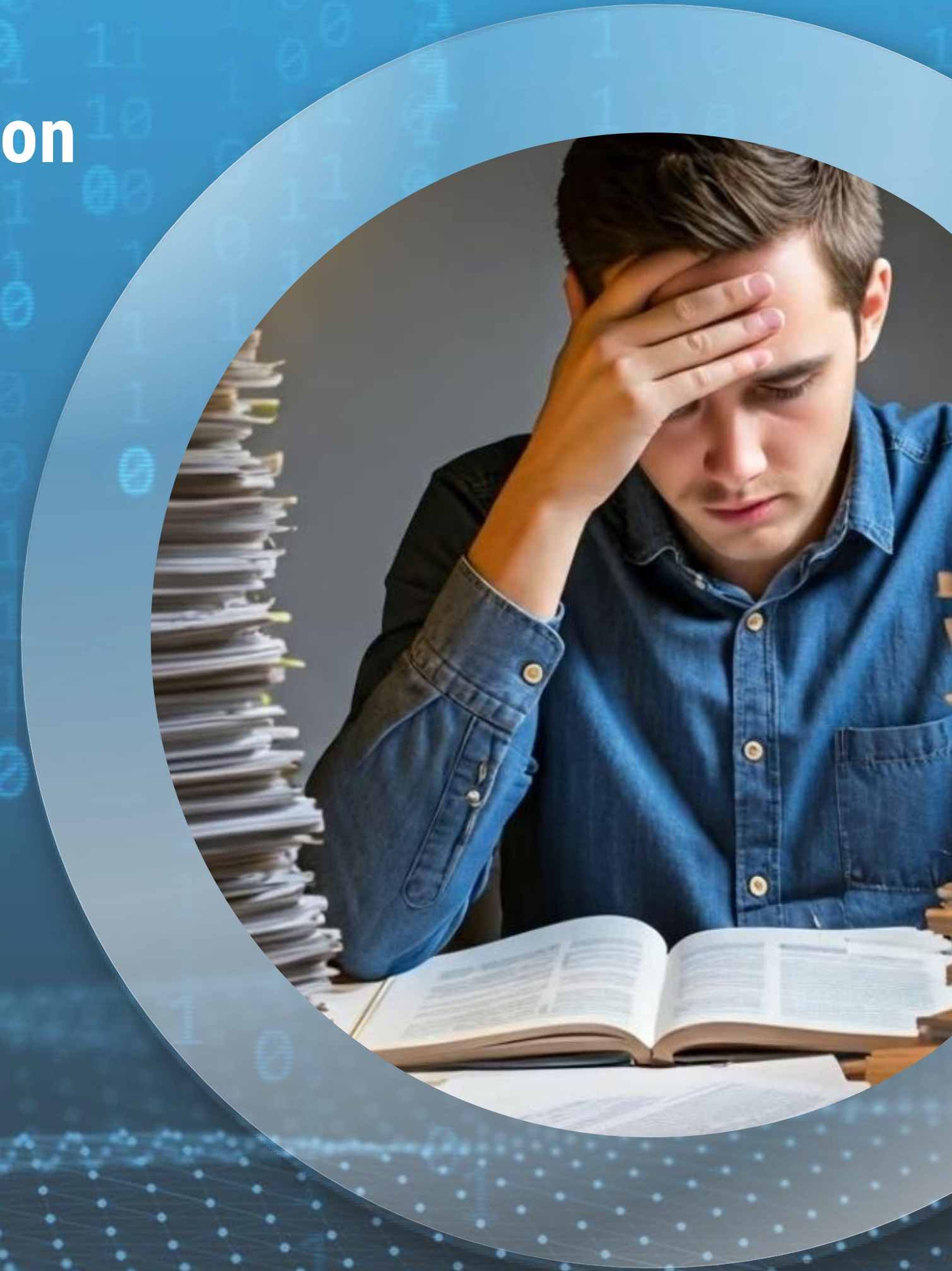
Lack of Standardization

Inconsistent practices across different institutions and countries.

3

Documentation Access

Difficulties in obtaining necessary documents, especially for refugees.



Digitalization: Innovative Solutions for Academic Recognition



Process Automation

Enhances operational efficiency by reducing response times and optimizing resources.



Improved Transparency

Digital platforms provide clear tracking of recognition processes.



Standardized Practices

Technology ensures consistent data and credential evaluation, unifying criteria on a global scale.

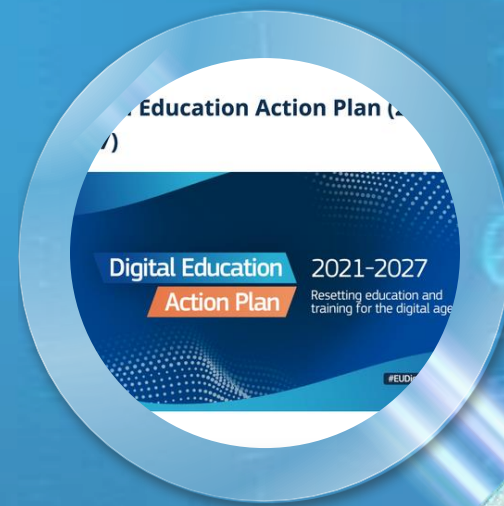


Interoperability

Digital systems allow for harmonious communication between platforms and organizations, promoting international cooperation.

Digital Transformation of Education: Regulatory Framework

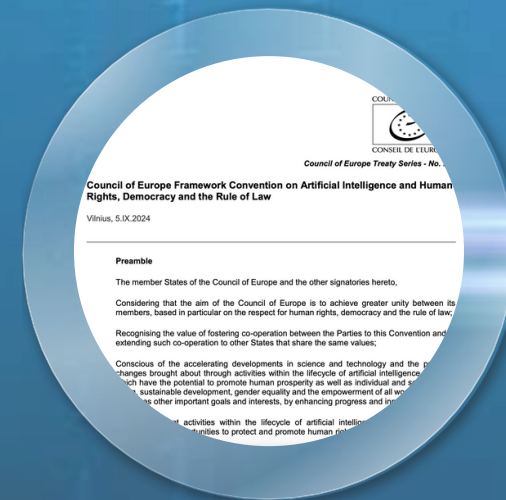
European Commission Digital Education Action Plan (2021-2027)



UNESCO Six pillars for the digital transformation of education



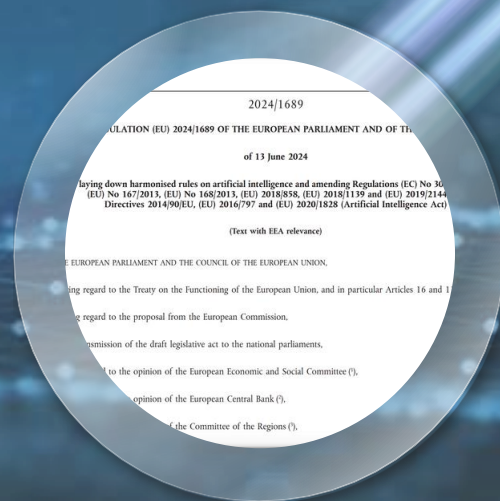
Council of Europe Framework Convention on Artificial Intelligence and Human Rights, Democracy and the Rule of Law



UN Global Digital Compact



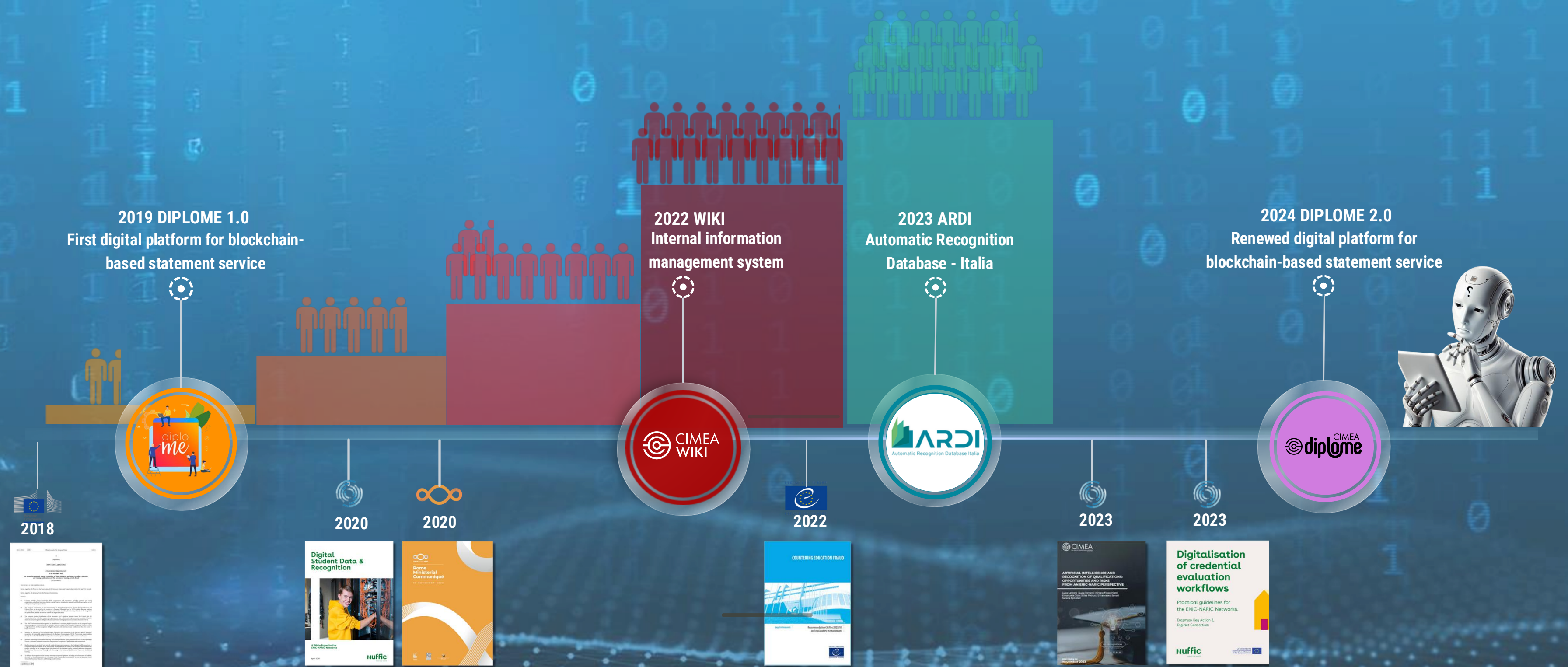
AI Act - European Union



UNESCO frameworks for AI in Education and Research



CIMEA Digital Transformation Pathway



While the literature on the digitalization of academic recognition is still limited, a strong community of practice has emerged. CIMEA has been a forerunner in this field and its digital transformation pathway stands as a successful example of this community in action.

Digital Methodology: Quality by Design

Holistic Approach

- **Comprehensive Workflow Redesign:** Reimagined the entire evaluation process as an interconnected system, ensuring alignment across all stages.
- **Sequential Implementation:** step by step progression- requirements gathering, platform design, and implementation.
- **Rigorous End-to-End Testing:** Thorough testing of the entire workflow to ensure a seamless user experience at every stage, guaranteeing accuracy and security, especially for sensitive data, prior to rollout.



Participatory Approach

- **Hands-On Analysis:** Leveraged expertise of senior evaluators across diverse regions.
- **Geographical Coverage:** Ensured insights from varied educational systems and credential peculiarities.



Service Design

- **User Research:** Delved into the needs, preferences, and challenges of key stakeholders.
- **Journey Mapping:** Visualized user interactions to pinpoint areas for enhancement and optimization.



Goals for CIMEA's Digital Transformation

Compliance with International Standards



User-centricity



One-Stop Shop



Data Privacy & Security



Inter-operability



Information architecture



Consistency



Efficiency



Staff Management



Delineating the objectives driving the digitalization of credential evaluation workflows is paramount. This entails defining specific goals that encompass both the center's overarching mission and the digital transformation agenda. By establishing these objectives, the center sets a clear direction for enhancing efficiency, accuracy, and accessibility within the evaluation process. These goals serve as the cornerstone for aligning technological initiatives with the center's strategic vision, ultimately ensuring the successful integration of digital solutions into its operations.

User-Centricity: Applicants

Evaluators



Applicants



One-stop shop

Request documents

Country of the Education System*
Please select here the country education system according to which your qualification was awarded.
Pakistan

Level of Education System*
Do you hold an upper secondary school or a higher education qualification?
Higher Education

Search

Required documents

In this section you can find a list of Required Documents in order to purchase a service. This list is based on the country education system according to which your qualification was awarded.

PAKISTAN

Diploma / Degree / Professional Certificate
Diploma must send back (in original language)
Please make sure to upload your [Diploma / Degree / Professional Certificate](#) with the label in it, available online on MEC website.
[Click here to see the label template](#)

Transcript / Academic Record
Official Transcript of Records / Statements of Marks must send back (in original language)

Translation
In case your education documentation is not attested by MEC with the label on it, please
Submit a request to MEC to attest your qualification to MEC. Official copies of your education documents (Diploma and transcript) in sealed envelopes by mail or courier service to Associazione CIMEA, Via S. Maria 10, 30138, Rome, Italy
Submit a request to MEC to attest your qualification to MEC. Official copies of your education documents (Diploma and transcript) directly to CIMEA in sealed envelopes by mail or courier service to Associazione CIMEA, Via S. Maria 10, 30138, Rome, Italy
Please note that there are certain requirements for the delivery of official documents. Sealed envelopes must be addressed to the MEC and must be accompanied by the official documents in sealed envelopes. Please refer to the MEC website for more information.
For official documents in sealed envelopes we mean an original or an attested copy with an original institutional seal and signature. Please bear in mind that such official documents should be sealed and accompanied by the necessary official documents. Please note that sealed envelopes, stamped letters, handwritten letters and not considered official documents.
For more information on the closing deadline with your name, an application of official seals back to you.
The official documents in sealed envelopes can be sent to CIMEA by mail or courier service or by the sending authority or by the applicant, but must be sealed and accompanied by the necessary official documents. Please refer to the MEC website for more information.

Statement download and share functions

Chat with Credential Evaluator

Chat with your student

Me

Bonjour, merci de nous avoir contacté. Afin de compléter l'évaluation de votre dossier, nous avons besoin d'une dernière information concernant vos études. Pouvez-vous expliquer pourquoi vous vous êtes présenté à l'examen du baccalauréat en tant que candidat libre? N'avez-vous pas terminé vos études secondaires? Bien à vous
03/10/2024

LARISSA NELLA MINKALI EDOUA

Bonjour à vous.

J'avais déposé mon dossier en retard dans l'établissement où je fréquentais, car j'avais un problème de santé. Alors le directeur est allé me le déposer à la Direction Des Examens et Concours en tant que candidate libre.

Merci beaucoup.
06/10/2024

Administrative Docs Retrieval

Receipts and Invoices

Here it is possible to view/download the e-Invoices for the services you have purchased

08/04/2024	ID-XfmyjsVLGktxqeeZ20240408074825	€ 150,00	
04/04/2024	ID-T0w46Qg0zu88wgnM20240404071642	€ 150,00	

Possibility of appealing



Institutions

User-Centricity: Higher Education Institutions

Evaluators



Institutions



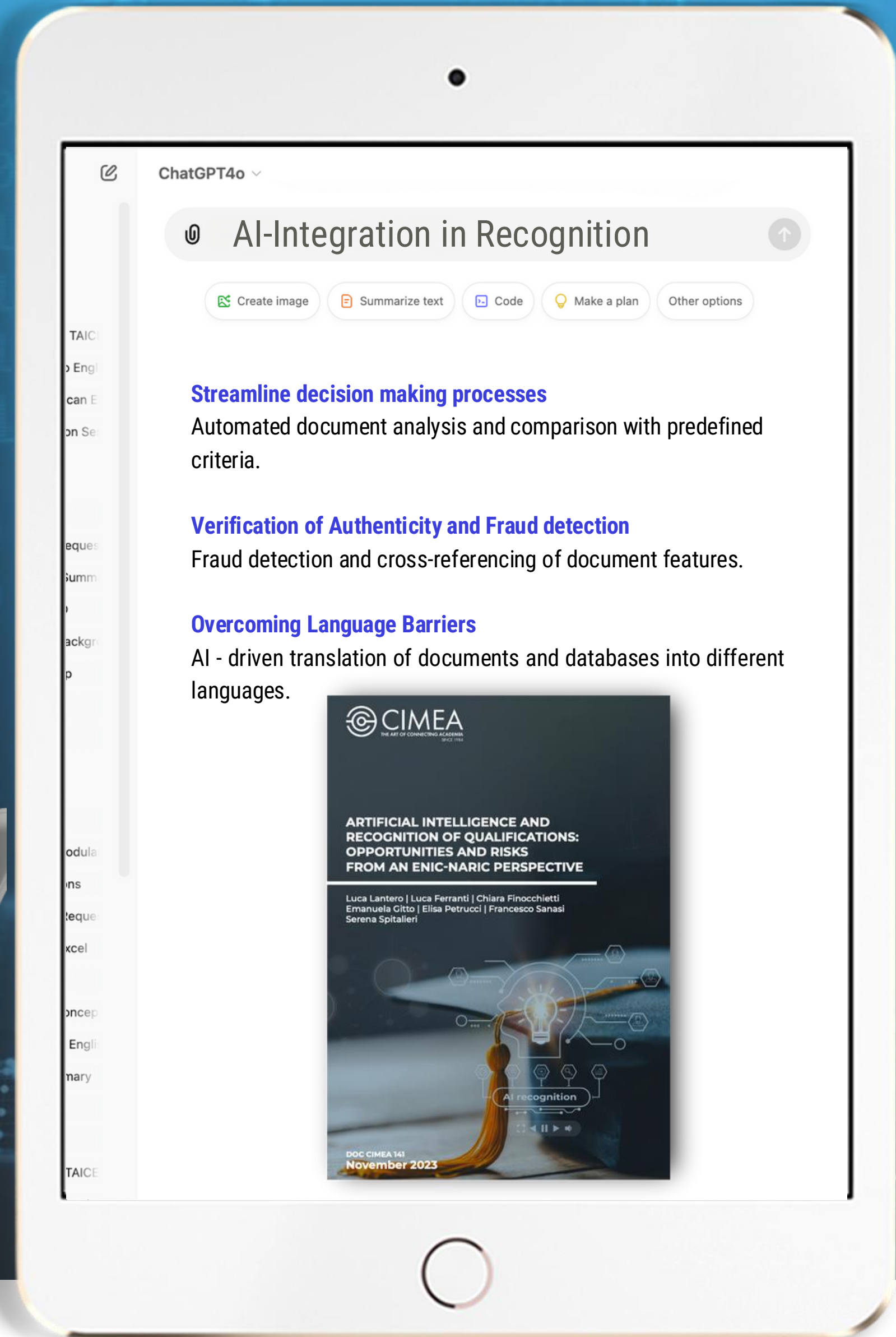
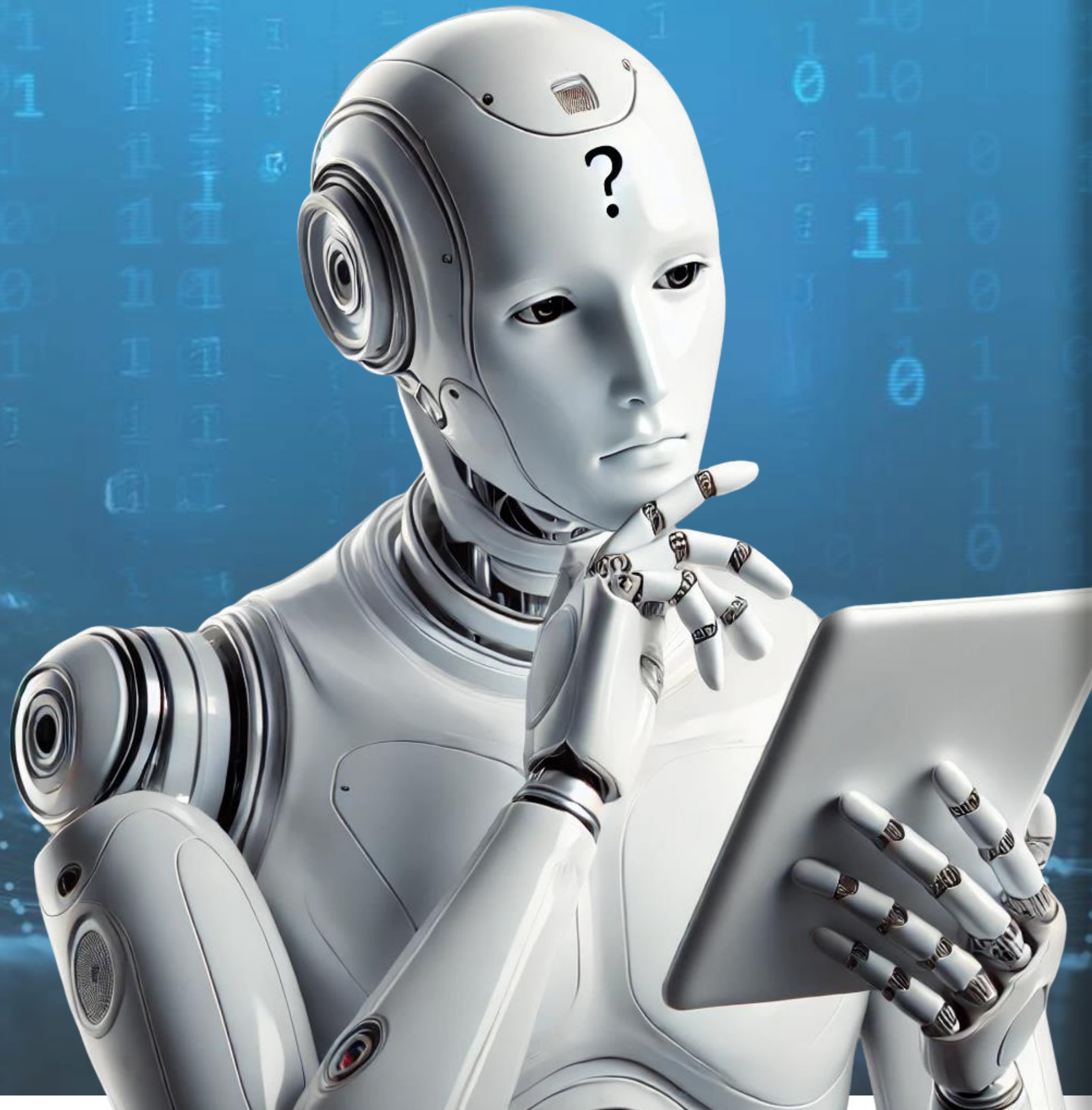
Real-Time
Application Status
Monitoring

Direct and Safe
Statement Access

Applicants



What's next?



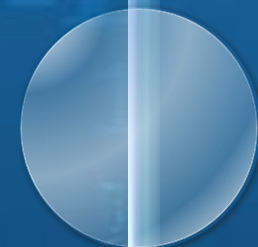
AI For Mobility and Qualification Recognition



Global Mobility Trends



Students in higher education worldwide doubled (2000–2019): **235 million**.



Internationally mobile students tripled: **6 million**.




Brain drain in Italy: Over **120,000** graduates emigrated (2012–2021).



Qualification recognition is now a critical issue for universities and governments

Important to retaining and attracting talent

Global Mobility Trends



The COVID-19 pandemic has **accelerated global mobility trends**, increasing demand for qualification recognition (studies and jobs abroad).

The European Digital Education Action Plan 2021-2027 has addressed this challenge by prioritizing **high-quality, inclusive, and accessible digital education**.

The Paris Communiqué and the European Council's Recommendation on Promoting Automatic Mutual Recognition of Higher Education urge Member States to adopt **transparent and interoperable digital solutions**.

AI as a key solution

AI-Driven Benefits:

- Automation: Streamlines recognition processes.
- Fair and equitable assessments through holistic evaluation (Lisbon Recognition Convention).
- Enhances global mobility by preventing delays and inconsistencies.

Why It Matters:

- Ensuring fair recognition supports the right to education.
- AI facilitates consistent cross-border assessments.

CHALLENGES

- Can AI processes and decisions be easily explained to users?
- How to apply AI while safeguarding personal and academic data.
- How can we ensure the data used to train AI models is representative and accurate? How ensure fairness in AI-decision making?
- Can we trust learning outcomes in the era of AI? And can AI support the assessment of learning outcomes?
- Can AI support academic mobility by contributing to remove some obstacles (e.g. linguistic barriers?)
- How can we ensure AI complements rather than replaces human judgment?



KEY CONSIDERATIONS

- Transparency and Accountability
- Holistic and human-centered design
- Human-in-the-loop
- Equity and accessibility
- Keeping human decision-making
- AI Literacy
- Collaborative approach and capacity building

Assessment of the comparability of a qualification

Step 1

Identification
of the elements
of the qualification

Step 2

Checking
for substantial differences

Step 3

Establishing
and expressing
the comparability with the
corresponding qualification
in the receiving education system

Verification of authenticity and fraud detection

Direct / Indirect support

Automated Verification
Databases

Identification of
False Diplomas

Elements and patterns
checked by AI (graphic
elements, organization
of information,
among others)

Impact on a credential evaluator's daily work

The promise of AI is to automatise
the more routine work.
Address challenges related to:

A surge in recognition request

Improve accuracy
by reducing
human errors

Enable evaluators
to focus on more complex and
value-added activities



Methodology for implementing AI in Qualification Recognition

1. Diagnosis and assessment of the current status of the processes within the organization

- Meetings with the organization's credential evaluators
- Identification of processes, tasks, subtasks, data and associated documents
- Identification and evaluation of the tools and technologies already used within the organization
- Creation of flowcharts representing the organization processes before and after incorporating digital and AI solutions

2. Research on existing AI solutions

- Research and analysis of experiences based on the use of data and AI in qualification recognition
- Use case analysis, interviews, literature review
- Comparison with other similar institutions that have implemented AI solutions to identify best practices.

3. Identification of opportunities and specific proposals

- Identification of concrete opportunities for AI implementation
- Identification of quantitative and qualitative improvements
- Evaluating AI solutions and its impact of solutions in terms of costs and benefits (efficiency)
- Technical and operational insights
- Recommendations regarding the formation of work teams for the implementation of AI

Considerations for sustainable AI development and implementation

- 1. Team Building**
- 2. Ideation and planning**
- 3. Data processing**
- 4. Model Exploration**
- 5. Refinement of the models**
- 6. Testing and evaluation**
- 7. Continuous updates and feedback**



Opportunities identified to incorporate artificial intelligence in qualification recognition



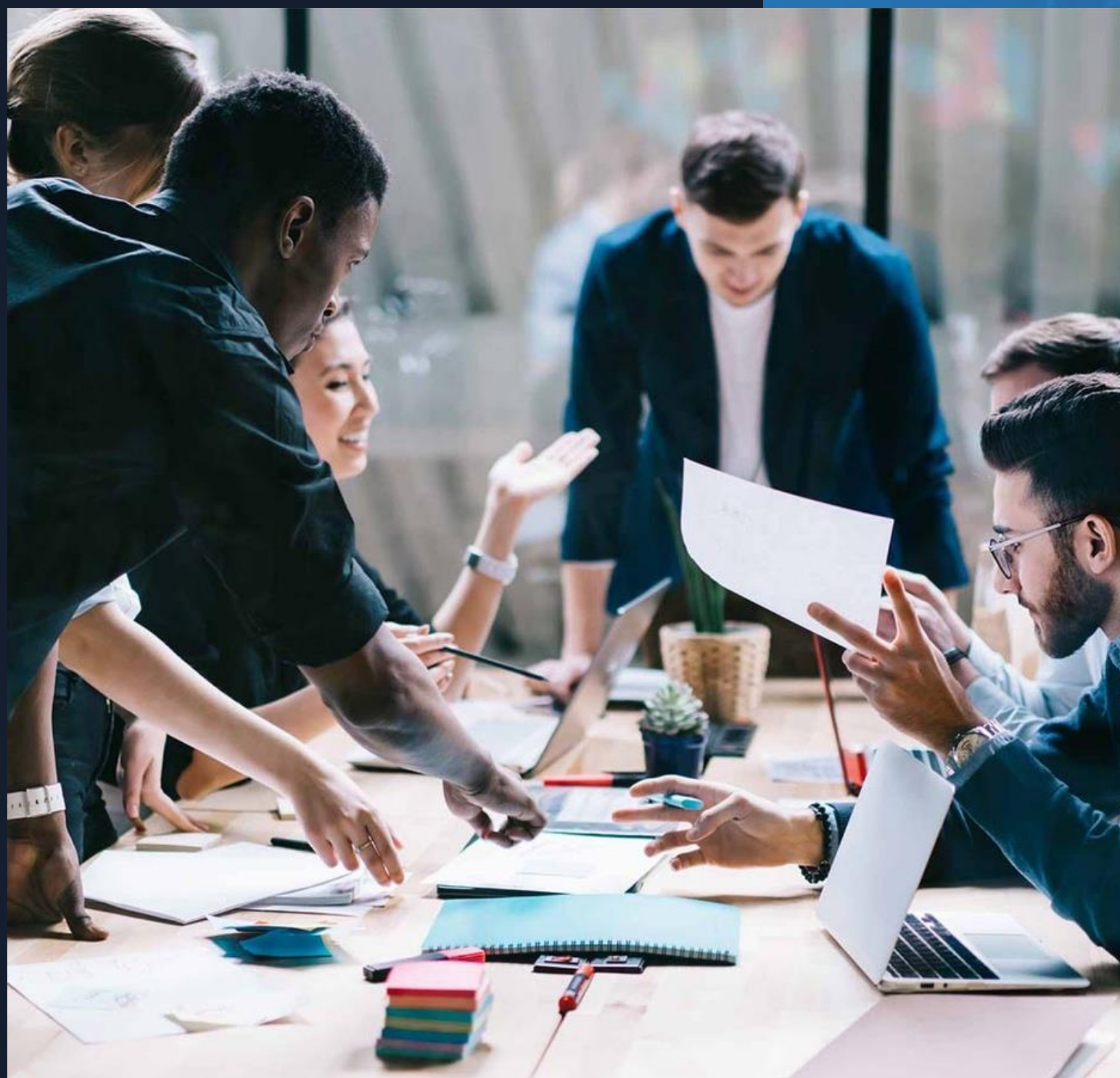
Opportunities in relation to the assessment of the comparability of a qualification and the verification of authenticity and fraud



Opportunities in relation to the customer services module



Opportunities in relation to the prediction on the behavior of the requests workflow



Opportunity 1

Completeness of the request submitted

Intelligent detection of the information provided by the user is sufficient for moving forward the request and to confirm that each document submitted matches the expected type:

- Passport
- Academic Diploma
- Transcript



Opportunity 2 Assignment

Assistance in assigning cases to credential evaluators.

Smart rule-based suggestions.

Assignment display board.

Automatic assignment and notification.



Opportunity 3

Verification of authenticity

- AI to detect anomalies in documents that may indicate fraudulent or different formats on titles
- Definition of criteria by the organization (checklist)
- Automatic detection alert.
- Automatic generation of consistency reports.



Opportunity 4 Customer Service

Conversational agent for:

- Initial Inquiry: clear guidance on required documents and steps.
- Document Submission: submit and verify the necessary documents.
- Status Updates on the application
- Issue resolution or in
- Final notification on the resolution of the case



Opportunity 5

Prediction on request procedures

- Based on information on previous procedures
- Automating the prediction the demand behavior based on patterns and trends
- Characterization of demand behavior





Thanks for your attention