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Intellectual Output 4 - Knowledge Repository

David Portugal,
Institute of Systems and Robotics,
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31/05/2023

Intellectual Output 4 (IO4)

Co-funded by the
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Knowledge Repository

- Contains: Training Webinars, Guides of Best Practices, Integration Guidelines, Training Materials and Forum Discussions on how to Adopt and Deploy Continuous Student Identity Management Solutions in HEIs.

- *Lead:* University of Patras
- *Participating Partners:*
  - *Institute of Systems and Robotics (ISR-UC)*
  - Cognitive UX GmbH
  - University of Cyprus

Intellectual Output 4 (IO4)

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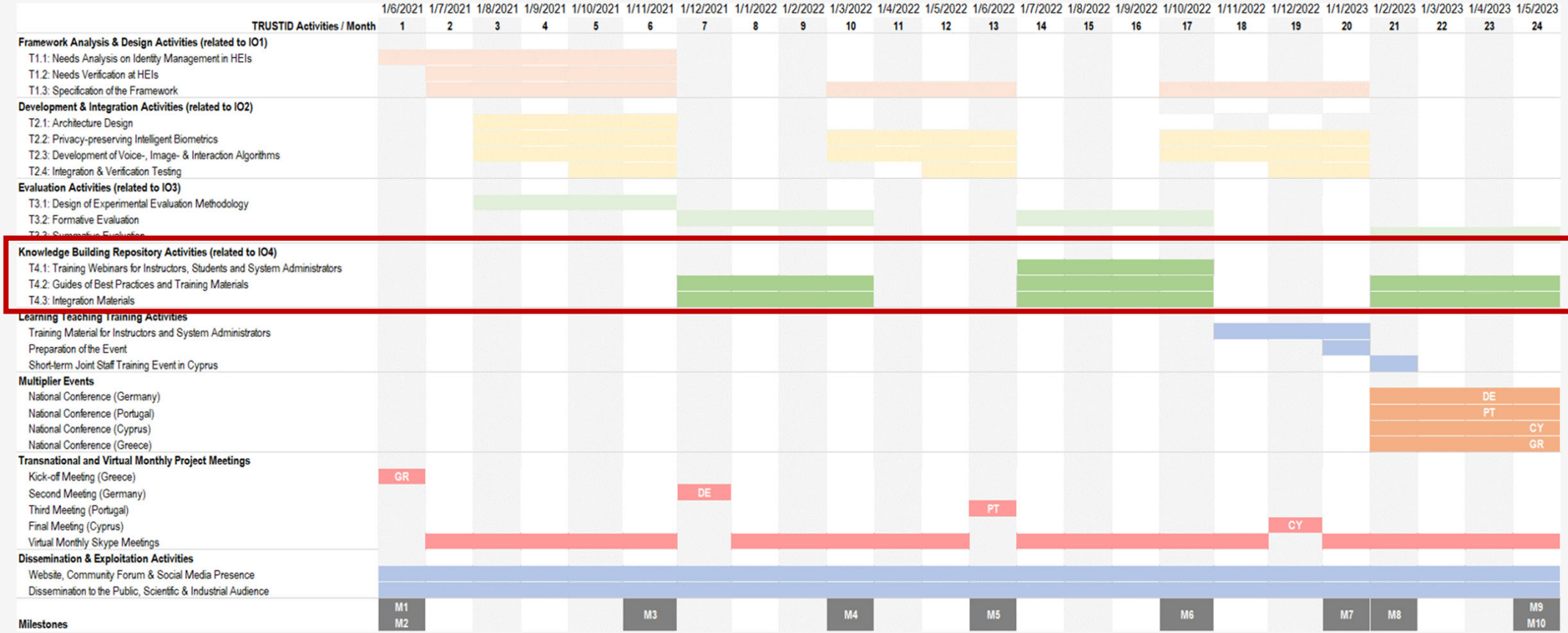

IO4 – Objectives and Activities

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- Series of tasks for producing a thorough knowledge repository to serve as training and learning material based on the outcomes of the project, and as a dissemination tool.
- Conduct webinars for the training of system administrators and instructors, which will serve as a training, evaluation and dissemination tool of the project
- Design of guides describing best practices on how HEIs may adopt continuous student identification methods and techniques in online learning environments.
- Design of system integration guidelines on how system administrators of HEIs may utilize the developed API of TRUSTID to integrate the solution into their existing learning management environments and systems.

IO4 - Tasks

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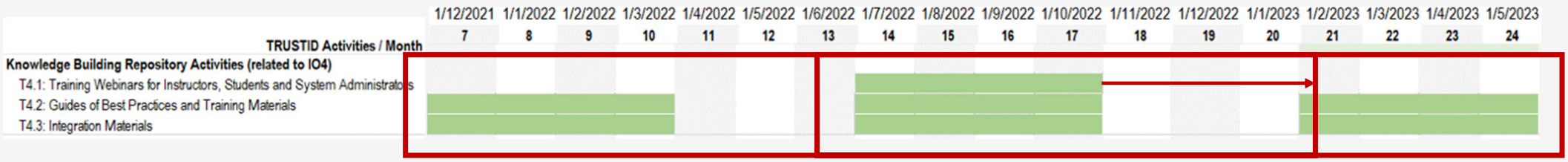
- T4.1: Training Webinars ← July 2022 – Feb 2023
  - *Lead: Institute of Systems and Robotics (ISR-UC)*
  - *Participating:* University of Patras, University of Cyprus, Cognitive UX GmbH
- T4.2: Best Practice Guides ← Until EoP (May 2023)
  - *Lead: Institute of Systems and Robotics (ISR-UC)*
  - *Participating:* University of Patras, University of Cyprus, Cognitive UX GmbH
- T4.3: System Integration Guidelines (through an Application Programming Interface)
  - *Lead:* Cognitive UX GmbH
  - *Participating:* University of Patras, University of Cyprus, *Institute of Systems and Robotics (ISR-UC)*



T4.1: Training Webinars

Co-funded by the
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- The Training Webinars consisted of focused sessions to demonstrate the TRUSTID technology from a **user** perspective (instructors) and from a **technical/integration** perspective (system administrators).

- Designed to inform HEIs stakeholders on **why**, **when** and **how** to adopt continuous student identification.

- Four webinars were conducted: one by each partner organization.

T4.1: Training Webinars -- Activities

Co-funded by the
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CUX: Mon, Dec-5 2022, *Beyond Passwords: Biometric Identification & Authentication Best Practices* [Taoufik Sousak]

T4.1: Training Webinars -- Activities

Co-funded by the
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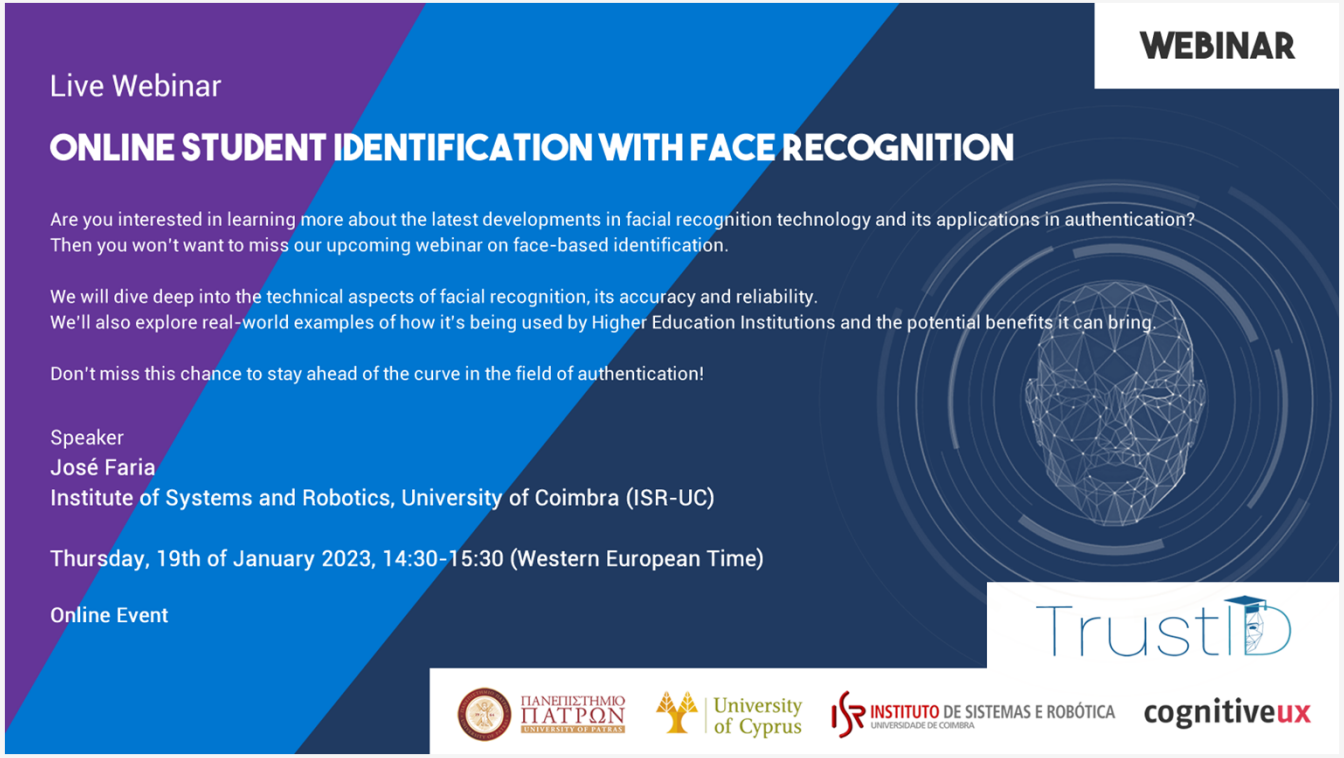

ISR-UC: Tue, Jan-19 2023, *Online Student Authentication with Face Recognition* [José Faria and Pedro Martins]

T4.1: Training Webinars -- Activities

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UPAT: Thu, Jan-19 2022, *Strong Authentication – Best Practices and Biometrics* [George Thomopoulos]

T4.1: Training Webinars -- Activities

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UCY: Fri, Feb-3 2023, *Towards Intelligent and Privacy-Preserving Biometrics for Student Identity Management in Higher Education* [Argyris Constantinides]

T4.1: Training Webinars

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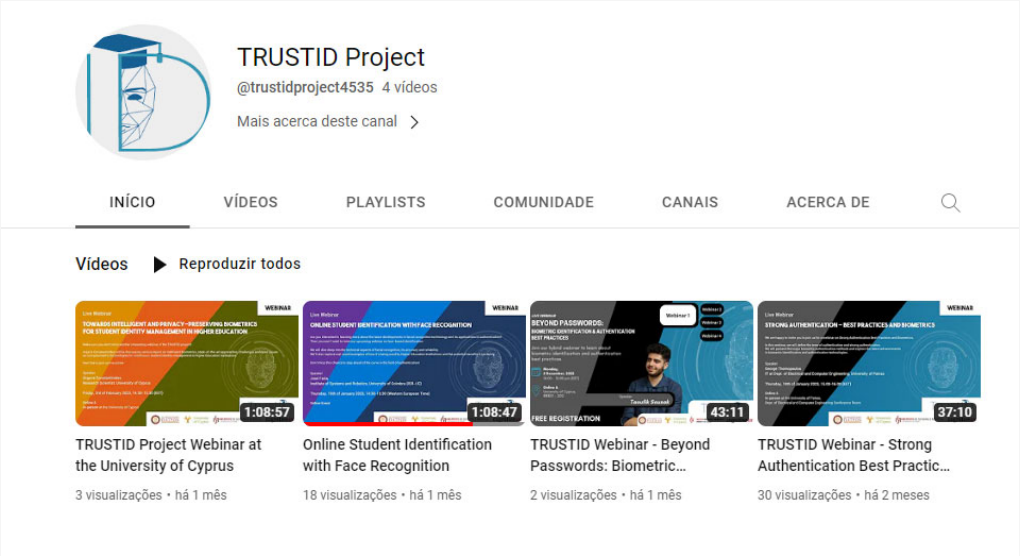
- Evaluation and piloting tool to improve the system design based on **feedback** received after the webinars.
- Dissemination tool through **live video** recorded sessions, which are **publicly available**.



T4.2: Best Practice Guides

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- Innovative and practical design guidelines, recommendations/policies to provide useful indications on how current practices in identity management and online learning systems can be improved.
- Guidelines will be made publicly available (*e.g.*, through publications and open repositories) to be used by interested researchers and practitioners as a stepping-stone for further exploitation.

- What are we producing?
  - *Format: Documents and presentations (e.g., pdfs, pptx)*
  - Practical design guidelines
  - Recommendations
  - Policies
  - Experimental results

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T4.2: Best Practice Guides – Stage 1

T4.2: Best Practice Guides – Actions Done in Stage 1

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Deployment of Knowledge Repository v1

- *TRUSTID Webpage with links for Wiki pages hosted on Slite.*
  Available at: https://trustid-project.eu/kr.php
  including Educational, Training and Course Material.

Deployment of the TRUSTID Community Forum v1

Based on WordPress. It was available at: http://forum.trustid-project.eu/

Barebones version with "Developers" and "General" Discussion Topics.

TRUSTID GitHub Open Source Code Repository

Available at: https://github.com/cognitiveux/trustid

GitHub

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T4.2: Best Practice Guides – Stage 2

T4.2: Best Practice Guides – Actions Done in Stage 2

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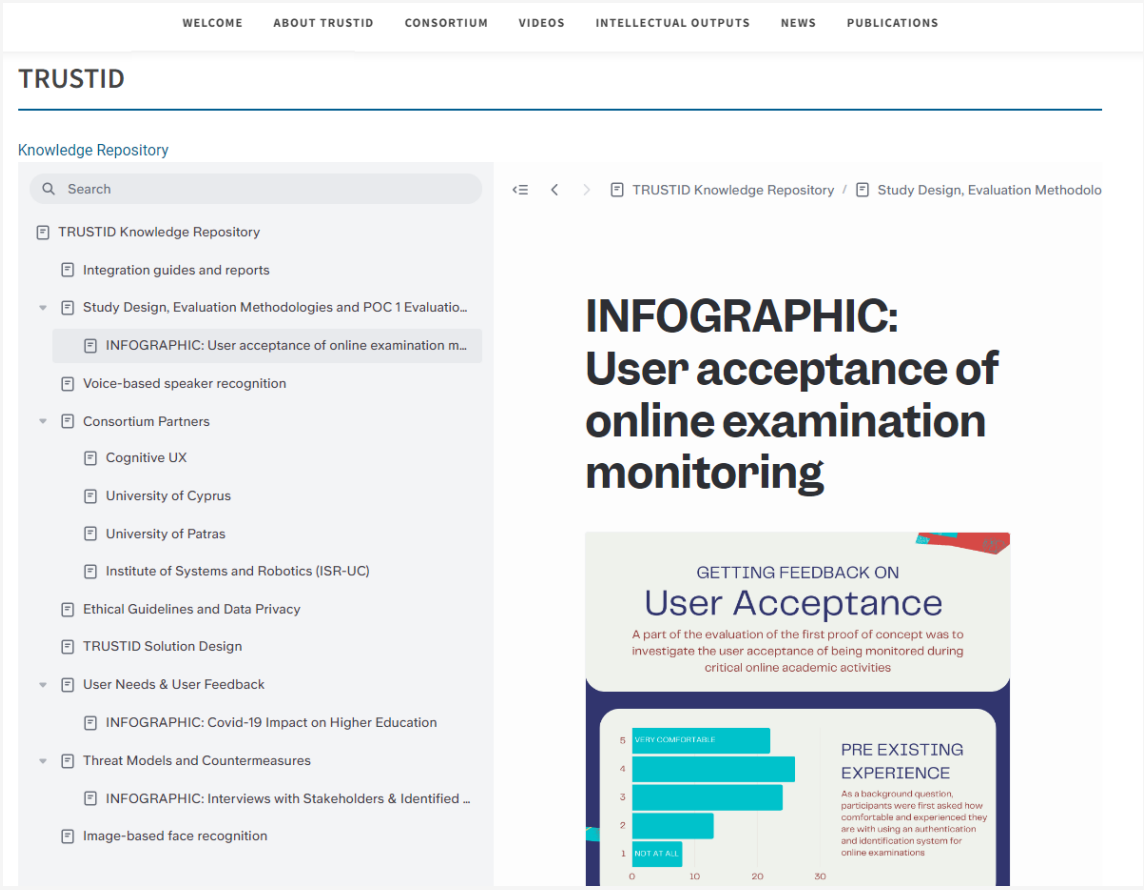
Deployment of Knowledge Repository v2

TRUSTID Webpage with new Wiki pages hosted on Slite

- *Integration guides and reports*
- *Study Design, Evaluation Methodologies and POC 1 Evaluation Results*
- *Voice-based speaker recognition*
- *Update of previous wiki pages (e.g. Image-based face recognition)*
- *INFOGRAPHIC: User acceptance of online examination monitoring*



T4.2: Best Practice Guides – Actions Done in Stage 2

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TRUSTID Project Brochures

What is TRUSTID

User Recruitment

T4.2: Best Practice Guides – Actions Done in Stage 2

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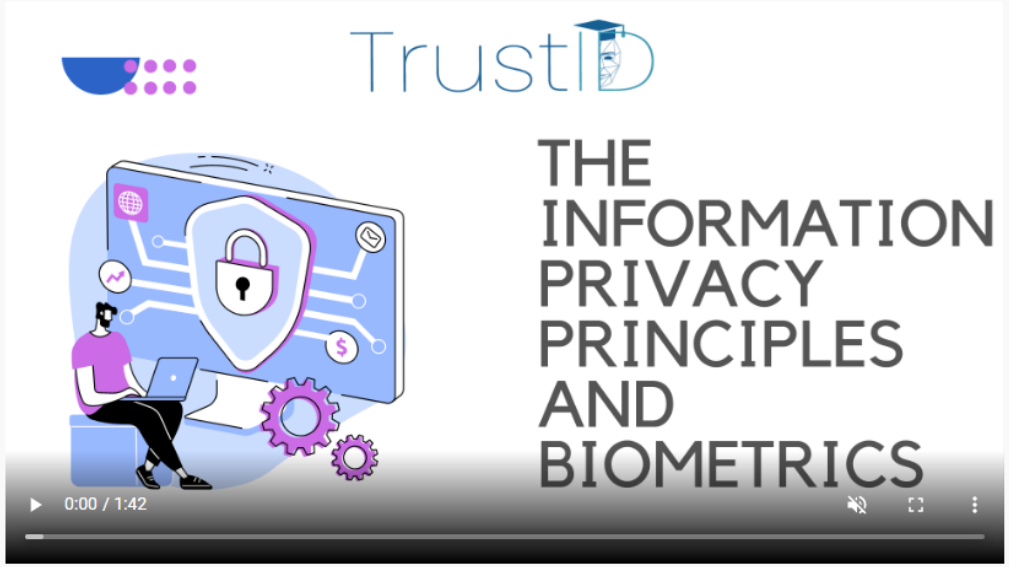
Best Practice Videos

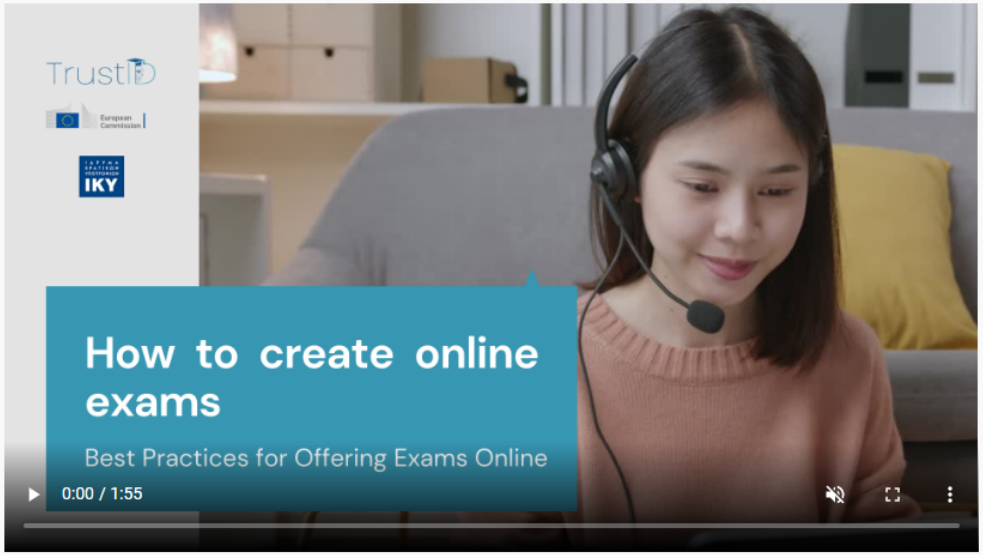
The Information Privacy Principles and Biometrics

Watch this best practices videos about privacy preservation when it comes to biometrics



Online Examination Best Practices

Best practices and extra tips when it comes to online evaluation activities.



T4.2: Best Practice Guides – Actions Done in Stage 2

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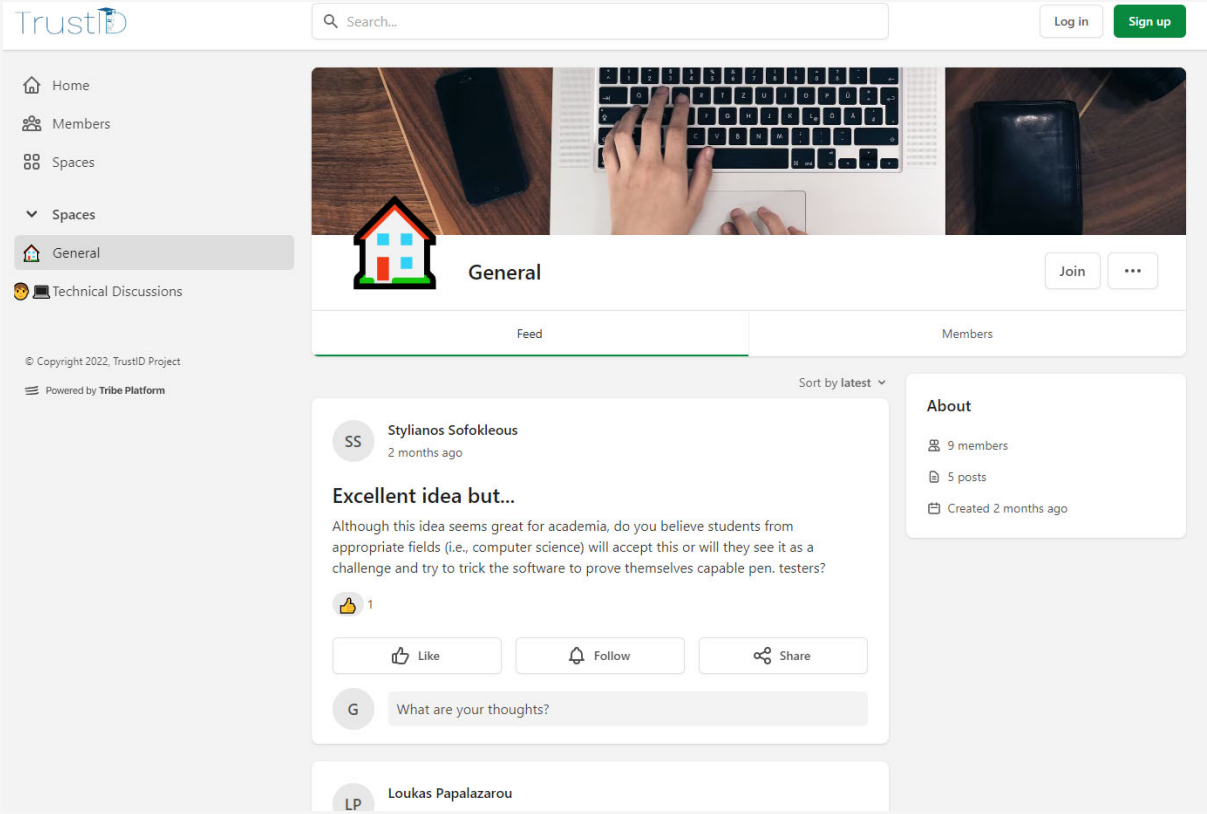
TRUSTID Community Forum v2

Embedded in the TRUSTID website

*Based on **tribe**, a customizable community platform for businesses*



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T4.2: Best Practice Guides – Stage 3

T4.2: Best Practice Guides – Actions Done in Stage 3

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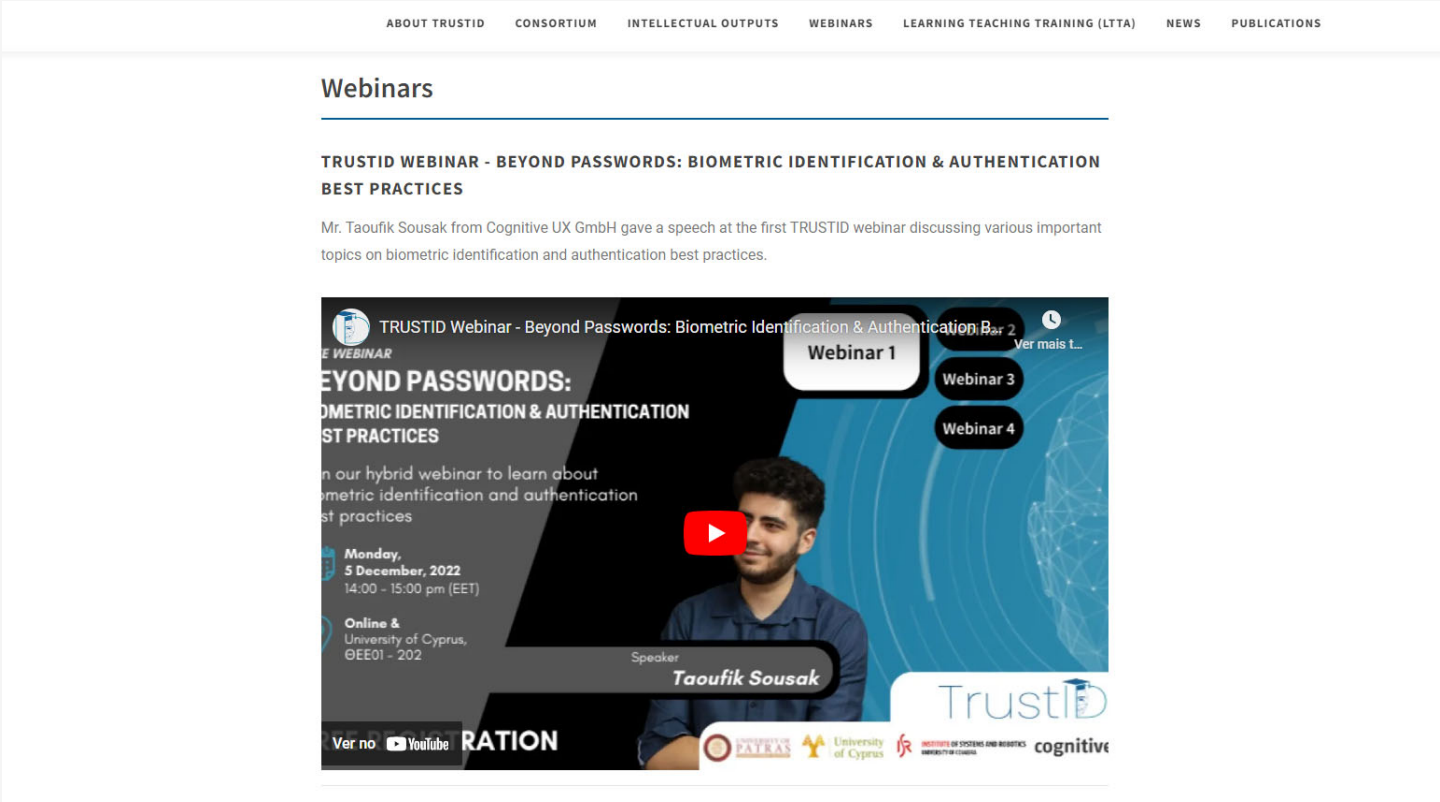
Webinars Webpage

Embedded in the TRUSTID website



T4.2: Best Practice Guides – Actions Done in Stage 3

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Learning Teaching Training Activities (LTTA) Webpage

Embedded in the TRUSTID website

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TRUSTID / Intellect

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T4.2: Best Practice Guides – – Actions Done in Stage 3

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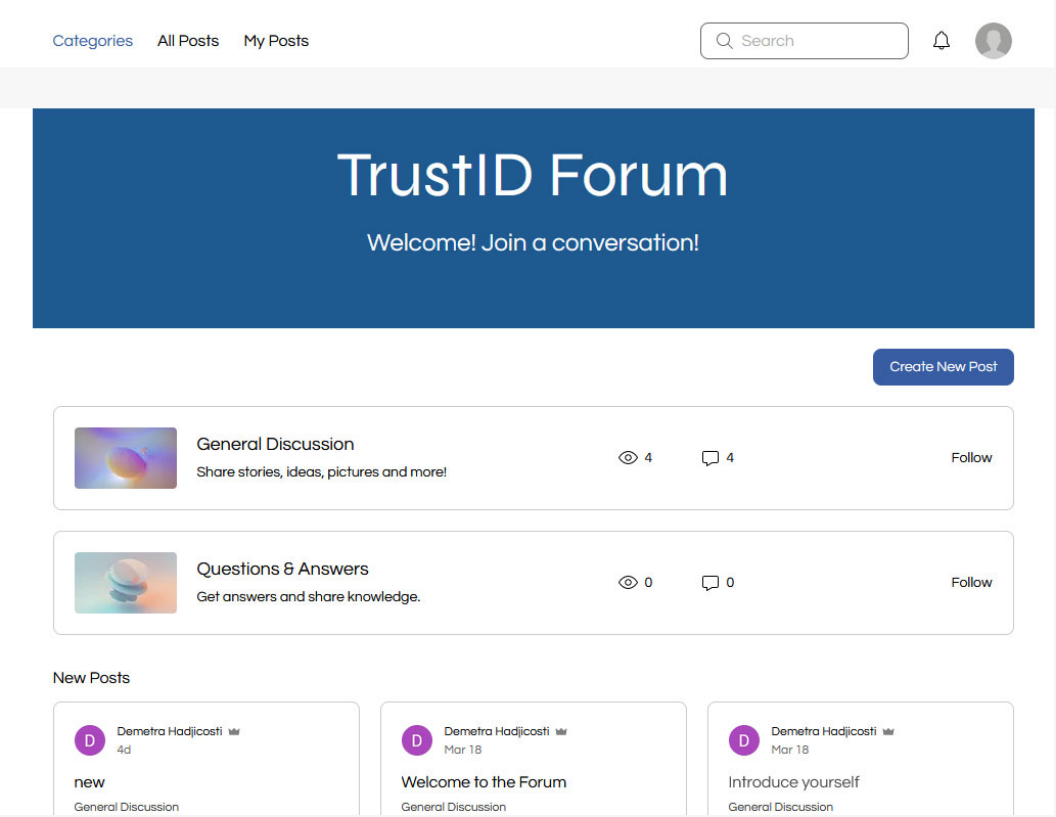
TRUSTID Community Forum v3

Embedded in the TRUSTID website: https://trustid-project.eu/community.php

*Based on **Wix**, a cloud-based website development platform*



T4.2: Best Practice Guides – Ongoing Actions

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- Update wiki pages reporting new results (e.g., interaction-based recognition, PoC 2 outcomes/validation, android wallet app, recent papers)
- Additional Best Practice Videos and eventually Infographics
- PoC 3 Final System information (update GitHub – PoC3 documentation, system description, integration guidelines, experimental results, etc.)
- TRUSTID Closure Documentation, Reports, Project Evaluation

T4.3: System Integration Guidelines (through an API)

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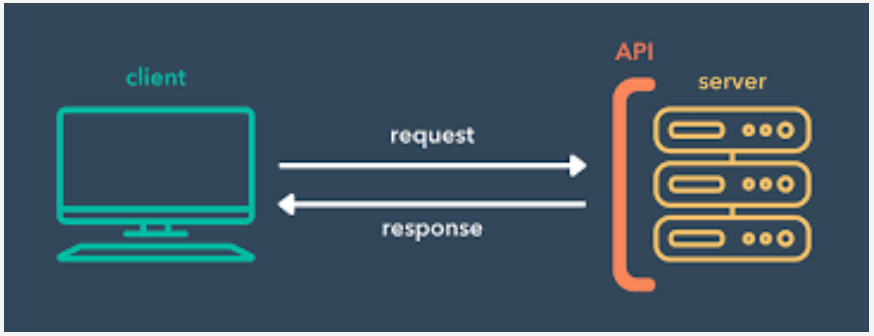
- Design system integration guidelines based on the developed Application Programming Interfaces developed as part of IO2 for exposing the intelligent continuous student identification mechanisms and user models to third-party software
- The API allows developers to subscribe and get an API key that will be used to authorize HTTPS requests for using the developed algorithms and user models in their applications
- Allows system administrators to easily integrate and customize TRUSTID to their needs and requirements



T4.3: System Integration Guidelines

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- **Target group:** System administrators
- What was produced
  - Integration guidelines allow admins to integrate and customize TRUSTID
    - *Format: Documents (e.g., pdfs)*
    - Guide on how to install TRUSTID Windows and MacOS *(on final system release)*
    - Guide on how to train the models for the face recognition mechanisms *(on final system release)*
    - Guide on to integrate TRUSTID in existing LMS systems *(on final system release)*
  - Document of Web API (continuously being updated along development)
    - *Format: Online documentation and demonstrator*
    - Interactive demonstrator on how to call and use the Web API of TRUSTID
    - Online documentation with information about the end points of the TRUSTID system

T4.3: System Integration Guidelines

Co-funded by the
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- Create system integration guidelines enabling system administrators to easily integrate and customize TRUSTID to their needs and requirements

- Infrastructure for Web-based Application Programming Interfaces (API) has been implemented
  - Interactive demonstrator on how to call and use the Web API of TRUSTID
  - Online documentation with information about the end points of the TRUSTID system

TRUSTID Backend – Web API

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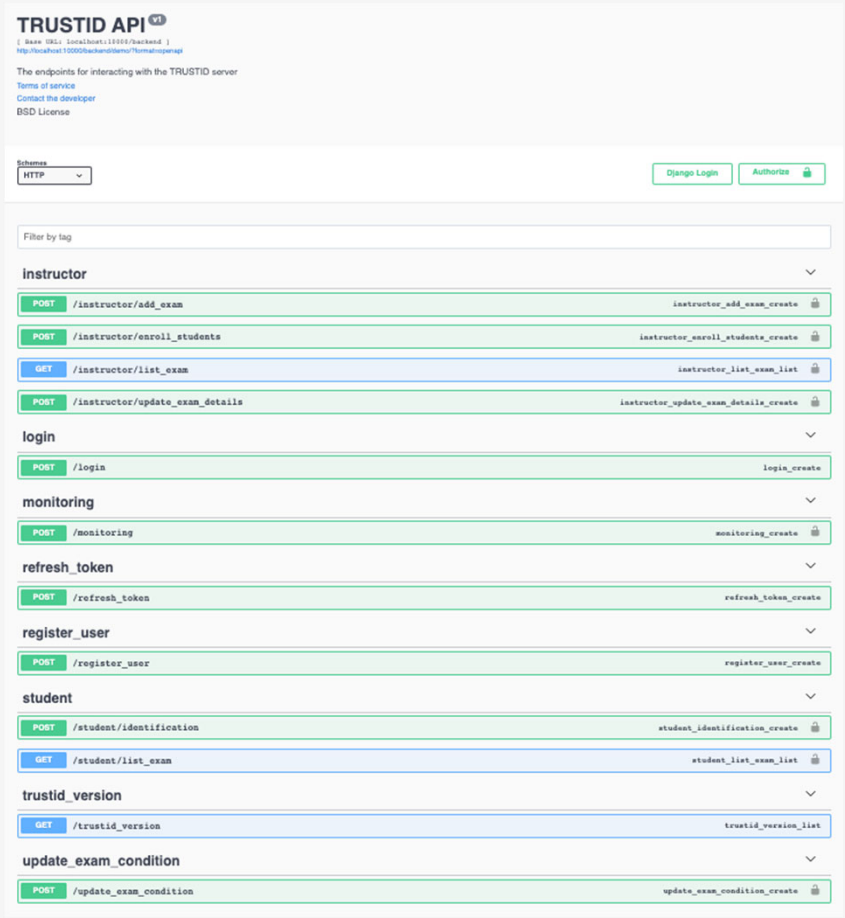

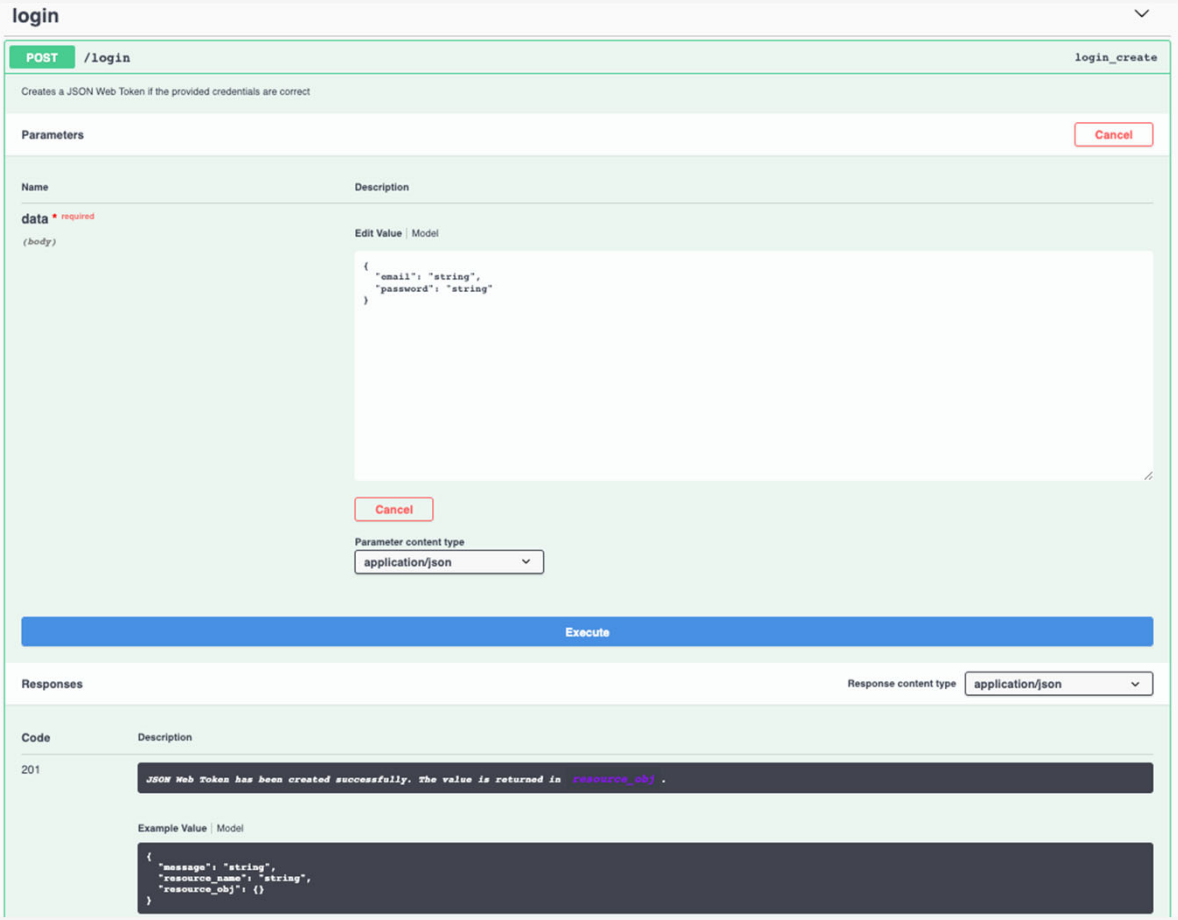

Web API – Documentation

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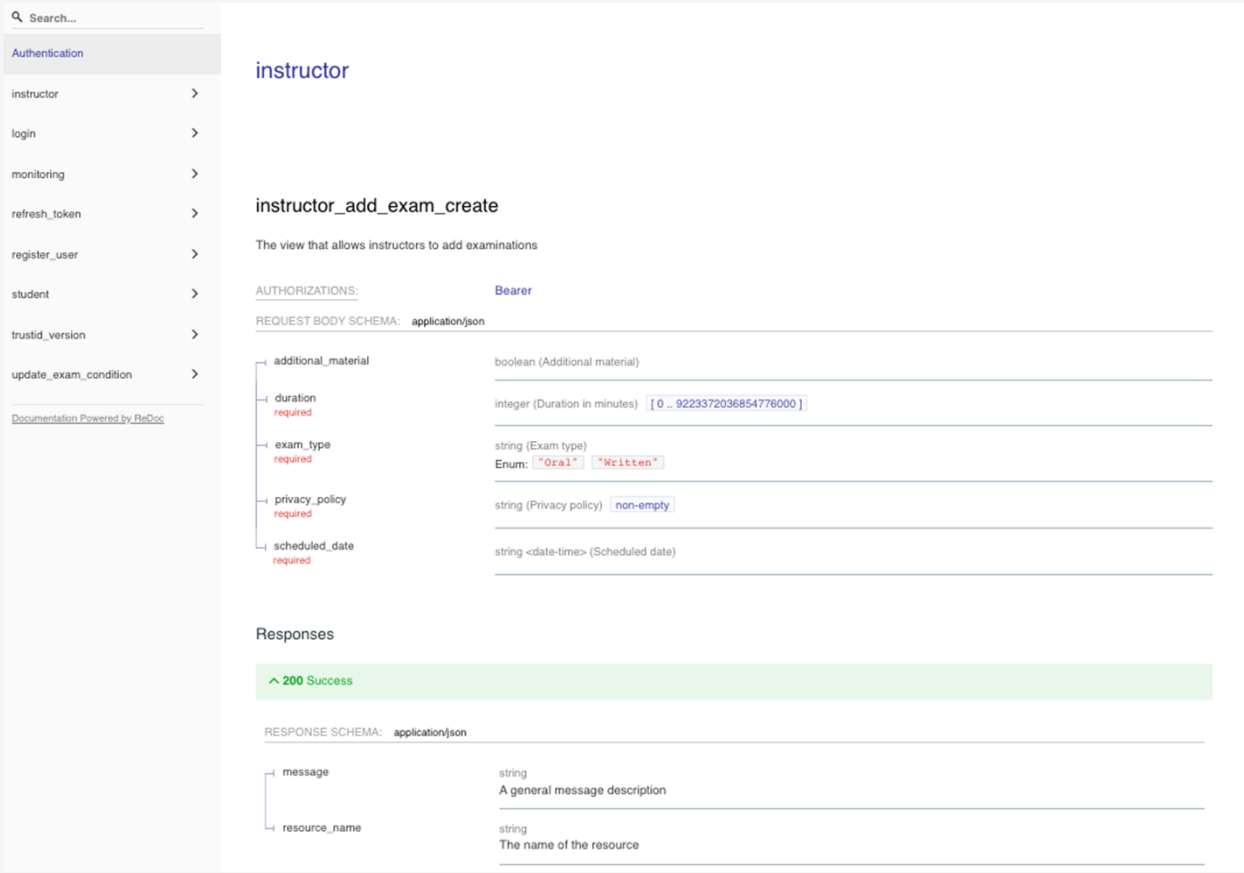

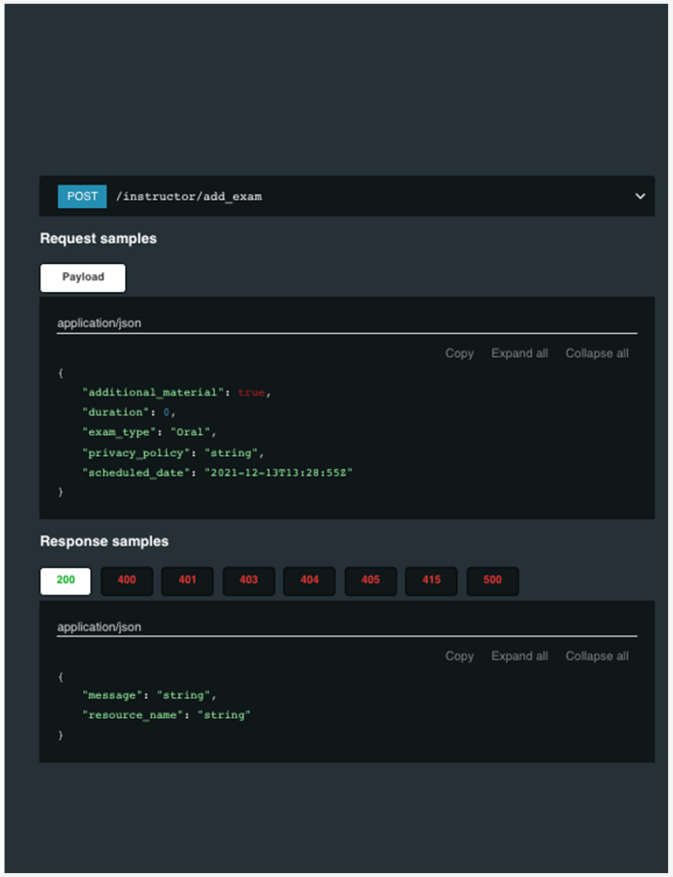

Intellectual Output 4 - Tasks and Achievements

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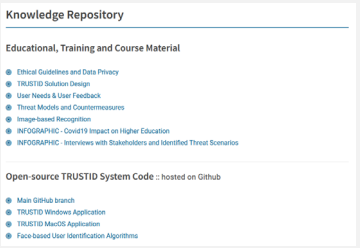
IO4 - Knowledge Repository containing Training Webinars, Guides of Best Practices, Integration Guidelines, Training Materials and Forum Discussions on how to Adopt and Deploy Continuous Student Identity Management Solutions in HEIs

Output: Internet, Broadcast, Event, Publications, Video

- Task 4.1: Training Webinars
- Task 4.2: Best Practice Guides
- Task 4.3: System Integration Guidelines (through an API)

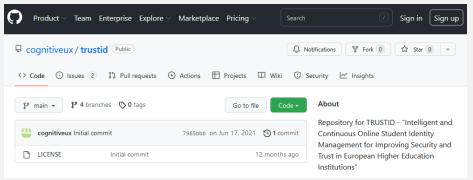
Achievements and Outputs

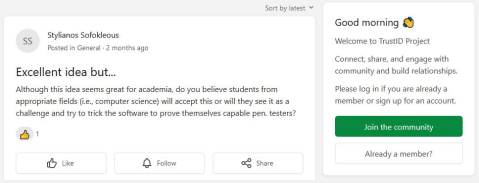
Deployment of Final Knowledge Repository
https://trustid-project.eu/kr.php



Deployment of Final TRUSTID Community Forum
https://trustid-project.eu/community.php

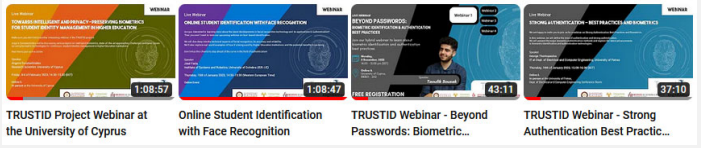
TRUSTID GitHub Open-source Code Repository
Available at: https://github.com/cognitiveux/trustid





Webinar
TRUSTID Webinar Events

- UPAT Event
- CUX Event
- ISR-UC Event
- UCY Event



Useful Links

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- Project's Website: https://trustid-project.eu

- Software source-code: https://github.com/cognitiveux/trustid

- LinkedIn: https://www.linkedin.com/company/trustidproject
- Facebook: https://www.facebook.com/trustidproject
- Twitter: https://twitter.com/trustidproject

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Thank you!

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