GLOBAL MOOC AND ONLINE EDUCATION ALLIANCE

Global MOOC and Online Education Conference 2023
Milano, 15 December 2023

Students' Digital Twins for open exploration of AI features

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GLOBAL MOOC AND ONLINE EDUCATION ALLIANCE

Global MOOC and Online Education Conference
Milano, 15 Dec

Technical University in Italy
Covers all areas of Engineering, Architecture, Design

38k students, 1.2k teachers
54 degrees at the BS, MS, PhD level

Politecnico di Torino

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Context and Goal

- ✓ Exponential Growth of A.I. capabilities
- ✓ Teaching applications are appearing everywhere
- ✓ Educational institutions are struggling to identify policies and best practices
- ✓ **Technology evolves faster than regulation**

- ✓ Enable quick and safe **exploration** of new features
- ✓ Involve **skills** and knowledge of **researchers**, **students**, and IT staff
- ✓ Be **open** and **encourage** innovative **ideas**
- ✓ Education = Teaching, Learning, Administration, Research, Students activities

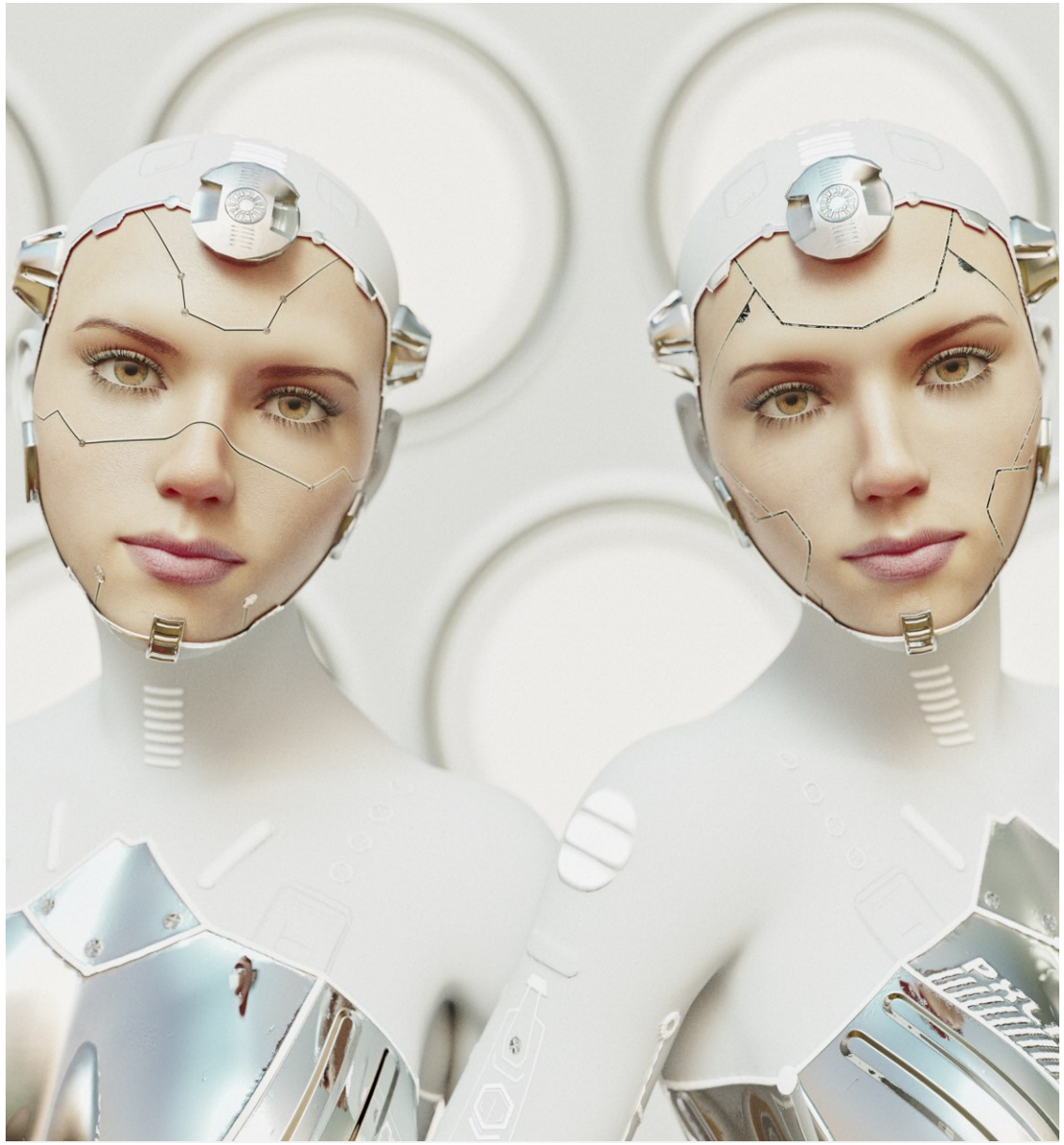
Main Ingredients

Develop a "**Digital Twin**" of a **student**, with all information about their career and status.

Access authorized by student credentials.

Allow **open access** to public information (courses, regulations, calls, FAQs, statistics, …)

Publish Open Source **hackable** reference **implementations**



Open collaboration framework
"AI Playground"

University provides

- Students Digital Twin
- Open access Info & data
- Open source API & code

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Enabling Ecosystem

- AI training and tools
- Data centers
- Researchers
- Students
- Ph.D.
- IT Staff
- Events

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Exploring applications

- Predict my career
- Create accessible learning content
- Propose learning paths
- Lecture summarization
- Generate FAQs from customer service chats
- Suggest courses of interest
- Find students interested in team activity
- Conversational access to student guide
- Prepare exams, help with grading
- Conversational access to course contents
- Help international students

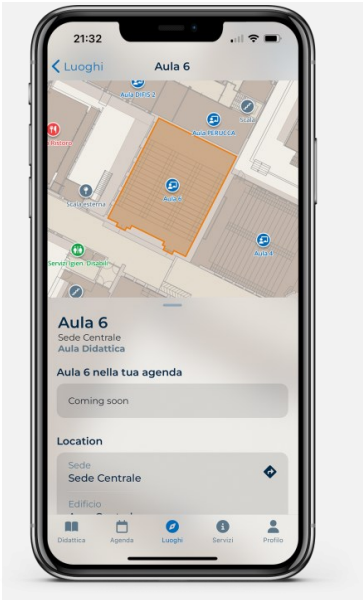
First steps

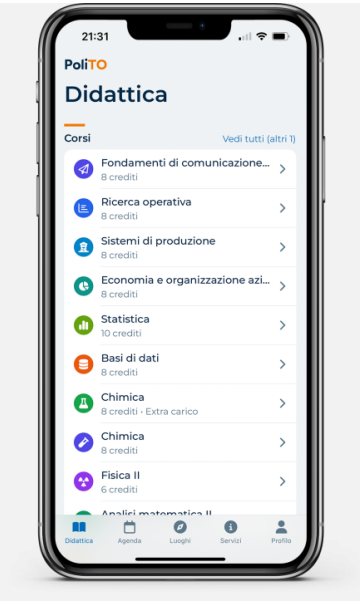
- ✓ PoliTO Students: Open Source mobile App
- ✓ New Student's Portal
- ✓ Involvement of students and PhDs

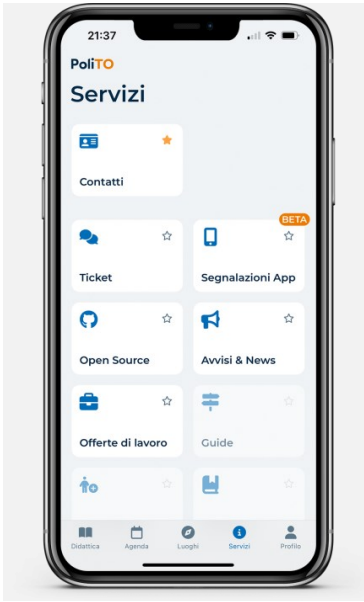
Open source API & code

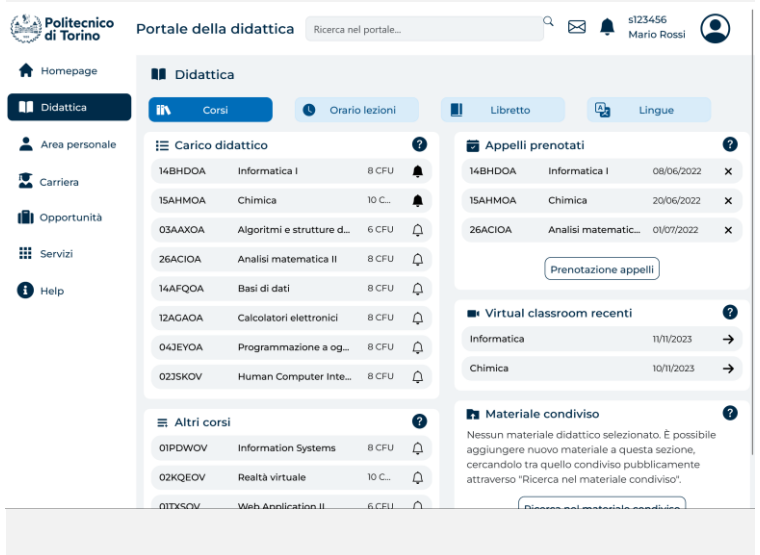
- ✓ Managed by
  - ✓ Teaching Lab
  - ✓ IT Innovation Group
  - ✓ Computer Science Department

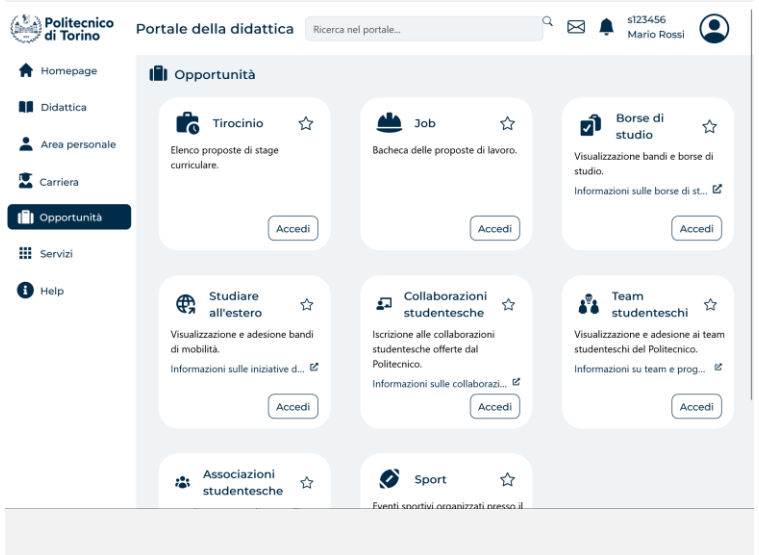
Open access Info & data











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Looking forward to new AI-based applications on top of university-provided data and services

Digital Twin

Open access

Open source

AI playground

Thank you

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