
Immersive Language Learning Experience with CAMILE

**[Culturally-and-Emotionally Aware Machine-Learning-based Intelligent Language-Acquisition with
Experiential-Learning (CAMILE)]**

IALLT ANNUAL CONFERENCE
New Orleans, May 2023
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Why CAMILE?

Because it addresses the need for effective language acquisition, engaging instruction, and cultural education in an increasingly digital and interconnected world. It aims to provide learners with a more immersive and meaningful language learning experience while offering educators a versatile tool for online instruction

Indeed CAMILE offers:

1. Natural and holistic language acquisition
2. Teaching literature and cinema
3. Engaging and progressive learning
4. Online instruction demand
5. Authentic assignments and real-life situations

How is it innovative?

CAMILE is an application that:

1. Provides full immersion experience
2. Gamification
3. Offers adaptive and personalized learning
4. Provides auto-generation of contextual assignments
5. Expands the application of Digital Humanities to language teaching.
6. Offers Learning based on emotions
7. It is easily adaptable to multiple languages.

CAMILE

Sample activities

For these activities students are asked to identify the emotion of the person in the picture and match the emoji that best represent it. It could be used after the students have learnt greetings and the questions “Come va?” or “Come ti senti?” It is, indeed, a great warm up activity and get students to talk and engage.

NOTE: This is an elementary activity and only the first step towards what CAMILE will be able to do when fully developed.

We plan on developing more intricate activities for upper level classes.

Examples of future development of this activity based on emotion are:



Students could:

1. Find at least 2 synonyms for each emotion and create a 'The emotions clock' that represents the new words.
2. Think about each emotion and share with the class the situation in which they are more likely to feel them; explain why.
3. Choose one emotion and create a video-blog to talk about the last time they felt that emotion. Student would have to describe the situation (Where were you ? With whom? What happened? Etc. ...) (Use the past tenses)

Open Source Textbook

Where do we go for ideas, if we need inspiration for CAMILE?

I have been working on an open source textbook for Italian , so we have many activities that can be adapted to CAMILE.

[Open Source Book Activities](#)

Challenges of the building the infrastructure

Building the ML Pipeline

We need to validate new emotional categories. The ML pipelines needs to create a learning loop that incorporates the student and their feedback to validate new emotional categories.

Next generation ML Pipeline Integrating Large Language Models

Cross language machine learning models can create new categories of emotion on the fly. How do we integrate that into our assignments and prevent hallucinations and misinformation.

Similar to manual but we need to do the human in the loop training to create the feedback properly.

Prototyping with GRADIO.io

Deploying into the infrastructure with next.js