

AR Media



FUTUREWEB
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What is Augmented Reality?



AR consists of merging images from the real environment with virtual layers of information, composed of three-dimensional (3-D) models that can include content, images, sounds, and videos.



This technology creates a "next-generation, reality-based interface".

Augmented Reality (AR): Classification

Depending on how the virtual layer is superimposed on a real environment:

- **Location-based AR apps:** Their functionality is based on the spatial position and orientation of the device to select and display relevant information about that location.
- **Image-based AR apps:** Use image recognition algorithms to trigger the display of relevant content on a recognized physical model.





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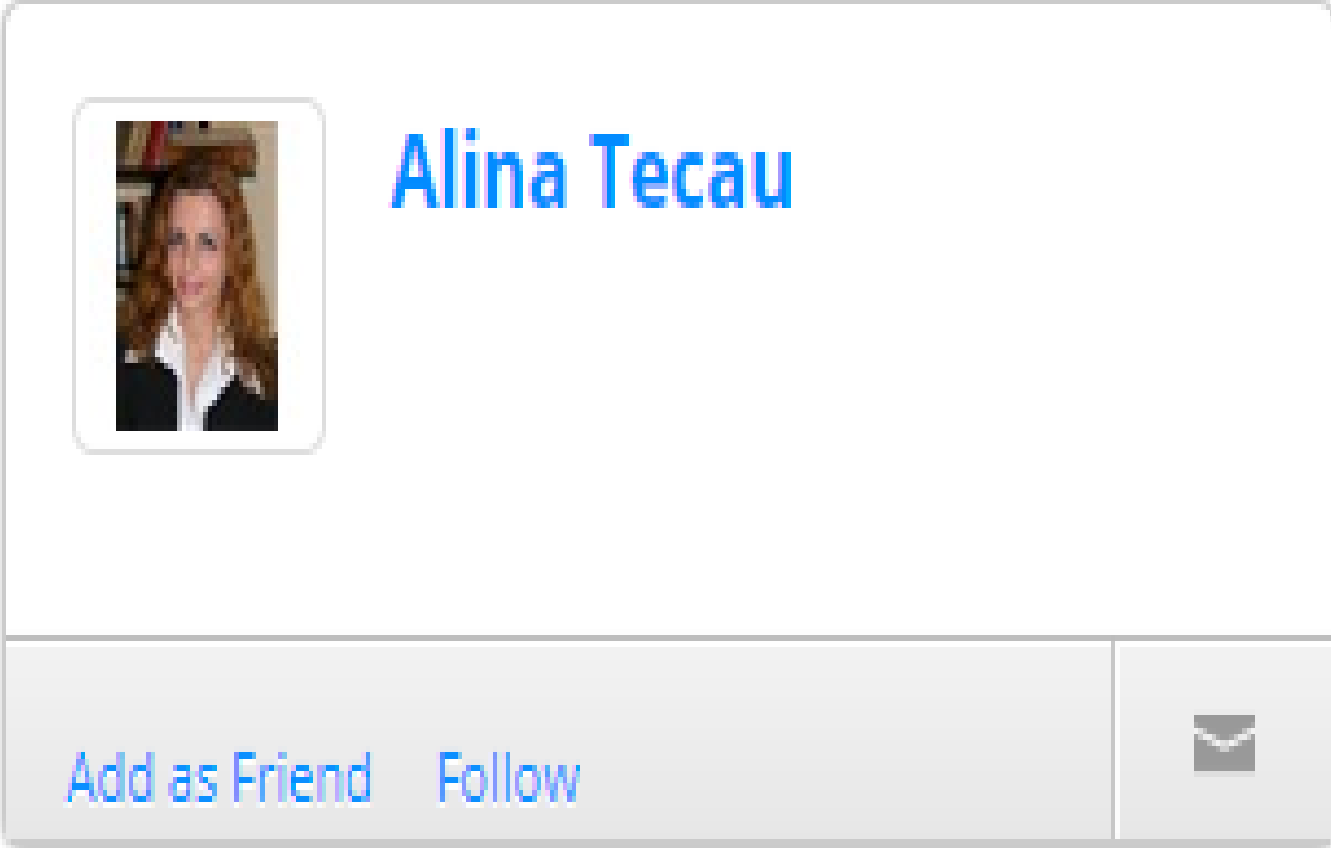
What AR Media stands for?



- ✓ AR Media is an online social network based on the principle of facial recognition, developed within the framework of the complex project: "Empirical modeling and experimental development of tools associated with emerging technologies in the field of online social networks (FUTUREWEB)".
- ✓ The project aims to study emerging technologies in the field of information and communication technology in relation to online social networks, identifying the degree and mode of adoption of these technologies by potential users.
- ✓ The main objective of the project is to carry out scientific studies and research with the aim of achieving empirical models and experimental developments in order to assess the impact of these new technologies, which include:
 - Complex analysis and recommendation systems (deep learning);
 - Internet of Things, body-worn communication devices (Wearables), neural analysis (pupilometers, galvanometers or EEC);
 - Augmented Reality;
 - Semantic searches in the field of online social networks.

The main functionalities of the AR Media social network:

- Add an unlimited number of members;
- Add members' personal data;
- Send personal messages between members;
- Post public messages with text and images within the network;
- Evaluate posts with LIKE;
- Track a member's activity;
- Create a group of friends;
- Manage your personal profile, friends, incoming messages, etc.
- User identification based on information encrypted in the social network database.



A user profile card for Alina Tecau. It features a square profile picture of a woman with long brown hair on the left. To the right of the picture, the name "Alina Tecau" is displayed in a large, bold, blue font. Below the name and picture, there are two blue buttons: "Add as Friend" and "Follow". On the far right of the card, there is a grey button with a white envelope icon representing a message function.

Radu Lixandroiu



Edit Profile

My Account

Navigation

› Activity Feed

› Friends

› Messages

› My Profile

Facial recognition: principles

Facial recognition is a biometric technique used to identify individuals. A facial recognition system is based on an (static) image of the individual's face (a picture) that is basically a set of pixels ordered by a particular model. The Pixel is considered the fundamental functional unit of a digital image.



Measurements of facial features (mandible, cheek shape, distance between the eyes, nose size, etc.) are stored by the system in a database for all individuals, so that they can then be compared with the face of the person standing in front of the camera to be identified.

A very important role in the facial recognition process is the system's ability to identify-localize the face of the individual, regardless of the background images.

In the process of facial recognition, different specific facial features are compared, and templates of about 80 nodal points of the face are created, in the form of a numeric code.





AR Media App

Features



Develop the sentimental status viewing service based on the latest posts and photos of online social network users, based on facial recognition, and using AR Media Augmented Reality.



The sentimental state view function comes as a complement to the facial recognition function.

After the person in an image is associated with a person from the database, the facial features are being analyzed.

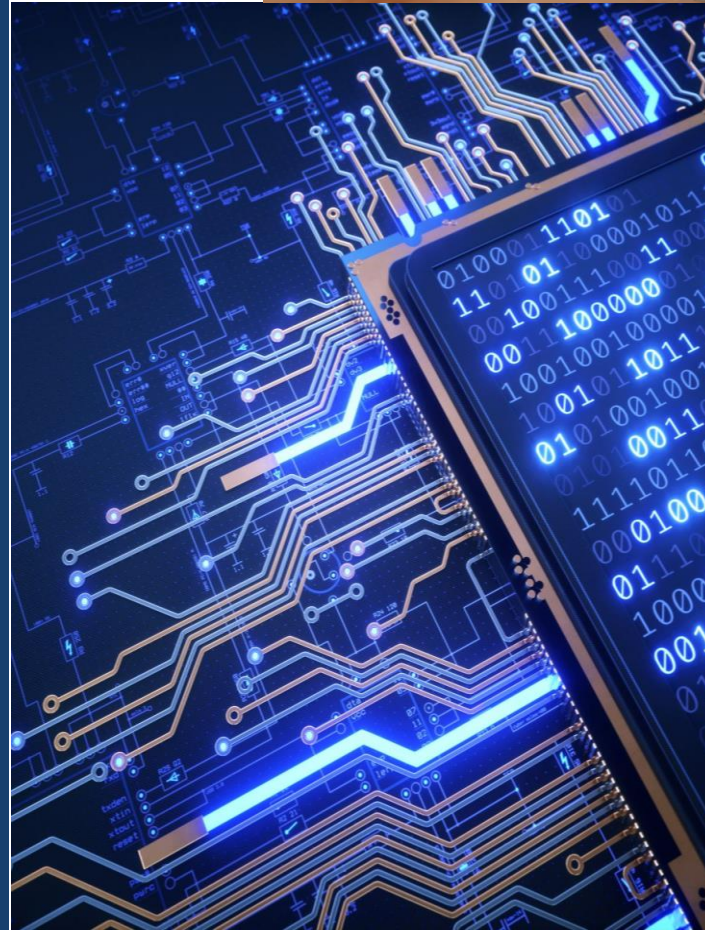
Feelings of joy, sadness, neutrality and nervousness are recognized based on mathematical algorithms that analyze more than 180 points of the face.

AR Media App

Features



View and share your
favorite photos and media
clips



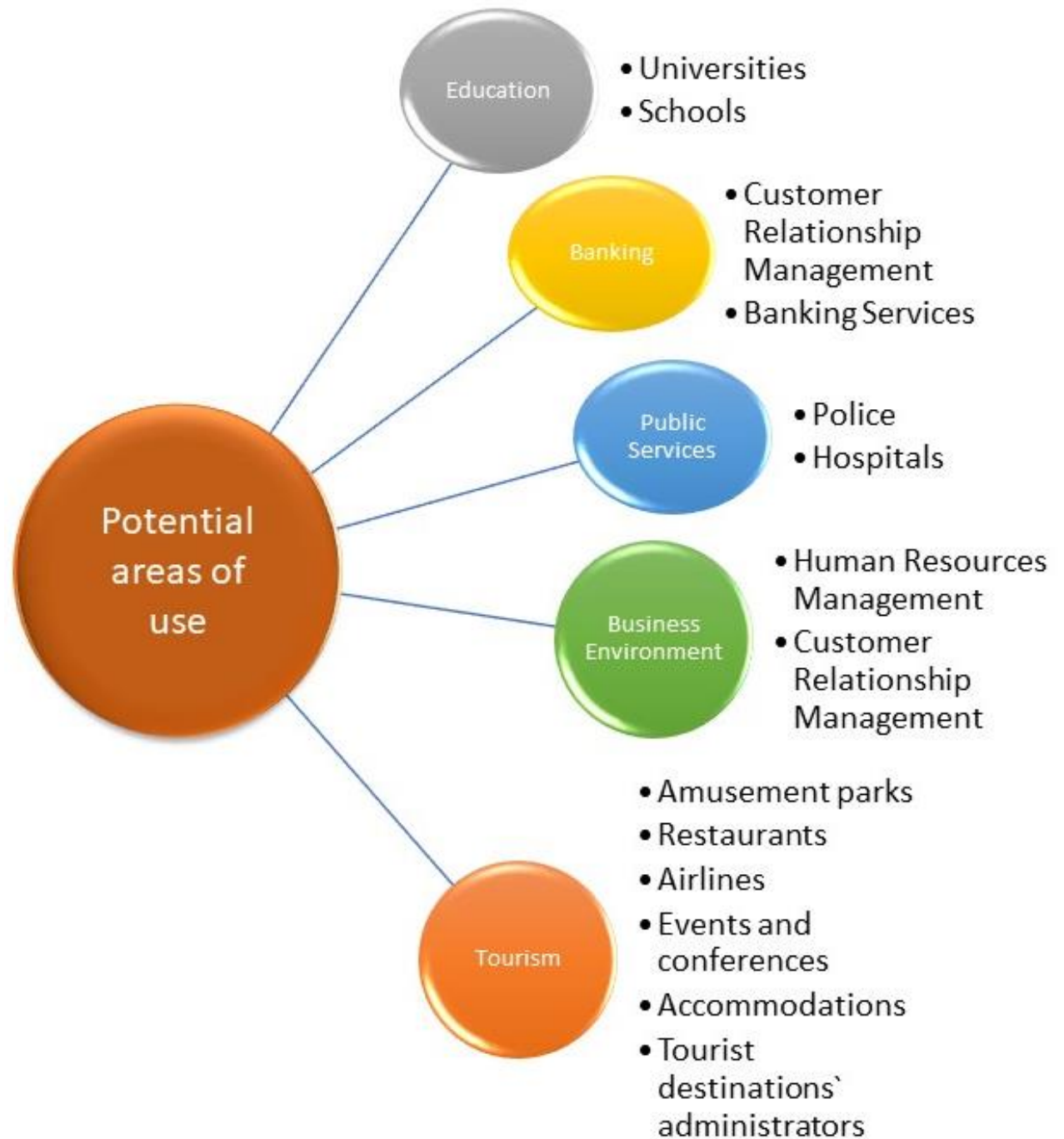
A posting module has been created to view and share photos on the social network, allowing you to add image files and share them to other members of the network.

Once uploaded, photo information goes into the process of identifying known figures as well as identifying the state of feelings.

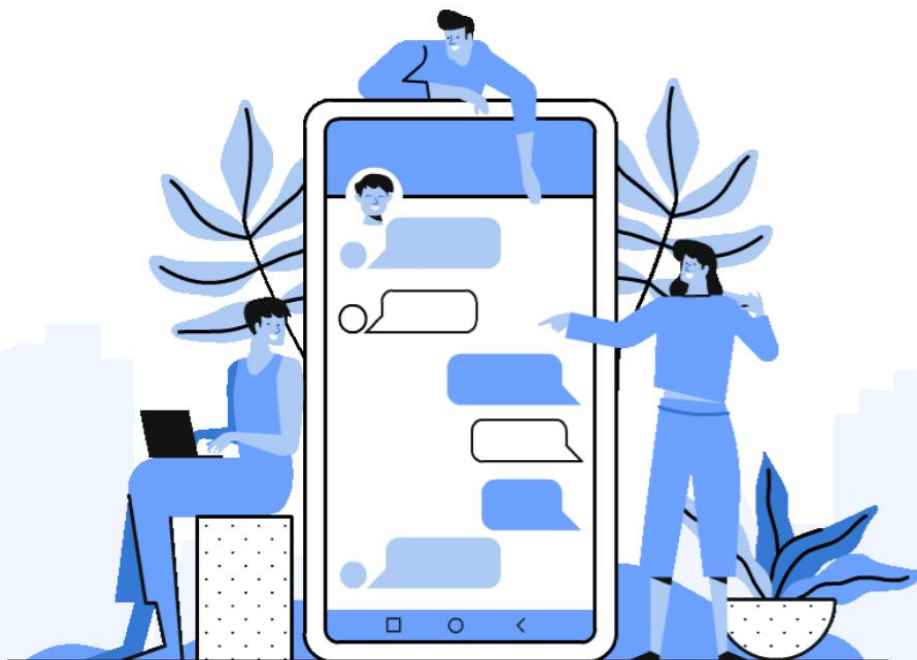
The author of the post has the right to delete the post if he considers it inappropriate.

Other members cannot delete its post, except for the social network administrator.

AR Media Potential areas of use



<https://futureweb.unitbv.ro>



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Brochure developed within the complex project:

Empirical modelling and experimental development of emerging online social networking technologies under PNCDI III - Program I Complex projects in consortia

CDI – 2017,

Contract 86PCCDI/2018