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STUDENTS' CONFERENCE

Jožef Stefan International Postgraduate School
and Young Researchers' Day CMBO

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INSENSION: Giving a voice to those who don't have one

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Poster number: **7**

INSENSION project

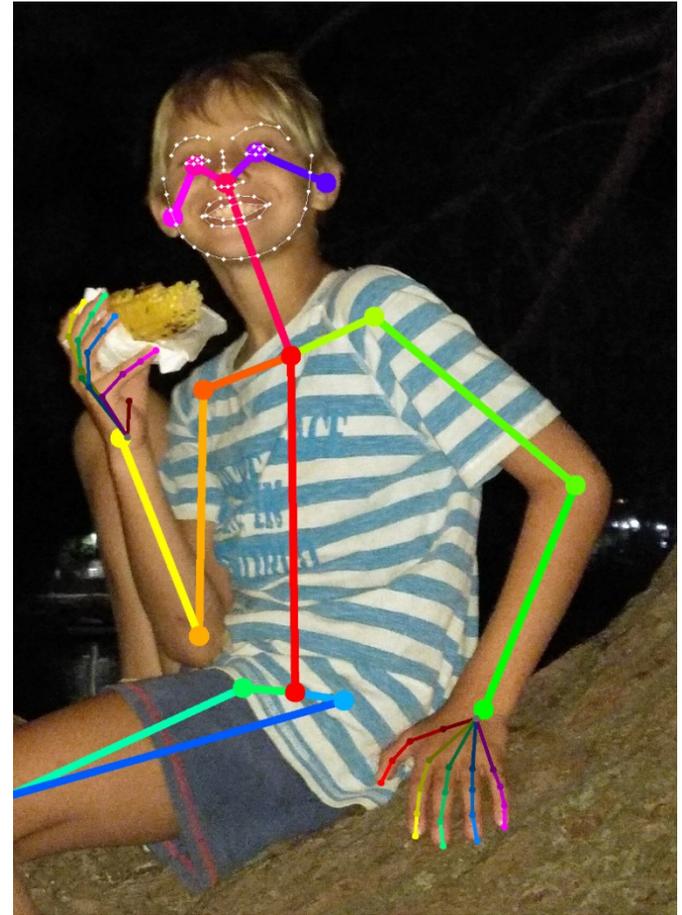
- An ICT platform that enables persons (PIMD) to use digital applications and services
- Increase their ability to self-determination and enrich their life
- Sense the intentions of its users and translate them into meaningful communications
- Extract the context of the communication

Proposed system

- Information collected from the camera
 - Collect non verbal signals
- Context
 - Objects and caregivers in the scene
- Remove movements that do not carry information
- Extract the behavioural state and communication attempts using ML and attempt to increase the wellbeing of the people.

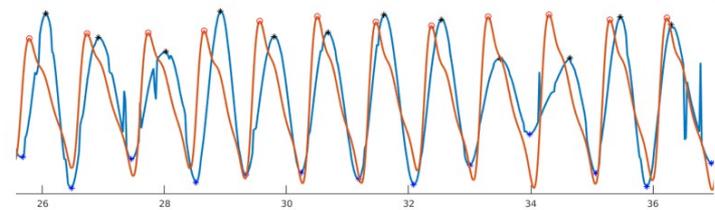
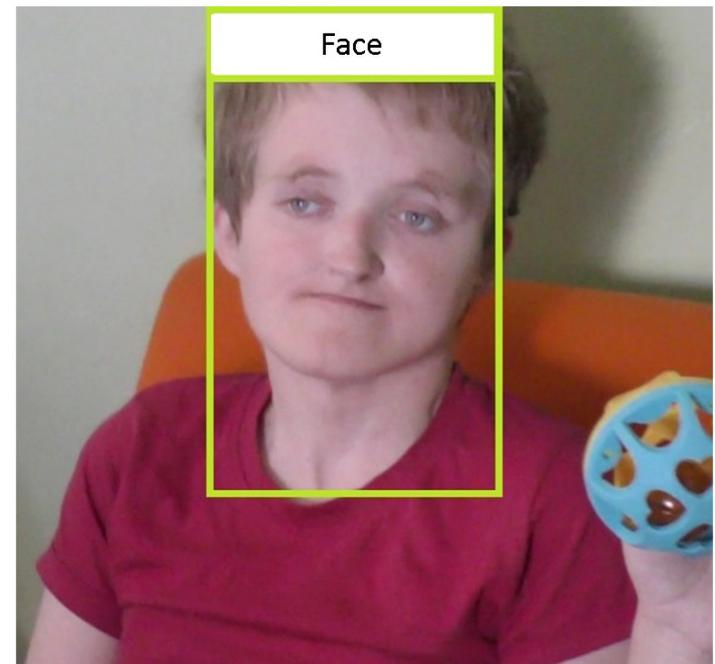
Bridging the gap

- Voice recognition
- Gaze tracking
- Facial features extraction
- Mapping the body parts
- Object detection



Behavioral state from the PPG

- Signal extracted from wearable or from video
- Reflects changes of blood volume in the skin tissue and is periodic



■ Ground-truth PPG

■ Reconstructed PPG



www.insension.eu

Personalized intelligent platform enabling interaction with digital services to individuals with profound and multiple learning disabilities



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PARTNERS:



Jožef Stefan Institute

