Medical Data Understanding

Marcin Grzegorzek

Pattern Recognition Group University of Siegen



Vision Activities

Resources 1 Vision

2 Activities

Vision

Activities Resources

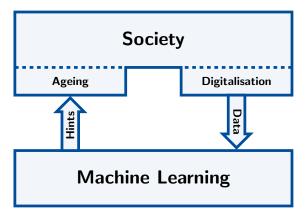
1 Vision

2 Activities

Society ⇔ Machine Learning

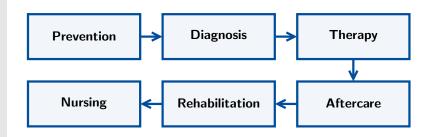
Vision

Activities



Vision

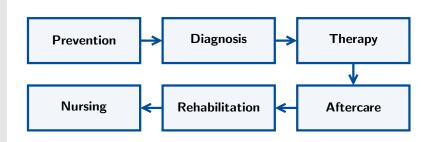
Activities



Vision

Activities

Resources



(1) Pattern Recognition for Holistic Health Assessment

Vision

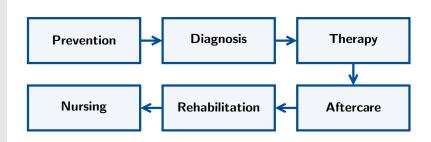
Activities



- (1) Pattern Recognition for Holistic Health Assessment
- (2) Focus on Neurodegenerative Diseases

Vision

Activities



- (1) Pattern Recognition for Holistic Health Assessment
- (2) Focus on Neurodegenerative Diseases
- (3) Ethical, Legal and Social Implications (ELSI)

Vision

Activities

Resources

1 Vision

2 Activities

Cognitive Village: Project Facts

Bundesministerium für Bildung und Forschung





Title	Adaptively Learning Technical Support System for Elderly
Duration	September 2015 – August 2018
My Role	Consortium Coordinator and Leader of WP2 "Adaptive Data Interpretation"
Consortium	Universität Siegen, 4 Companies, Fraunhofer Institute, Diakonie, Stiftung Neue Verantwortung, Stadt Bad Berleburg
Total Budget	2.900.000€
My Budget	449.000 €

Vision

Activities

Cognitive Village: Indoor Scenario

Vision

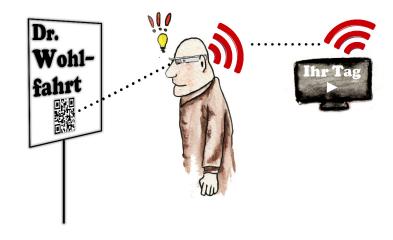
Activities



Cognitive Village: Outdoor Scenario

Vision

Activities



My-AHA: Project Facts

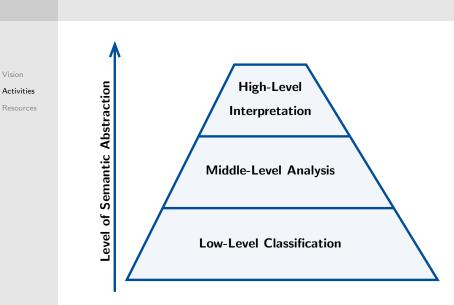
Vision

Activities



Title	My Active and Healthy Ageing
Duration	January 2016 – December 2019
My Role	Leader of WP6 "Data Fusion and Analytics"
Consortium	6 Universities and 8 Companies from 10 Countries
Total Budget	over 8 Mio. €
My Budget	300.000 €

My-AHA: Semantic Data Abstraction



Usage of JINS MEME

Accelerometer

Vision

Activities

Resource



Gyroscope

EOG Sensor

Vision

Activities

Resources

1 Vision

2 Activities

Resources

Vision

Activities

Resources

Cognitive Village (BMBF): 36 PM

(Adaptively Learning Technical Support System for Elderly)

Resources

Vision

Activities

Resources

Cognitive Village (BMBF): 36 PM

(Adaptively Learning Technical Support System for Elderly)

My-AHA (EC Horizon 2020): 27 PM

(My Active and Healthy Ageing)

Resources

Vision

Activities

Resources

Cognitive Village (BMBF): 36 PM

(Adaptively Learning Technical Support System for Elderly)

My-AHA (EC Horizon 2020): 27 PM

(My Active and Healthy Ageing)

ELISE (BMBF): 36 PM

(Interactive and Emotion-sensitive E-Learning System)