

DeciTrustNET

Trust based Decision Support System for Social Networks with Uncertain Knowledge

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Abstract

In real world scenarios, such as public security, e-health and e-marketing, we have a **large body of data from various networked heterogeneous information sources** that often conflict with each other and provide inconsistent knowledge. **DeciTrustNET aims to create a novel computational framework for trust based social choice by merging multiple heterogeneous information in an adaptive manner** to provide consensus based personalized recommendation. This framework will be applied in the context of a new e-health trust based social network to increase healthy lifestyle.

Research objectives

- ▶ To establish a **SNA framework for managing multiple inconsistent heterogeneous information sources** that allows the definition of trust
- ▶ To define **trust propagation and aggregation operators for trust networks** driven by game theoretic modeling of malicious users.
- ▶ To create a **trust based feedback** to provide **personalized advice**.

Proposed Trust Network

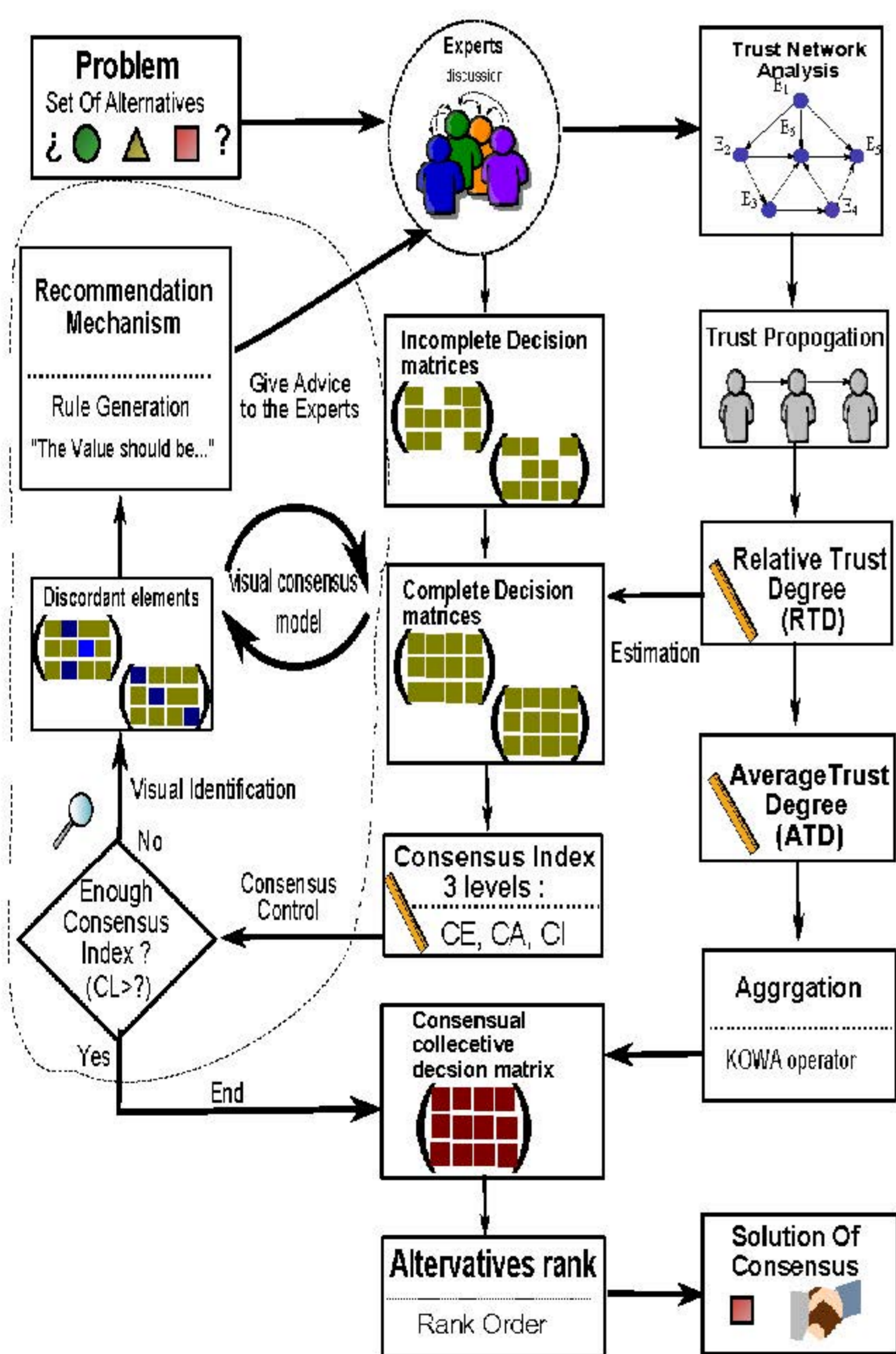


Figure: DeciTrustNET system architecture

Application: E-health Trust Social Network

Personalized self-monitoring system to increase healthy lifestyles in people with especial needs.

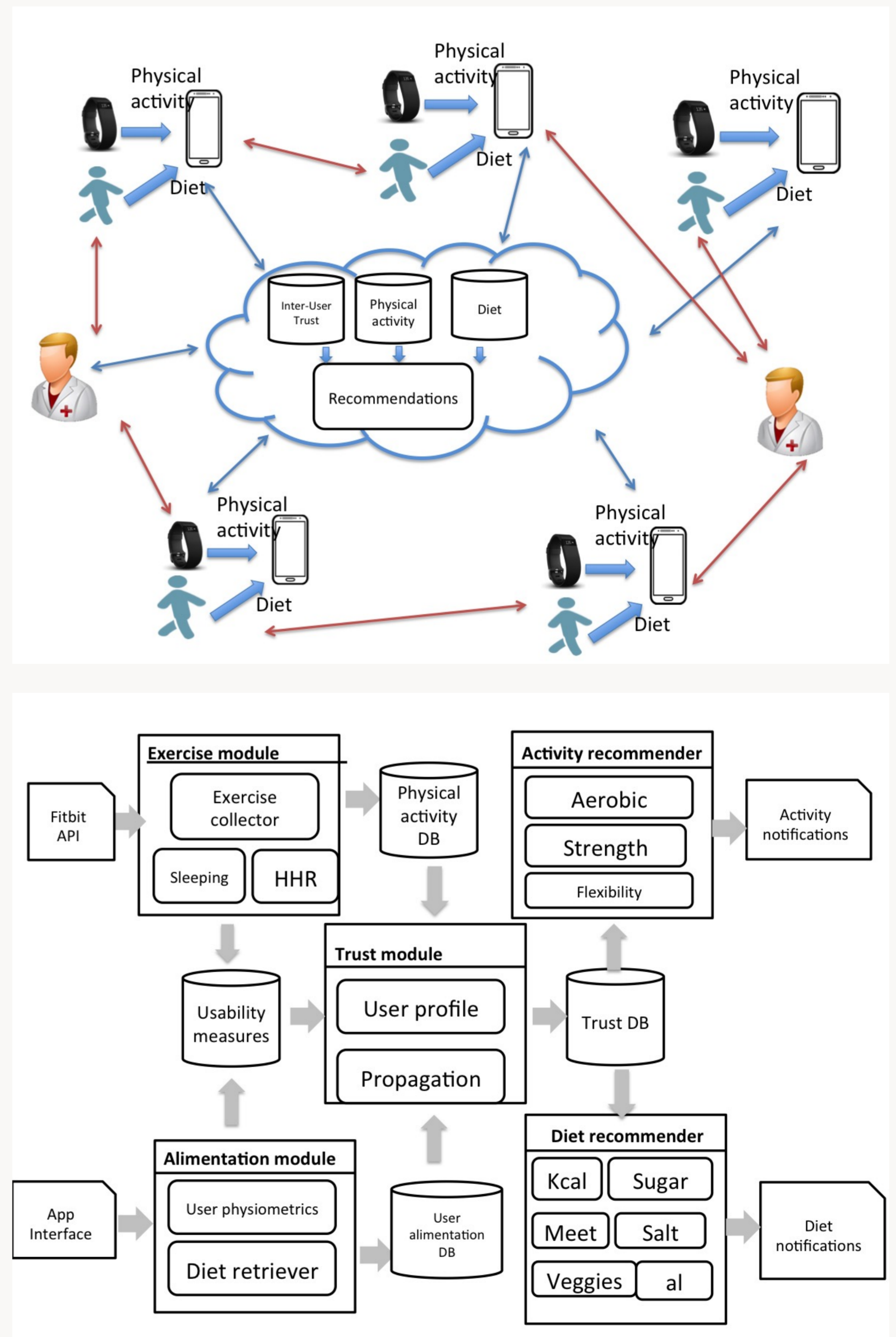


Figure: e-Health SN architecture

Acknowledgements

This project is being funded by the grant H2020-MSCA-IF-2016-746398-DeciTrustNET

Project website: <http://decitrustnet.dmu.ac.uk/>