Today, one of the major challenges of Internet-based health interventions is the timely identification of adverse behaviors based on individual thresholds. For example, adherence variations related to medications and threshold is one of the major challenges today.

Automata Theory

States represent the health condition of individuals; state transitions reflect changes in the health condition

Proposal

Prediction of adverse behavior by mining association rules on multi-dimensional behavior that is relevant to a particular disease pattern.

Related Work


Summary

Today, one of the major challenges of Internet-based health interventions is the timely identification of adverse behaviors based on individual thresholds. For example, adherence variations related to medications and thresholds. It is expected that front-ends of EW-HIS will be mobile applications tailored to various diseases for which multi-dimensional behavioral patterns can be used as novel instruments for anamnesis, diagnosis, behavior prediction and health interventions. The back-ends of EW-HIS will rely on a secure and scalable server infrastructure.

In summary, EW-HIS are assumed to provide a novel instrument for authors of Internet-based health interventions. That is, adverse health behavior can be identified and appropriate coping strategies proposed before the incidence of a serious and costly health-related event.

Expected Results

• A novel instrument for anamnesis, diagnosis, behavior prediction and health interventions
• Improved and sustainable health status of individuals
• Reduced health system costs by early diagnoses and avoidance of false positives

Internet of Things Services

Innervate health states and trigger state transitions with the help of sensor technology

Problem

• People do have individual thresholds with regard to adverse health behavior
• Reaching these thresholds does not only negatively affect the individual but also the health system in general
• Prediction and management of adverse health behavior while considering inter-individual & intra-individual thresholds is one of the major challenges today

Related Work


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