POWER2DM

Predictive model-based decision support for diabetes patient empowerment

Conceptual Design
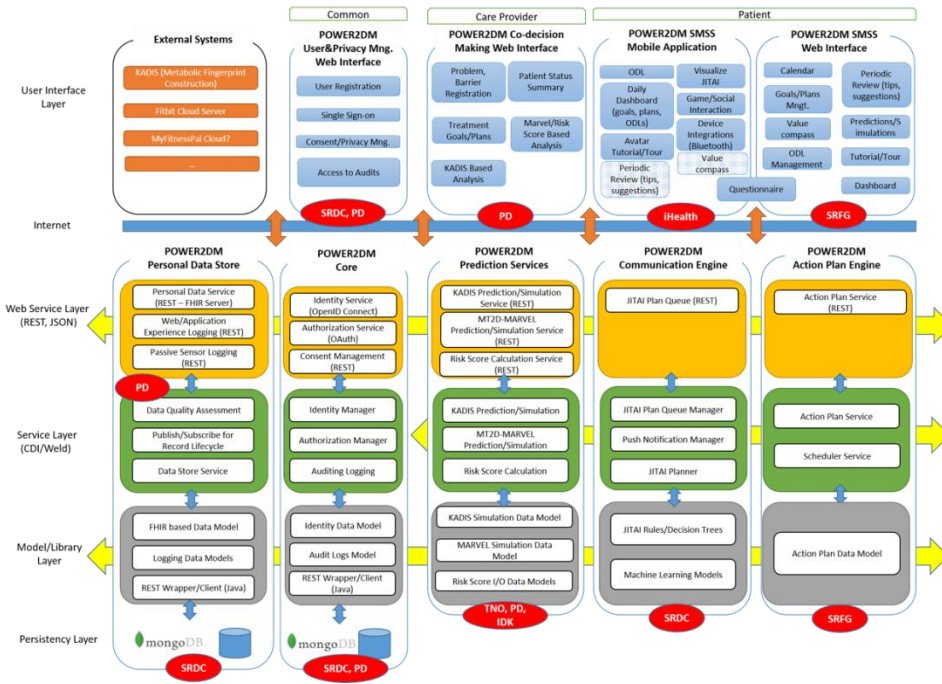
Key Features
- Innovative technologies
- Predictive models
- Real time personal data processing
- Theories of behavior change, self-management, Cognitive Behavioral Therapy
- Just in Time Adaptive Interventions
- Psychosocial barriers diabetes self-management
- Patient-physician communication
- Personalization of support
- Applied in clinical setting

personas, scenarios, storyboards

Abbot FreeStyleLibre Flash Glucose Monitor; iHealth Wireless Smart Glucose-Monitoring system; Fitbit HR Charge 2; iHealth Wave - Activity, Swim and Sleep tracker; The Spire

Prediction models

Area	Problem Area	Cause/Barrier	Intervention type	Intervention	BCTs
Glucose Monitoring	Too little	Negative affect-frustration over lack of success	**Psycho-education** is helpful, normalizes the anxiety, acknowledges negative emotions (and thereby reducing self-blame), and can provide with basic/general behavioural tips regarding behavioural activation. Possible formats of psycho-education: -story telling (example/role model) -informational text -avatar explaining (audio/visual) -video (behavioural tips)	Patient is presented with information and normalizing stories about how other people's glucose levels vary. (normalizing): "It's actually pretty common to have variation of blood glucose levels. Most patients experience this at some time in their life."	
				Patient is presented with information on how others also feel frustrated by lack of success. (normalizing) "It can be difficult when you try your best to achieve something but you just don't feel like it's working out. Here are what some other people said about being frustrated about lack of success in controlling their blood glucose levels..."	
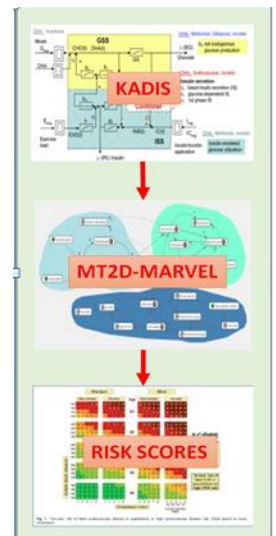
analysis of the layers of diabetes self-management goals and psychosocial barriers in order to provide the right support at the right place and time

value → goal → action