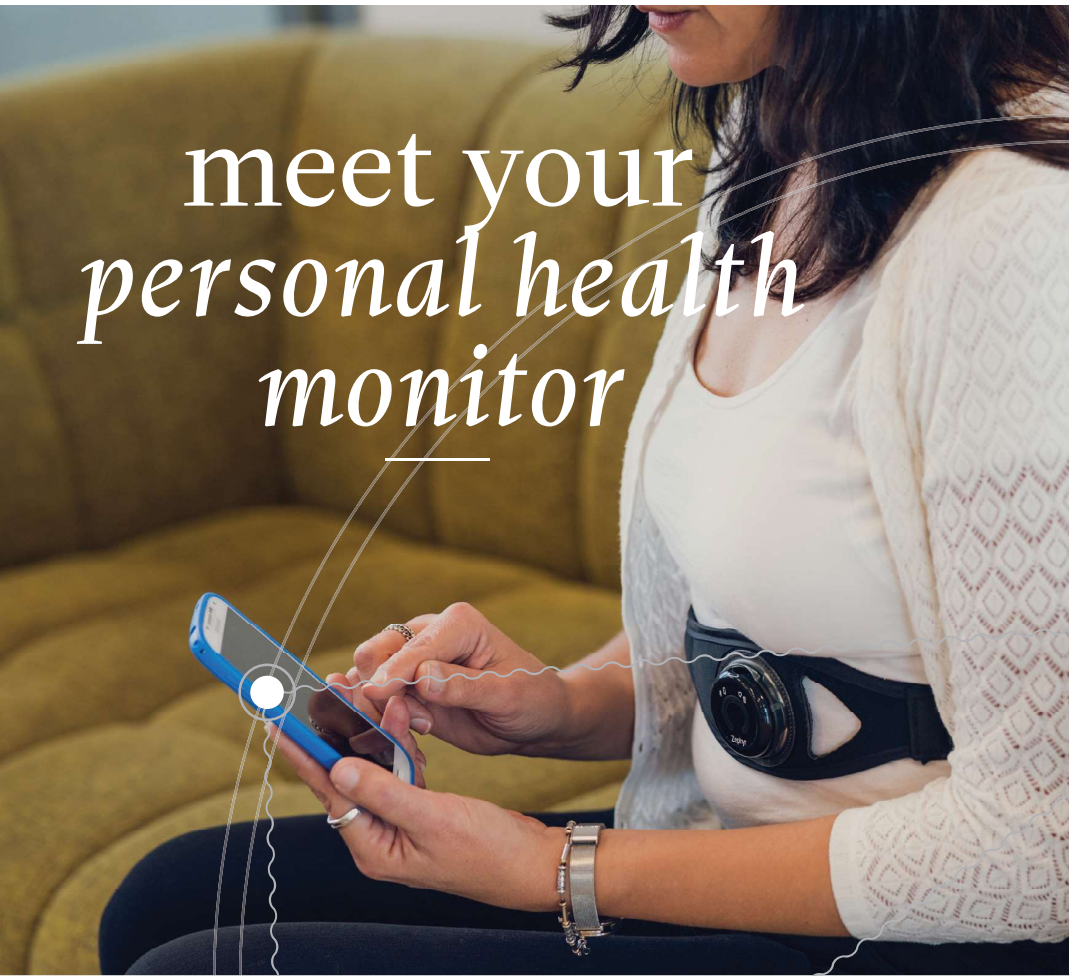


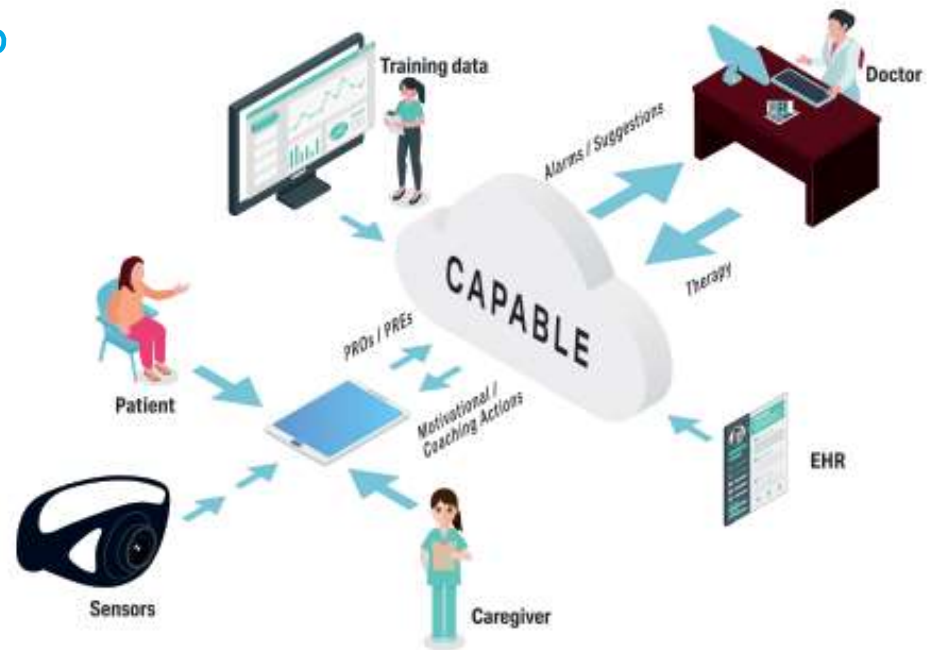
meet your personal health monitor



Prof. Mor Peleg, Department of Information Systems



PERSONALIZED HEALTHCARE



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The medical data collected from hundreds of patients will be used to optimize treatment protocols _____

Imagine Maria, a 62-year old cancer patient, recuperating at home following surgery. Her husband is home only on weekends as he travels for work. In addition to following her oncological treatment plan, Maria finds it difficult to manage her diabetes and hypertension on her own. She has ongoing questions about her medications and their side effects. With no one to talk to on a daily basis, she feels very anxious and risks falling into depression.

Now envision Maria with a special medical app on her smart phone and a health-tracking belt around her waist. These devices are not only monitoring her vitals, they gather real-time medical data and update her personal records. Thanks to recent advances in AI algorithms and new analytic tools, in just 10 minutes Maria will receive a message from her medical team with clinical recommendations that are tailored to her situation. Maria feels that

her doctor is virtually by her side, and her anxiety dissipates.

Sounds like the future?

This is actually happening now, thanks to CAPABLE, an AI application being developed by Prof. Mor Peleg, head of the Data Science Research Center and Chair of the BSc Data Science program, in collaboration with Prof. Silvana Quaglini of the University of Pavia, Italy.

CAPABLE (CANCER PATIENTS: Better Life Experience) is a knowledge-based system designed to help patients with kidney cancer and diabetes manage their care at home. CAPABLE monitors the patient's physiological symptoms, collating, analyzing and cross-referencing the personal medical data with a growing database of medical guidelines and intervention strategies. The application also acts as a virtual coach to help patients better adhere to their treatment plan and deal with related psychological issues. Medical teams

remotely monitor the patient's 'dashboard' so that they can promptly recognize any issues that require immediate attention.

The medical data collected from hundreds of patients will be used to optimize treatment protocols – with a special emphasis on patients with multiple morbidities.

CAPABLE is being developed in collaboration with an international consortium based in Italy, with funding from the European Commission.

Prof. Peleg is a past recipient of the American Medical Informatics Association's New Investigator Award and recently received the University of Haifa Rector's Award for Outstanding Researchers.

“Our ultimate goal is to create a generic app and machine learning system that will help all types of patients,” explains Prof. Peleg.