**General background**

Many predictions propose that the future demand of healthcare will grow significantly while the relative population of working-age citizens will reduce; thus, fewer healthcare workers need to provide care for more citizens. Therefore, the future role of healthcare workers may change radically and consequently their methods and tools needed to adopt such change of role.

Telemedicine is one concept that meets the future demand of healthcare, suggesting increased self-care of citizens by the monitoring of citizens’ health remotely. There are a vast number of positive effects of telemedicine, such as fewer costly physical healthcare meetings, fewer transports, greater geographic patient coverage, potentially more precise medical decisions thanks to higher resolution of health data, and more.

Telemedicine includes the collection of both biomarkers and subjectively based health indicators. Biomarkers can be measured using advanced sensor technologies, for example Blood Pressure (BP) using a BP meter, Heart Rate (HR) using a HR meter, blood sugar level using a glucose meter, among other parameters and devices. Subjectively based health indicators can be measured using validated health assessments, where individuals answer questions about their health whereupon functional health indicators can be calculated.

The market of consumer products, such as smart watches, with integrated sensors is growing rapidly, and many platforms for telemedicine exist. Some platforms are specified on a single medical condition, and some provide greater flexibility and support many medical conditions.

The Swedish organization “Sveriges Kommuner och Regioner” (SKR) classifies telemedicine (“egenmonitoriering”) in three main categories: 1) Ordinated telemedicine which means citizens will be ordinated the equipment needed to monitor a certain medical condition, 2) Recommended telemedicine which means citizens will be recommended to monitor certain aspects of health, and 3) Self-initiated telemedicine which means citizen chooses to monitor health on own initiative. In “Västra Götalandsregionen” (VGR) and at Sahlgrenska University Hospital (SU), a solution of telemedicine will be introduced; however, there is no plan to include self-initiated telemedicine even though the market of consumer products that supports the monitoring of health is booming.

Based on the background above, a master thesis proposal is provided below:

**Barriers to why public healthcare seldom adopts digital technologies at a competitive pace – a case of self-initiated telemedicine**

**Short background**

Public healthcare is conservative when it comes to adopting digital technologies. Oftentimes, organizational inertia such as procurement processes or regulatory issues such as medical device regulation (MDR), cybersecurity, data integrity and security among other aspects get the blame for the adoption of such technologies. However, based on initial exploratory studies conducted at SU, the department of Digital Development at SU have found traces of other subtle barriers to why digital technologies are seldomly fast adopted.

**This master thesis proposal aims at** the studying and sorting out of barriers to why digital technologies are seldomly adopted in public healthcare and specifically at Sahlgrenska University Hospital. The expected result is a report.

**Prior knowledge:** We expect 2 students from Industrial Engineering and Management or alike.
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