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## Big data applied in healthcare context: The case study of diabetes

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As the industry 4.0 era gives us extensive IoT opportunities to provide evidence and context based data, opening for new approaches and methods to meet societal challenges. The handling of chronic diseases is global and poses challenges to the current health systems. The incidence of the chronic disease diabetes is of epidemic character. In 2015, 415 million in the world have diabetes and it is estimated that by 2040, 642 million in the world will have diabetes. More specifically: Diabetes is a heterogeneous group of conditions that all result in, and defined by, rise in plasma glucose level if not well treated. If it is untreated, death is sooner or later, if later with a lot of unpleasant complications over time. There are two main types of diabetes, type 1 (10% of all); and type 2 (85-90% of all). Diabetes places extremely high demands on the individual in terms of self-care, and a lot of complications can occur. It is a well-known fact that this creates serious health condition and high social costs. Potentially, this can be prevented with new methods for better support for self-care. Given developments, recent advances in mobile computing, sensor technology, big data can be used to better understand diabetes, measurements and data. To overcome some of the problems in this area, open data, such as social media, special designed apps, sensors and wearables can be used to find proactive ways and methods of diabetes treatment.

### Biography

Jenny Lundberg has completed her PhD in Computer Science at 2011 at BTH, the most profiled IT University in Sweden. She is a Senior Lecturer at Linnaeus University and a Researcher at Lund University. She has extensive international research and education collaboration experiences. Her research interest is in health applications and work in close cooperation with clinical researchers in healthcare with Big data, e- and m-health approaches and techniques.

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