Digitalization in society and industry: An applied research perspective

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Digital technologies have become ubiquitous in our everyday life and activities. Industry and society are becoming more and more dependent on the digital infrastructure. A switch to digital triggers significant change to industries but on the same time opens up new opportunities. Identifying and utilizing these opportunities is crucial for maintaining the competitive advantage in the digital landscape. Some of the areas where digitalization bring new opportunities are the core of this talk. The guiding research challenge that he has been investigated is related to the finding the most optimal approaches and methods for reaching sustainable digitalization using interactive computing. Key contributions of his work among others include: a) research collaboration with Siemens for establishing a digital twin for their gas turbines for optimizing the design process of new turbines, b) applying user perspective rendering for improving visibility and ergonomic issues for forklifts drivers in cooperation with Toyota Material Handling, c) applied research cooperation with other societal actors such as Linköping University Hospital and Sectra focusing on the use of interactive computing approaches for increasing the efficiency of the tissue sample preparation in a digital pathology process.