



## Minds and Machine – Digital Transformation of Medicine

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With advances in healthcare IT, healthcare providers will have access to a broad ecosystem of digital ways to collect, store, and perform tasks with clinical information and could potentially be overwhelmed by the abundance of data they have to deal with. Without data mining it will be difficult to make any meaningful decisions for the benefits of patients.

This also impacts on the operational excellence of hospitals too. It is in the interests of healthcare providers to use data mining for efficiency. As mentioned in the GE White Paper: Industrial Internet: Pushing the boundaries of minds and machines from 2012, a one percent efficiency gain globally could yield more than \$63 billion in health care savings.

Patients' medical histories containing vital, diagnostic, and therapeutic – and eventually bio-marker data of patients can be anonymously pooled. Then clinicians can detect patterns that may lead to better treatment for those with rare diseases, predict an emerging health epidemic or even determine how combinations of certain medicines for specific patients should be avoided.

We will be discussing the impact of big data in medicine, and the capabilities of deep learning to create insights based upon different data streams.