

# Learning from routinely produced clinical data and Big Data technology in Radiation Oncology

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Propositions belonging to this dissertation

**Learning from routinely produced clinical data and  
Big Data technology in Radiation Oncology**

Tim Lustberg

*“To improve and personalize medicine, rapid learning platforms must be able to process FAIR ‘Big Data’ to evaluate current clinical practice and to guide further innovation”*

TL

*“routine clinical data contains valuable information that could be harvested to improve and personalize patient care and even more so if recorded in a detailed, structured manner”*

TL

*“Having access to the source data, how it was converted, by whom and having it placed in context will greatly increase the effectiveness and transparency when applying Big Data technologies.”*

TL

*“Big data is like teenage sex: everyone talks about it, nobody really knows how to do it, everyone thinks everyone else is doing it, so everyone claims they are doing it...”*

Dan Ariely

*“The current data collection methods: clinical trials, clinical registries and routine clinical data, all have their use in medical research as described in Chapter 2. All of these sources are a valuable source of information to innovate health care, and instead of viewing them as competing – as is sometimes postulated, they should be valued as complementary.”*

TL

*“In the future, we would like to move to a system where the Mapping Service will become obsolete, because the delineation labels will be based on a proper terminology and every clinician in the world will use the same guidelines. However, we have to acknowledge that this might never be achieved because it requires a level of consensus which is rarely reached in medicine.”*

TL

*“The mind can be convinced but the heart must be won”*

Simon Sinek

*“Technology alone cannot drive innovation in health care. Chapter 5-7 all demonstrate that the success lies in the combination of technology and human interaction.”*

TL