

# **Propositions pertaining to the thesis:**

(Stellingen behorende bij het proefschrift)

## **From Data to Decision**

*A Knowledge Engineering approach  
to individualise cancer therapy*

**Erik Roelofs, July 8<sup>th</sup> 2016, Maastricht**

Expert systems based on literature and guidelines from clinical trials have increasingly limited value for individualised medicine.

*er*

Quantity is not enough; proper data management is essential for healthcare to adhere to rising quality standards.

*er*

New healthcare information technology efforts should focus on making medical data FAIR: Findable, Accessible, Interoperable and Reusable.

*er*

Knowledge-driven healthcare enables cost-effective application of limited, expensive resources, as introduced for proton therapy

*er*

Control theory dictates that optimal healthcare is only reached by feedback of the true endpoint. The question remains what the definition of *optimal* is.

*er*

Innovation must coincide with standardisation to prevent organisations from falling back to suboptimal states of operation.

*er*

Privacy-preserving sharing of medical data should be rewarded.

*er*

"Data! Data! Data!" he cried impatiently. "I can't make bricks without clay."

*Sherlock Holmes - The Adventure of the Copper Beeches by Sir Arthur Conan Doyle*

*er*

"Knowing is not enough; we must apply. Willing is not enough; we must do."

*Johann Wolfgang von Goethe*

*er*

"Quality is remembered long after price is forgotten"

*Sir Henry Royce*

*er*

"Wat weerd is da 'j doot; is ok weerd da 'j 't good doot"

*Twents gezegde*