# On data mining in context : cases, fusion and evaluation
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## Stellingen
### behorende bij het proefschrift
### 'On Data Mining in Context: Cases, Fusion and Evaluation'
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1. Steps beyond the modeling phase in the data mining process can have an important impact on the quality of the end result; research problems can be identified and methods developed that cover these steps, and these methods can generalize over multiple problems and problem domains (this thesis).

2. The fact that predictive models built on a data set enriched with data fusion can outperform models built just on the original data set, is a paradox (this thesis).

3. Feature construction can decrease as well as increase both bias and variance (this thesis).

4. AIRS is a relative of k-nearest neighbor and an even closer relative of competitive learners such as NeuralGaz and Self Organizing Neural Networks (this thesis).

5. Bias variance analysis is a useful tool for diagnosing models beyond standard error estimation, but more research is needed to increase its adoption.

6. Though there are very few examples, it is possible to identify research problems and develop generally applicable methods for the deployment step in the data mining process.

7. The ecological study of the data miner in its natural habitat is an interesting new research method for data mining research (adopted from J.J. Gibson, The Ecological Approach to Visual Perception, 1979).

8. Within the context of data mining, the distinction between statistics, machine learning and neural networks is more a matter of cultural nature than a case of differences between the techniques, and the introduction of data mining as a research community with its own research groups, conferences and journals has contributed to the integration of these fields.

9. The data mining research community can play an active role in reducing the adverse impact of data mining on privacy.

10. In science, the emphasis is placed on validating theories; the creative process to come up with new theories in the first place is often ascribed to ingenuity, epiphany, divine intervention or sheer random luck. In art in contrast, the emphasis is on methods to steer the creative process and less on methodological validation of quality of the end result. In this sense both fields may have a lot to learn from each other.