

# Propositions

accompanying the dissertation

## An end-to-end framework for Prognostics and Health Management

From raw data to maintenance scheduling

by

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1. Engineering works related to ML applications without publication of the corresponding code are to be considered fraud for the research community. [Thesis]
2. If every prediction about the future is wrapped in uncertainty, then predicting that uncertainty is like chasing your own tail—each prediction leads to another layer of uncertainty. [Thesis]
3. Reinforcement learning resembles a puppy learning to sit and stop barking, rewarded with a cookie. Deep reinforcement learning is akin to a bloodhound search and rescue dog, but still rewarded with a cookie. [Thesis]
4. Neural Networks may mimic the neurons of the brain and their connections, but at the current stage, they are mere shadows of consciousness, highlighting the gap between artificial and human intelligence. [Thesis]
5. Science is not built on fancy words, but truth speaks plainly, and complexity is often just a camouflage for confusion.
6. A PhD defense is like trying to convince your fitness instructors that your new workout routine is the secret to getting pumped, while they question every exercise and demand proof. The dissertation is your detailed workout log, complete with progress pictures and notes on all the times you almost quit but didn't, backing up your claims.
7. The urging of funding pushes scholars towards more marketable topics rather than pursuing innovative ideas.

8. Researchers who focus on increasing their research metrics can compromise academic integrity, leading to prioritizing quantity over quality in their contributions to knowledge.
9. As the number of papers published per researcher each year increases, the pace of technological advancement appears to slow down.
10. Knowing when to engage in creative thinking shows intelligence, while choosing to rest demonstrates wisdom; combining both is what leads to genuine insight.

These propositions are regarded as opposable and defensible, and have been approved as such by the promotor prof. Dr. ir. R.C. Alderliesten and promotor Dr. D. Zarouchas .