

## Sensors, algorithms, and representations for efficient environment perception

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# Propositions

accompanying the dissertation

## **Sensors, algorithms, and representations for efficient environment perception**

by

**Thomas Markus Hehn**

1. Audition is an overlooked sensing modality for autonomous vehicles and should be further explored.  
*This proposition pertains to Chapter 2.*
2. Stixels *were* a great idea.  
*This proposition pertains to Chapter 4.*
3. The value of a representation is determined by its application.  
*This proposition pertains to Chapter 4.*
4. Unsupervised representation learning will become as ubiquitous as ImageNet pretraining.  
*This proposition pertains to Chapter 5.*
5. In the future, only algorithm evaluation will require large-scale annotation.
6. Tesla's name "AutoPilot" for an advanced driver assistance system is misleading and dangerous.
7. Motivating research projects solely on potential paper outcomes is harmful to scientific progress.
8. Focus on benchmark results incentivizes sloppy science.
9. Open source implementations need to become a requirement for publications in machine learning.
10. Human ignorance is more dangerous than artificial intelligence.

These propositions are regarded as opposable and defensible and have been approved as such by the promotor prof. dr. D.M. Gavrila.