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Affect and Learning: a computational analysis

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Stellingen behorende bij het proefschrift *Affect and Learning: A Computational Analysis* door Joost Broekens.

Stelling 1. Artificial affect can be used to control (mental) exploration and exploitation behavior of adaptive agents, and doing so can make the learning process more adaptive and more efficient (this thesis).

Stelling 2. Real-time human-communicated affect can be used as additional reinforcement learning signal to an adaptive robot. This benefits learning a new task (this thesis).

Stelling 3. Affect (arousal - pleasure) is a useful abstraction to study natural processes of emotion-based adaptation, in both the mood (long-term) and emotion (short-term) case (this thesis).

Stelling 4. A formal notation can help to compare and integrate emotion theories as well as facilitate debugging computational models of emotion (this thesis).

Stelling 5. Interdisciplinary research is both interesting and frustrating: frustrating because explaining (the relevance of) your work is a continuous struggle, interesting because the problems addressed touch many.

Stelling 6. Artificial intelligence is not scarier than natural intelligence. Both eventually follow the same rules of nature.

Stelling 7. Undergraduate students are often grossly underrated as a resource for doing research.

Stelling 8. A scientist's urge to publish as much as possible is a major cause of 1) information overload for other scientists, 2) feelings of doubt about the relevance of science in general, and 3) the burning away of research funding: quality should go before quantity.

Stelling 9. Paper-based publishing is an inefficient and outdated way of publishing scientific results in most cases: interactive media are much more efficient to explain experiments, results, mechanisms and theories.

Stelling 10. Even though Science and Religion can exist as different world views within the same person and be beneficial to each other, the views are incompatible due to their inherently incompatible nature of *truth*.