An unknown machine learning host for your user interface

Can we trust artificial intelligence when it comes to critical decisions? How can we be certain not another Skynet will reign chaos upon us? Today, artificial intelligence is being increasingly integrated in our everyday lives. As the integration continues, so does the uncertainty whether it can be trusted or not. Is it possible to increase the trust towards a machine learning component?

Artificial intelligence has lately become a boom that millions of people are in daily contact with, often without knowing. What happens when artificial intelligence is part of your application, and wants to help you make a choice?

Studies in this thesis reveals the lack of trust towards a machine learning component, when no further information is available. The study shows a result that transparency and trust are important factors for a user to actually feel the urge to use the machine learning component. A main key to create trust towards such a component is the illusion of being in control, and to ask for help when needed.

"Machine learning brings the promise of deriving meaning from all that data." Y. Guo, Google

Machine learning is used to make sense of data as the volume of data goes beyond human comprehension and therefore human capabilities of making decision of it, and the growth of machine learning is undeniably making the user interaction critical.

The brain and dialogue metaphor
To visualize a machine learning component and create a concept of life, the thesis writers came up with the brain and dialogue metaphor. A pulsating brain relates to the center of center of human intelligence with a pulsating force illustrating a heartbeat. The dialogue creates an identity which implies interaction.

Transparency and control
When using machine learning, transparency in terms of communicating and illustrating how the component made its decision is important for creating a trust towards the artificial entity. Users generally feel the need of being in control of a decision, which means asking for help instead of having forced upon them.