Modern computer scientists have successfully engineered an theory of mind neural network that can accurately predict another computer’s actions called ToMnet. ToMnet consists of three different neural network, the first learns from the computer’s past actions, the second tries to understand the computer’s “beliefs” and the third incorporates data from the first two networks to predict the computer’s future actions. Theory of mind refers to the ability to attribute mental states, beliefs, desires, emotions, etc.

ToMnet will aid human-computer relationships in the near future because of what it has achieved. Being able to predict a humans actions based on past behaviour and current emotion/belief is a leap in human-computer interaction. Not only will it help us in our day to day lives it will open numerous applications in industry/business.

The solution architecture consisted of three neural networks, one to analyse the computer’s past actions, one to understand its “beliefs”, and one to predict its future actions based on the previous two networks. Not only could ToMnet predict the computer’s future behavior, it could also understand when the computer held a false belief. False belief is a crucial milestone in theory of mind, it refers to the ability to recognize that others can have beliefs about the world that is diverging. However, since ToMnet is trained within a closed experiment it is hard to say how effective ToMnet will be in a new environment.