

LEARNING LIKE A HUMAN IN COGNITIVE ROBOT
LITERATURE SURVEY REPORT

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1. INTRODUCTION

1.1. Can we teach languages to a robot like us ?

Traditional way of learning in robots are known as machine learning. The process which gathers information around itself with sensors and feedbacks and robot trains it self with given sample data sets then interprets it from these data sets and makes estimations.

In Figure 1.1 it shows a different way of learning like our brain structure using neural networks.

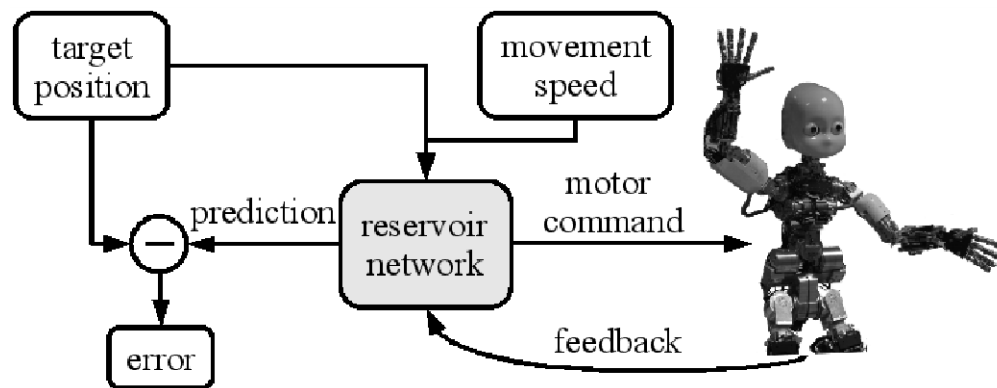


Figure 1.1. Neural Learning Method

2. RESEARCH AIM AND OBJECTIVES

2.1. What are we going to do ?

- To understand how cognitive model for robots work
- To demonstrate and measure cognitive methods
- To extend known words,sentences to many and be able to implement correctly

2.1.1. What We Will Use

We won't be able to use iCub robot to demonstrate and apply our work.We will use iCub simulation on YARP (Yet Another Robot Platform) to measure and implement our methods.

3. RESOURCES

1. THRIVE: Trust in Human Robot Interaction Via Embodiment, Professor Angelo Cangelosi Centre for Robotics and Neural Systems, Plymouth University, UK
2. The grounding of higher order concepts in action and language: A cognitive robotics model, Francesca Stramandinoli, Davide Marocco, Angelo Cangelosi
3. Towards the Grounding of Abstract Words: A Neural Network Model for Cognitive Robots, Francesca Stramandinoli, Angelo Cangelosi and Davide Marocco

REFERENCES

1. Figure.1.1 : <http://www.cor-lab.de/content/cognitive-robotics-and-learning>