

Abstract

As part of the Psyphine project, which aims to explore and study the interactions between man and machine as well as the attribution of intentions and consciousness to the latter. This report presents our contribution to the project, namely, the design of a system that gives a robotic prototype the ability to interact according to the different perceived changes in expression. The system consists of several phases, the first of which is the use of the oriented gradient histogram method combined with automatic learning to extract salient points that will then be used to calculate the characteristic vectors of the changes and finally perform clustering using the dynamic self-organizing map.