Automatic nonverbal behavior recognition and annotation tool

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Abstract. Human activity recognition can assist to solve various problems, including security, medical, robotics and daily life problems. Nonverbal behavior provides additional information which can be utilized to better solve these problems. To assess this behavior a tool for its automatic recognition and annotation is needed. To develop this tool various computer vision and knowledge representation techniques should be examined, optimized and implemented. In this work intermediate results towards creating such tool are presented. A general nonverbal behavior ontology is developed, a low dimensional feature vector computing human body and facial patterns is built; the performance of this tool is estimated and further research directions are suggested.

adfa, p. 1, 2011.