

Why and how to objectively evaluate medical gestures?

J. Cifuentes Quintero; R. Moreau; F. Prieto; M.T. Pham; T. Redarce

Abstract-

Junior physicians mainly learn during their observation in the operative room. The senior physicians evaluate them based on the same kind of observation. Knowledge transfer evaluation is thus done without quantitative methods and it mainly lies on a subjective assessment. In this paper, we present some recent techniques used to objectively evaluate medical gestures. The classical techniques used are Hidden Markov Models (HMM) or Dynamic Time Warping (DTW). Both techniques lies on the temporal analysis of the gestures. We proposed here a technique based on the arc length parametrization in order to analyze the gestures in space which is more appropriate because it gives information about the shape of the gestures independently of the chosen coordinate system.

Index Terms-

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