



Assessment methods for robot assisted neurorehabilitation and skills learning.

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Abstract

A growing awareness of the potential for robots to assist in skill learning and neurorehabilitation has led to several novel concepts for delivering training and therapies. To get from laboratory demonstrators and prototypes to the point where the concepts can be used in practice still requires significant additional effort, not least in the requirement to assess and measure the impact of any proposed solution. To be widely accepted a study should make valid measurements of the effect. In many cases these are subjective, costly and insensitive to the effect. Although this situation will not change, there is good reason to consider both inherent measurements via the machine as well as accepted measures of performance and recovery. This talk outlines the problems in measuring the impact of an intervention in stroke rehabilitation and in haptic skills training and explores the concept of providing more mechanical assessment techniques and ultimately the possibility of combining the assessment process with aspects of the intervention.

Recommended references with the talk

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- J. P. San Diego, A. Barrow, M. J. Cox and W. Harwin "PHANTOM prototype: exploring the potential for learning with multimodal features in dentistry" *Proceedings of the 10th international conference on Multimodal interfaces - IMCI* pp. 201 (2008)