WIRIO: AN HCI SYSTEM FOR USER VERIFICATION AND SYSTEM CUSTOMIZATION

Abstract

Human-centric computing is acquiring importance as modern era computing prefers customization for each user without regard for the standardization principles, the commonly used systems were based on. A bit of customization will also help the user to adapt pretty quickly to the computing environment. User based customization yields a better performance and an efficient use of computing resources also.

The project aims at capturing the human behaviour in a computing environment using continuous and comprehensive motion capturing and mouse-angle-metric calculations along with point-and-click patterns to yield a training data, which in turn will be used to train the support vector machine and then to a verification and rejection system. This classifications and pre-training data will verify whether the user is currently using the system or the impostor is. If it is the impostor intrusion is detected, a lock-out system is invoked to prevent user data being corrupted. The project also aims at building an efficient system for human-user interaction improvement through system customization as per user needs and providing a biometric system that complements the existing systems in providing user authentication.

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