User Experience Measurement of User Interfaces

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Abstract : Quantifying and measuring Quality of Experience (QoE) are important and difficult concerns in Human Computer Interaction (HCI). Quality of Service (QoS) and the actual User Interface (UI) of the application are both important contributors to the QoE of a user. This paper describes a framework that measures accurately the way a user uses the UI in order to model users' behaviours and profiles. It monitors the use of the mouse and use of UI elements with accurate time measurement. It does this in real-time and does so unobtrusively and efficiently allowing the user to work as normal with the application. This real-time accurate measurement of the user's interaction provides valuable data and insight into the use of the UI, and is also the basis for analysis of the user's QoE.