A REVIEW OF EYE MOVEMENT DETECTION SYSTEMS AND THEIR COMPARATIVE EFFECTIVENESS

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Abstract

This paper starts with a review of various eye movement detection methods. The study involves comparing them and deciding upon a suitable method. The eye movements have been successfully used in developing assistive technologies. The aim of this study is to identify a convenient method to use for obtaining the eye movements and thereupon find its usefulness in identifying normal and dyslexic children from their eye movements. The method decided upon should not cause any discomfort to the subject, at the same time should be simple, economical, and convenient. Electrooculograms are used to measure the resting potential of the eyes. Electro-oculograms have been proposed in literature for several applications. They are widely used in ophthalmic research and clinical laboratories because they provide a non-invasive method for recording full range of eye movements. Besides the clinical research and laboratories usage, EOG is also broadly used in developing assistive technologies. This paper presents the study conducted in order to obtain certain details from the subjects' eye movements which will further be used to develop a optimal classifier for the application considered.