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An eyewear to see "yourself" by detecting movement of eyes and body

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We have been developing the JINS MEME, an eyewear with a capability to detect eye and body movements. The horizontal and vertical EOG (electrooculogram) signals are measured and amplified with three metal dry electrodes placed near nasion and both sides of rhinion, of which positions correspond to the bridge and nose pads of eyewear, respectively. The user's mental states like drowsiness, sleepiness, fatigue, or interest to objects can be identified by the movements and blinking of the eyes extracted from the measured EOG. And the six-axis motion sensor (three-axis accelerometer and three-axis gyroscope) mounted in the eyewear measures the body motion. As the sensor located near the head is on the body axis, this eyewear is suitable to measure user's movement or shift of center of gravity during physical exercise with a high precision. The measured signals are used to extract various events of eye and body movement by the mounted MPU chip, or can be transmitted to the external devices via Bluetooth communication. This device can enable you to look into "yourself", as well as outer scenes. In this presentation, the outline of the eyewear is introduced and some possible applications are shown.

Eye Tracking in Advertising Effectiveness Research for Cultural Marketing

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The aim of this paper is to illustrate the contribution of eye tracking to advertising effectiveness research in the context of cultural marketing. Two contrasting advertisement designs (A) and (B) promoting the operetta event "A Night in Venice" were tested in cooperation with an Austrian open air festival organiser. 49 students were divided randomly into two groups for the purpose of eye movement measurement. Each group was exposed to one of the stimuli, embedded in a series of various other advertisements. Subsequently, the students were interviewed in order to assess recall and recognition. Gaze paths, viewing intensity over time and top-of-mind-recall were analysed and combined with a consumer acceptance questionnaire which was completed by 242 other respondents. Analysing visual product cognition and recall, the study's results suggested only a slight advantage of subject (A), which shows a close-up view of a woman's face behind a Venetian carnival mask, over subject (B). However, when presented in direct contrast with subject (B), subject (A) achieved distinctly better entry time and dwell time averages. Practical implications are discussed a) on graphical design in advertisements and b) on how to enhance consumer insight by combining eye tracking, interview and questionnaire results.