Electroencephalography Correlates of Memorability While Viewing Advertising Content

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Abstract : The problem of memorability of the advertising content is closely connected with the key issues of neuromarketing. The memorability of the advertising content contributes to the marketing effectiveness of the promoted product. Significant directions of studying the phenomenon of memorability are the memorability of the brand (detected through the memorability of the logo) and the memorability of the product offer (detected through the memorization of dynamic audiovisual advertising content - commercial). The aim of this work is to reveal the predictors of memorization of static and dynamic audiovisual stimuli (logos and commercials). An important direction of the research was revealing differences in psychophysiological correlates of memorability between static and dynamic audiovisual stimuli. We assumed that static and dynamic images are perceived in different ways and may have a difference in the memorization process. Objective methods of recording psychophysiological parameters while watching static and dynamic audiovisual materials are well suited to achieve the aim. The electroencephalography (EEG) method was performed with the aim of identifying correlates of the memorability of various stimuli in the electrical activity of the cerebral cortex. All stimuli (in the groups of statics and dynamics separately) were divided into 2 groups – remembered and not remembered based on the results of the questioning method. The questionnaires were filled out by survey participants after viewing the stimuli not immediately, but after a time interval (for detecting stimuli recorded through long-term memorization). Using statistical method, we developed the classifier (statistical model) that predicts which group (remembered or not remembered) stimuli gets, based on psychophysiological perception. The result of the statistical model was compared with the results of the questionnaire. Conclusions: Predictors of the memorability of static and dynamic stimuli have been identified, which allows prediction of which stimuli will have a higher probability of remembering. Further developments of this study will be the creation of stimulus memory model with the possibility of recognizing the stimulus as previously seen or new. Thus, in the process of remembering the stimulus, it is planned to take into account the stimulus recognition factor, which is one of the most important tasks for neuromarketing.

Keywords : memory, commercials, neuromarketing, EEG, branding