Conferences > 2015 E-Health and Bioengineer...

Emotional flow monitoring for health using FLOWSENSE: An experimental study to test the impact of antismoking campaigns

Publisher: IEEE

Eduardo Reis ; Patrícia Arriaga ; Octavian Postolache **All Authors**

Abstract:A multi-sensory system, entitled FLOWSENSE, was developed to monitor emotional responses in real time using both subjective (self-report) and objective (physiological) me... **View more**

Metadata

Abstract:
A multi-sensory system, entitled FLOWSENSE, was developed to monitor emotional responses in real time using both subjective (self-report) and objective (physiological) measures. To evaluate the program's reliability, an experiment was conducted using antismoking campaigns. Participants (N=92) were exposed to three advertisements of humor or of fear-appeals and asked to report continuously the emotions and the intensity they were feeling. Physiological responses were also collected by the system. Results showed statistically robust differences of emotions reported between the two different types of ads. Those exposed to the fear appeals ads reported significantly more often, with higher intensity and for longer periods of time fear and sadness, while the humor ads induced stronger positive emotions of happiness. The system was also able to localize fine grains of information which can help researchers understand and identify how health campaigns are influencing emotions and how this information may contribute to wider health outcomes.

Published in: 2015 E-Health and Bioengineering Conference (EHB)

Date of Conference: 19-21 Nov. 2015

Date Added to IEEE *Xplore*: 28 January 2016

ISBN Information:

INSPEC Accession Number: 15730751

DOI: 10.1109/EHB.2015.7391608

Publisher: IEEE

Conference Location: Iasi, Romania

Contents

It has been suggested for decades that persuasive messages evoke multiple emotions, but their influence has only recently started to be understood [1], [2]. According to [3], narratives are ideal in increasing message persuasiveness because they allow for a diverse number of emotions to be elicited, instead of just one emotion varying in intensity. The emotional experience that the audience might experience during exposure to a media message also tends to be marked by a series of emotional shifts which can be relevant to understand given their potential role in influencing decision-making processes, and changing beliefs, attitudes and behaviors [4]. However, the literature on why, how and what emotional shifts occur during exposure to persuasive messages is very limited. One reason is the lack of instruments to properly assess the emotional flow during exposure to persuasive messages [3], [5]. Many studies record physiological indicators of emotions (e.g. skin conductance, heart rate); however, the emotional the individuals subjectively experience is usually assessed after exposure to the message. Some programs have been developed to collect continuous ratings while the individual is exposed to audio or video files, such as EmuJoy [6] Feeltrace [7], or Carma [8], but those systems only allow individuals to report a maximum of two dimensions of emotions. To capture how the message affects the individual, an assessment of other potential specific emotions as they arise and change during exposure is needed. For this purpose, we developed a multi-sensory system, entitled FLOWSENSE, to capture a range of emotions and their correspondent intensities, allowing individuals to subjectively report their feelings through a touch panel HMI and appropriate software developed in LabVIEW. At the same time a biomedical module included in the system mades it caoable to acauire non-invasive nhvsioloaical resnonses.