

Press Release

Erlangen,
July 18, 2012

GfK EMO Scan Wins 2012 German Innovation in Market Research Award

A joint R&D project conducted by GfK Verein and the Fraunhofer Institute for Integrated Circuits IIS with support from the University of Geneva has seen the development of a piece of innovative software for measuring advertising effectiveness. The software, called EMO Scan, makes it possible to objectively assess study participants' emotional responses based on their facial expressions. Using the method requires no special hardware or operator training. The software has won the 2012 German Innovation in Market Research Award.

Measuring advertising effectiveness typically involves subsequent test person survey. However, this approach can produce spurious results. For instance, a participant may misremember their emotional response or be reluctant to admit to it. EMO Scan eliminates this problem. It can complement classic advertising research methods or, in some contexts, replace them altogether.

EMO Scan means that anyone who has a computer with Internet access and a webcam can participate in market research studies without even leaving their living room. As the participant watches a set of video sequences, EMO Scan automatically analyzes their facial movements to identify particular emotions. For instance, a smile indicates a positive emotional experience, whereas a negative one is often reflected in a frown. The software is able to detect such signals and simultaneously to interpret and measure the participant's emotional response to what they are seeing. All of this happens in real time.

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The method is based on an enhanced version of the SHORE™ face detection and analysis software developed by the Fraunhofer IIS in Erlangen, Germany. To enable identification of positive and negative emotional responses from facial expressions, video streams of each participant are matched to a series of face models showing positive and negative emotions. These face prototypes were created using a database comprising images of thousands of faces. The database contains metadata on each face, specifying how positive or negative its expression is. The face captured by the webcam is compared against face models at pixel level, with attention focused on areas relevant to emotion detection, such as the forehead, eyes and mouth. Optimized algorithms mean all images are processed in real time.

GfK EMO Scan makes it possible to gauge and assess the emotional impact of advertising more quickly and accurately. In addition, it helps researchers avoid causing stress to study participants or invading their privacy. This in turn will increase the willingness of the public to participate in market research studies and so yield a wealth of additional useful data.

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About Fraunhofer IIS

Founded in 1985 the Fraunhofer Institute for Integrated Circuits IIS in Erlangen, today with more than 750 staff members, ranks first among the Fraunhofer Institutes concerning headcount and revenues. As the main inventor of mp3 and universally credited with the co-development of AAC audio coding standard, Fraunhofer IIS has reached worldwide recognition. It provides research services on contract basis and technology licensing.

The research topics are: Audio and video source coding, multimedia realtime systems, digital radio broadcasting and digital cinema systems, integrated circuits and sensor systems, design automation, wireless, wired and optical networks, localization and navigation, imaging systems and nanofocus X-ray technology, high-speed cameras, medical sensor solutions and supply chain services.

The budget of more than 95 million Euro is mainly financed by projects from indus-

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try, the service sector and public authorities. Less than 25 percent of the budget is subsidized by federal and state funds.

GfK Verein

Founded in 1934, GfK Verein is a non-profit organization that facilitates and advances market research. It brings together about 600 companies and individuals. Part of its mission is to collaborate with research institutions to develop innovative research methods and support the training of market researchers. Another key objective is to investigate the social, economic and political structures fundamental to private consumption, track relevant developments and explore their implications for consumers. Findings are made available to members at no charge. GfK Verein is primary shareholder of the GfK SE.

www.gfk-verein.org

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