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Query Task Modulator: A Computerized Experimentation System to Study Media-Multitasking Behavior

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Abstract : In psychological research, laboratory experiments often face the trade-off issue between experimental control and mundane realism. With the advent of Immersive Virtual Environment Technology (IVET), this issue seems to be at bay. However there is a growing challenge within the IVET itself to design and develop system or software that captures the psychological phenomenon of everyday lives. One such phenomena that is of growing interest is 'media-multitasking' To aid laboratory researches in media-multitasking this paper introduces Query Task Modulator (QTM), a computerized experimentation system to study media-multitasking behavior in a controlled laboratory environment. The system provides a computerized platform in conducting an experiment for experimenters to study media-multitasking in which participants will be involved in a query task. The system has Instant Messaging, E-mail, and Voice Call features. The answers to queries are provided on the left hand side information panel where participants have to search for it and feed the information in the respective communication media blocks as fast as possible. On the whole the system will collect multitasking behavioral data. To analyze performance there is a separate output table that records the reaction times and responses of the participants individually. Information panel and all the media blocks will appear on a single window in order to ensure multi-modality feature in media-multitasking and equal emphasis on all the tasks (thus avoiding prioritization to a particular task). The paper discusses the development of QTM in the light of current techniques of studying media-multitasking.

Keywords : experimentation system, human performance, media-multitasking, query-task
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