One man's trash is another man's treasure: The need of open data and tools for research reproducibility in screen-based eye-tracking marketing experiments

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Abstract

Despite the existence of a wide range of eye-tracking experiments in marketing studies, deriving cross-study consensus remains a challenging task. In this article, we identify and discuss some common causes of inter-study variance and propose a set of tools for minimizing cross-study inconsistencies. More precisely, we discuss expected cross-study variances related to how eye-tracking equipment is used, while we also identify other sources of cross-study variance related to picking different eye-tracking variables, differences in the procedure of defining AOI, differences in the experimental protocol and data processing. Based on this review, and inspired by the best practices that have been followed in the computer vision discipline leading to substantial advancements in the past few years, we propose a set of practical and methodological tools that could be taken into consideration for eye-tracking data quality reassurance, maximizing individual study reproducibility and assist in reaching cross-study consensus.

Subject Areas: *Cognition, Consumer Behaviour, Information Processing*

Track: Consumer Behaviour