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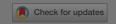► Predicting webpage aesthetics with heatm ....

Original Articles

Predicting webpage aesthetics with heatmap entropy

Zhenyu Gu ✉, Chenhao Jin, Danny Chang & Liqun Zhang

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ABSTRACT

This paper introduces a descriptive global index for eye-tracking data called heatmap entropy, or visual attention entropy (VAE), and discerns its predictive value for webpage aesthetics. VAE represents the chaos, or uncertainty, in the allocation of visual attention. In the experiment, we tracked and recorded 30 observers' initial landings on 40 web pages displayed for 3 seconds each. The results show that the VAE and aesthetic ratings of the web pages are negatively correlated (r=−0.54, P<0.001). A calibrated form of VAE, known as relative VAE (rVAE), has a more significant correlation with the aesthetic ratings (r=−0.65, P<0.0001). On its own, the rVAE can differentiate between

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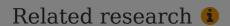## Acknowledgments

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Disclosure statement

No potential conflict of interest was reported by the authors.

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