

Modeling Visual Attention as a Key Factor in Visual Recognition and Quality of Experience

Abstract

Humans live in a complex visual world, and the human visual system adapts to these complexities by attentional selection: At any given moment, humans attend to only some visual information and ignore others, for purposes such as action control (e.g. turning left, not right), perception (e.g. discriminating the color of a traffic light, disregarding the color of the sky), and cognitive processing (e.g. keeping a telephone number in mind, ignoring the address). Because of the importance of visual attention for human cognition and perception, Cognitive Sciences aim to understand and model attentional selection. Recent progress in research, which combined experimental and computational methods, has led to comprehensive but oversimplified models of attention. The aim of the present research endeavor is therefore clear: We want to develop a realistic model of attention, based on ecological principles.

Keywords:

Vision, Attention, Saliency, Quality of Experience

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Further links about the involved persons and regarding the project you can find at

https://archiv.wwtf.at/programmes/cognitive_sciences/CS11-009