

CogSci'06 Workshop / What have eye movements told us so far, and what is next?

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Abstract

Tracking people's eye movements has allowed researchers to draw conclusions about cognitive processing based on the characteristics of people's gaze pattern. Furthermore, interactive eye tracking has allowed researchers to use eye movements as a form of communication between observers and interfaces. This workshop aims to gather researchers who use this tool and are interested in discussing the accomplishments made with eye tracking rather than the problems associated with it. An additional outcome of the workshop is to establish the future directions of eye-movement research.

Introduction

Eye tracking has long been used to investigate a variety of issues in cognitive science. This has been facilitated by the increasing availability, reliability and affordability of eye tracking systems. Eye movements are selective, accurate and sophisticated [1] and are highly dependent on cognitive motivations [2]. Thus, eye tracking provides sensitive, unconscious and replicable measure of ongoing cognitive processing. Eye tracking has been in a wide range of areas such as scene perception [3], visual search [4], reading [5], driving [6], speech-directed eye movements [7], and interactive eye tracking [8]. More recently, the use of eye tracking has been driven by commercial interest and used to assist in interface design and usability testing.

This workshop will examine a variety of findings in research using eye tracking, establish the key role of eye tracking in current research, and explore future developments in the use of this tool.

Aims and motivation

This workshop is aimed at gathering a number of eye tracking experts to discuss the achievements of using such a tool rather than exploring its weaknesses or any outstanding issues.

Prominent eye-movement researchers will lead the morning talks and share their experience on how eye tracking has provided answers in a variety of topics. The main goal of this workshop is to collectively review eye tracking research across many areas, identify its strengths and best practice and provide ideas for future research.

Workshop format

This will be a full day workshop divided into two sessions. In the morning session, keynote speakers will give a talk covering their work, experience and any ongoing and future projects involving eye tracking. The afternoon session will involve interactive group discussions. Position papers submitted by workshop participants will be hosted in the workshop website and submitted to an appropriate publication.

Intended audience

This workshop is open to researchers in all areas using eye-movement tracking. This includes cognitive psychologists and scientists, vision experts, human factors and ergonomics experts, computer scientists, interaction design researchers, advertising experts, etc.

Organizers and program committee

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