

Chapter 25

Conclusion

Eye tracking has sometimes been referred to as a technology in search of an application. Through the presentation of examples in this text, which is by no means exhaustive, it appears that many interesting applications have now been found. There is a good deal of opportunity for meaningful research.

It has also been said that eye trackers are difficult to set up, use, and that they are unwieldy and expensive. There may be some truth in this observation. Through ongoing improvements to the technology, eye trackers are becoming much easier to use. Video-based eye trackers in particular are becoming relatively inexpensive, quite accurate, and fairly easy to use. The current “Holy Grail” of eye tracking research is a calibration-free eye tracker. Several research centers are pursuing this goal. With the use of multiple video cameras and computer vision techniques, this goal may be achieved very soon.

Setup and design of supporting computer programs and methodologies for eye tracking studies may still require some expertise and thus may pose some challenges. It is hoped that this book has in some way been useful in addressing these challenges. The contents of the text primarily deal with the computational “back-end” methodological issues, e.g., program design for graphical and virtual reality displays and subsequent eye movement collection and analysis. Often a complete eye tracking study may require collaboration with members from several traditionally distinct disciplines. What has seemed to work in the classroom may also work in the field, the lab, or on campus, and that is the formation of interdisciplinary teams. The assembly of members from say psychology, marketing, industrial engineering, and computer science may be the most effective strategy for conducting effective eye tracking research.