

Mobile phone reading for old people

Tongji University, colloquially known as Tongji, is a comprehensive university located in Shanghai. Established in 1907 by the German government together with German physicians in Shanghai, Tongji is one of the oldest and most prestigious universities in China.

Tongji University is especially renowned for its engineering, business and architecture programs. Its civil engineering department has consistently ranked first in China for decades. The School of Economics and Management (Tongji SEM) is one of 74 business schools in the world being triple accredited by the European Quality Improvement System (EQUIS), the Association to Advance Collegiate Schools of Business (AACSB) and the Association of MBAs (AMBA). Tongji University is a member of the Yangtze Delta Universities Alliance and Asian-European Laotse Universities Network.

The customers we are talking about, are teacher Hou Guanhua and his master students from TONGJI University College of design and innovation.

PROBLEM DEFINITION

With the rapid development of mobile terminals and mobile internet, people's reading habits are quietly changing, mobile phone reading has become an indispensable part of people's life. Limited to vision, it's difficult for old people reading on mobile phones, there must be special requirements, e.g.

about the size and font of the text. So it's very significant to do research with psychological and ergonomic methods using Eye Tracking systems to help older people find the most suitable text font, text size and text gap.

WHY ERGONEERS?

The research group had first performed a pre-study by using another Eye Tracker before they decided to use the Ergoneers Dikablis Professional Eye Tracker. The reasons to switch to Dikablis Professional were the bad results in terms of clear field video, precision and natural head-holding while reading.

Afterwards the researchers continued the study mainly for three major points:

1. The text in a mobile phone is very small, so there is a strict requirement to the accuracy. The high accuracy and stability of Dikablis Professional insured that the small target object on a mobile phone can be caught very well.
2. The scene camera is adjustable, which is different from other Eye Tracking systems. The gaze point can be overlaid perfectly on the video.
3. Areas of interest can be analyzed automatically by using the patented marker technology by Ergoneers.

SOLUTION

The task for the test persons was reading articles with different text font, size and gap. With help of the Eye Tracking data we could find out facts about the task duration, reviews, fixation etc.

By doing this study we finally could find out, which text font, size and gap is the most appropriate for older people while reading on mobile phones.

The research results was presented by teacher Hou Guanhua on 23rd of November 2016 at the International Symposium on Human factors in Design. In addition to that he talked about the advantages of the Dikablis Professional Eye Tracking system."

"Dikablis Professional can support various kinds of studies about mobile phone reading. The great accuracy, marker technology and the adjustable scene camera are the highlight of the glasses. Ergoneers never stopped promoting the properties of products to insure the leading position in ergonomic research areas. "

ABOUT ERGONEERS

Ergoneers GmbH was founded in 2005 as a spin-off from the faculty of Ergonomics at the Technical University of Munich. Today the company has a worldwide presence through three main offices in Manching (Germany), Geretsried (Germany) and Portland (USA) and through global sales partners; serving the Transportation / Automotive, Market Research & Usability, Science and Sports / Biomechanics application areas.

In addition to development, manufacturing and distribution of measurement & analysis systems for behavioral research and optimization of human-machine-interaction, Ergoneers also offers comprehensive expertise in each phase of your study.

The product portfolio primarily comprises of the 360-degree solution - D-Lab; an extensive software platform for capturing and analyzing human behavior. With its different software modules you can synchronously measure and analyze eye tracking, data stream, video, audio, physiological and CAN-Bus data. With the Dikablis Eye-Tracking system, Ergoneers provides the best hardware for professional Eye Tracking studies in real or virtual environments.

