iTracking: An Intelligent Tutoring System

As technology use continues to increase in our society, new tools are developed to help us learn academic subjects or engage in professional training. Recently, researchers at Worcester Polytechnic Institute (WPI) have developed a novel technology, based on eye-tracking, to help direct an individual's knowledge acquisition within a digital environment. This patented software uses a device's built-in or external camera to track an individual's saccadic eye movements as they view a screen in front of them. After proper calibration, the eye-tracking software records exactly which portions of text and/or diagrams the learner/user attends to and for how long, and creates XML information based on these. These XML tags are then used to react in real time to provide feedback to direct a person's knowledge acquisition by instructing them where to focus on during training. This eye-tracking software can be used for training, licensure, and real time intervention in digital learning environments, driving simulators, flight simulators, airport security, courtroom security, as well as other markets.

Key Features

-Eye Tracking software that measures saccadic eye movements
-provides measures of one's knowledge acquisition processes
-reacts in real time to direct learners/users based on what they already know/key information they have missed

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