What does the project do?

Combine artificial intelligence machine learning and deep learning-based algorithms: object detection, face, and eye detection, pose estimation, and face mesh detection algorithms to be utilized both in the physical world along online educational tools. Our project will determine if the user is paying attention to the object of focus, such as the textbook. Is there a way to learn the potentially useful information that google provides more efficiently?

Why is the project useful?

The internet is a powerful tool with limitations; this project is to aid in eliminating those limitations. Technology provides a much more instant and overwhelming amount of information. Still, the potentially useful information will not be learned if a person has such a limited amount of time to absorb necessary information. Information is unlimited; time isn't. Hopefully, our project can aid people to increase focus on a particular assignment or task that the individual would like to complete. Is there a way to learn the potentially useful information that google provides more efficiently?

How can users get started with the project?

Access the project by cloning the repository from GitHub using this link: https://github.com/Sk031397/onlineAI. Upon cloning, click on the back-end folder and call python server.py. This will run the back-end server on the localhost 5,000. Once the back-end is running, open a new terminal and access the client folder. Next, NPM installs to install all the dependencies of the algorithms. Then, call an NPM start, which will run the application's front-end and open in a new web browser. Chrome is ideal due to its efficiency in detecting visual images and outputting the data.

The front-end and back-end will start running automatically. The individual will face the webcam to observe the bounding boxes that will capture the face, eyes, object, and entirety of the body visible in the frame. The individual can start to study or complete the assigned task. Detection connection and track connection, the parameters that the user can adjust, are known to decrease accuracy and precision when the parameter is higher because of less tracking. The lower the parameter is set, the more sensitive the data collection will be to increase accuracy and precision. However, the parameters are set in a default setting: 0.5. To shut down the entire system, the individual can click on the exit box in the top-right corner.

Where can users get help with your project?

The user can contact the original creators directly via email: sverhoff1@student.gsu.edu and skebe1@student.gsu.edu.

Who maintains and contributes to the project?

Creators: Sarah Verhoff and Sahid Kebe