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Eye's Data to control Mouse Clicks

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The Problem : To use Eye-Tracking Signals to Move and Click Mouse

- Who is affected? How are they affected? : The goal is to use data from eyes to control your mouse and do clicks.
- Why is this important/interesting to solve? What impact can it have if successful? This would make able people that have problems in doing motor tasks

Nowadays there is a large group of people who have difficulties in fine motor skills, in visual-motor coordination or in the movement itself. Whether it is due to a pathology such as Parkinson's disease or down syndrome, a medical condition such as osteoarthritis or arm amputation.

This has an impact on people's daily lives. Technological advances can facilitate the interaction of these people with computers. This would allow not only to facilitate the use of computers in this population, but also to improve the way they are assessed. Both accuracy, reaction time and error rate will be improved.

The Solution

- How does it address the problem?

Using artificial intelligence to predict mouse positions and clicks

- How successfully can it solve different aspects of the problem? What benefits and limitations are there?

Using this kind of data in people with motor disability could improve their life, and make able to evaluate cognitive processes without the influence of motor activity

The solution and How it works

- It takes photos from your eyes and clicks positions to predict the next mouse position
- It uses a deep learning model with eye's photos and clicks positions to predict and therefore control the mouse with your eye movements



Documentation

- <https://github.com/axcasas/neurotechx>
- <https://github.com/EmilioRecartZapata/NTX>