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User habit correction in typing

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# Abstract

The keyboard is the most prominent input device in the modern day, so it’s a massive surprise that the average user doesn’t put effort into improving their efficiency, and ergonomics when using the device. Most users rarely ever learn how to touch type, let alone how to type on the home row, this results in them being less efficient typists, and the increase movement caused through this means that they are more prone to be affected by repetitive strain injury in the future.

The aim of the software detailed in this project is to provide a training ground for typists to improve their typing efficiency whilst training them out of bad habits such as looking at the keyboard whilst typing. This shall be done using emergent technologies such as eye-tracking.

# Introduction

This project focuses on the creation of a typing education software as an aid to be used alongside home-row typing training. The software uses emergent hardware, such as eye-tracking, to identify when users are exhibiting common bad habits, such as looking at the keyboard during typing, and provide adequate prompts to inform them of their misdemeanour.

In this document the relevance of previous works is assessed, and

Expand this

Waffled too much

Home row typing – used typing software to provide a crutch to learn homerow typing to reduce RSI, and provide a healthy standard for the future of my typing

Saw a hole in the market where no other products provided physical restrictions on the student to prevent them from looking at the keyboard when typing, or over-reaching.

Taught myself home-row due to my own issues with RSI, and obsessive nature over being embarrassed of being a slow typist who looks at his own keyboard.

Taught myself my party trick of being able to look at other things whilst typing.

Teaching self provided an unreal standard now applied to other typists

In current situations people’s bad habits are reinforced whilst they learn to touch type. We haven’t got a structured typing education in the same way we have a structured education on learning how to write by hand. This paired with how most adults refuse to learn to home-row type as they have to start inefficiently before they can type more efficiently means most users will go their entire lives without ever learning to type home-row.

## Background and Motivation

The modern alphanumeric 104-key keyboard is one of the most commonly used Human Interface Devices in the world of technology. Despite this, most users rarely put any time into improving their typing efficiency or health. This results in a large portion of the userbase operating the device ineffectively. This can result in the users developing RSI, Carpal Tunnel, and in some cases Arthritis a lot earlier than would be expected. Because of this, the best way to ensure that users can maintain decent typing health throughout a career is to learn decent typing habits early in the career.

# Literature Review

Talk about RSI, and it’s causes

How touch/home-row typing affects RSI.

History on pittman, and late 20th century typewriting classes