

組別 Team ID：202208

專題屬性 Category：多功能網站系統（Website System Design）

專題名稱 Project：數伴學伴-情語錄

（Digital Learning Partner - Emotional AI System）



一、指導老師 Advisor：李金鳳老師（Prof. Chin-Feng, Lee）

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三、系統環境 System environment：

（一）軟體 Software：

作業系統 Operating System：Windows 11

語言 Programing language：Python、JavaScript、PHP、SQL、R
.HTML、CSS、

開發工具 Toolkits：Visual Studio Code、WordPress、RStudio
.Highcharts

（二）硬體 Hardware：

一台電腦 computer：Windows 10 or 11

一隻手機 smartphone：Android or iOS

四、簡介：

（一）系統簡述

數位學伴是教育部所推動的線上教育計畫，由大學生根據小學生的需求客製化教材，與小學伴們進行一對一視訊教學，達到共同成長的目標。

根據我們校方五年的成果觀察下來，招募宣傳及課程關懷是該計畫的兩大痛點，其一是因為我們發現許多大學生可能有實習打工或課程等需求，故每學期皆需要招募新血，來加入大學伴的行列。

其二是當上完課時，大小學伴都會填寫當日課程的教學日誌，而計畫老師也會查看這些日誌來了解學伴間的過程有無異狀，並配合上課時所錄製的影片作為檢核。

當計畫老師在日誌中發現學伴間可能存在問題，必須將當日上課片段仔細觀看才有可能找到問題點出在哪裡，這個過程對於計畫老師是非常費時費力的，以至於老師無法及時發現學伴間的問題並及時關懷。

所以針對招募宣傳，我們計畫架設網站讓大家可以進一步了解數位學伴，並配合我們創建的 Line 聊天機器人，提供使用者了解數位學伴問題的管道。

針對課程關懷，我們運用語音辨識及文字探勘的方法，將大小學伴間的課程影片及教學日誌做可視化情緒溫度計，增加計畫老師在觀看上課錄影及教學日誌的效率。

(二) 特色

- 響應式網頁：一頁式瀏覽，可同時適用不同裝置，使用者不需要下載 APP。
- 數值分析：蒐集近期大小學伴的資料，顯示相關類別，方便上層去做決策。
- 情緒分析：利用語音辨識及文字探勘，轉換課堂內容，使檢核動作更有效率。

五、Introduction：

Digital Learning Partner Project is an online education program promoted by the Ministry of Education. College students customize teaching materials according to the needs of primary school students, and conduct one-on-one video teaching with primary school friends to achieve the goal of common growth.

According to CYUT's five-year project results, recruitment publicity and curriculum care are the two major difficulties. Every time when the class is over, the university students need to fill in the teaching logs of the day's course, and the program teacher will also check these logs to see if there is any abnormality in the process between the schoolmates, and cooperate with the video recorded during the class as a check. When the project teacher finds in the log that there may be problems between the students, he must watch the class clips of the day carefully to find out where the problem lies. This process is very time-consuming and laborious for the plan teacher, so that the teacher cannot find it in time. Problems among students and timely care.

Therefore, for the recruitment and promotion, we plan to set up a website so that everyone can learn more about digital students, and cooperate with the Line chatbot we created to provide users with a channel to understand the problems of digital students.

For curriculum care, we use the methods of speech recognition and text exploration to make the course videos and teaching logs between the big and small schoolmates as visual emotional thermometers, so as to increase the efficiency of planning teachers in watching the class videos and teaching logs.

Features

- Responsive Web Design：One-page browsing can be applied to different devices at the same time, users don't need to download the APP
- Numerical Analysis：Collect the information of big and small schoolmates, display the categories, and facilitate the upper management to make decisions.
- Sentiment Analysis：Use speech recognition and text mining to transform classroom content and make inspections more efficient.