

EMERGING TRENDS

BY

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TEAM-WORKING & ORGANIZATION

- Office 365 - OneDrive Shared Documentation

	Steph	Sam	James	Aaron
Written Tasks	Methodologies Minute Meetings Change Management Secondary Research Evaluation of Sources Questioning Strategies Critical Evaluation Chatbot Questions	Aims & Objectives Gantt Chart Research Progress Data Types Secondary Research Reflection	Resources Deliverables Design Secondary Research Questioning Strategies Primary Research Analysing & Presenting Data Development	Scope Risks Stakeholders Quality Management Secondary Research Chatbot Questions
PowerPoint Tasks	Evaluation	Research Progress	Project Planning	Project Inception

We all worked on a shared folder

We had our own individual tasks which we worked on a shared word document with each task wrote in detail

We then split the PowerPoint presentation slides between us where we put what was necessary into each slide using the details from the word document

PROJECT RESOURCES

- Any x86 Windows/Mac/Linux PC
- Node.JS
- Discord.JS
- Visual Code
- Discord server for bot

Any operating system, most likely Windows. Discord is supported on all popular operating systems including the ones above.

Node JS is needed because Discord JS is a module of that which allows interaction with Discord API

Visual Studio code being a popular IDE, the team has had experience with it in the past, it provides a great environment for development.

The setup of a Discord server to host the Chatbot will be needed which is quite straight forward.

DESIGN

- Built on Discord.JS API
- Resulting in the use of Node.JS
- Use complex queries on messages sent to the bot
- These queries will detect patterns/key words in the messages sent
- In order to comply with GDPR:
 - No user messages will be saved
 - No user account details will be saved
 - Every interaction will remain private

We decided to build the bot using Discord.JS due to the vast online resources available while also having some prior knowledge.

As a result this uses Node.JS in order to actually run the bot's code.

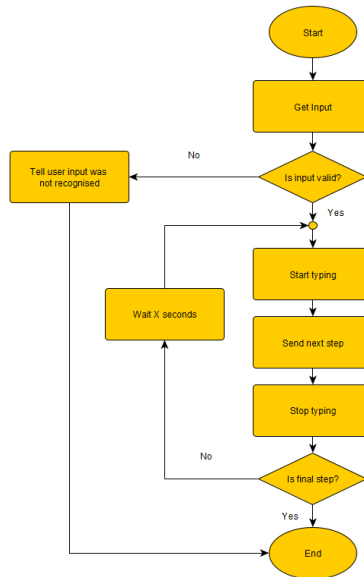
The advantage of this is that the bot can basically run on any computer thanks to Node.JS being ported to Linux, MacOS and Windows. There are even ways of getting Node.JS working on Android phones and tablets using a tool called Termux which is a Linux terminal and environment emulator.

The bot is built with complex queries to detect the course that people are trying to enroll on exists before providing assistance.

These queries are able to detect patterns and keywords in the messages which are fed to the bot via text files.

In order to comply with GDPR, we have made sure the bot does not store users messages, store any user details and keeps user interactions private.

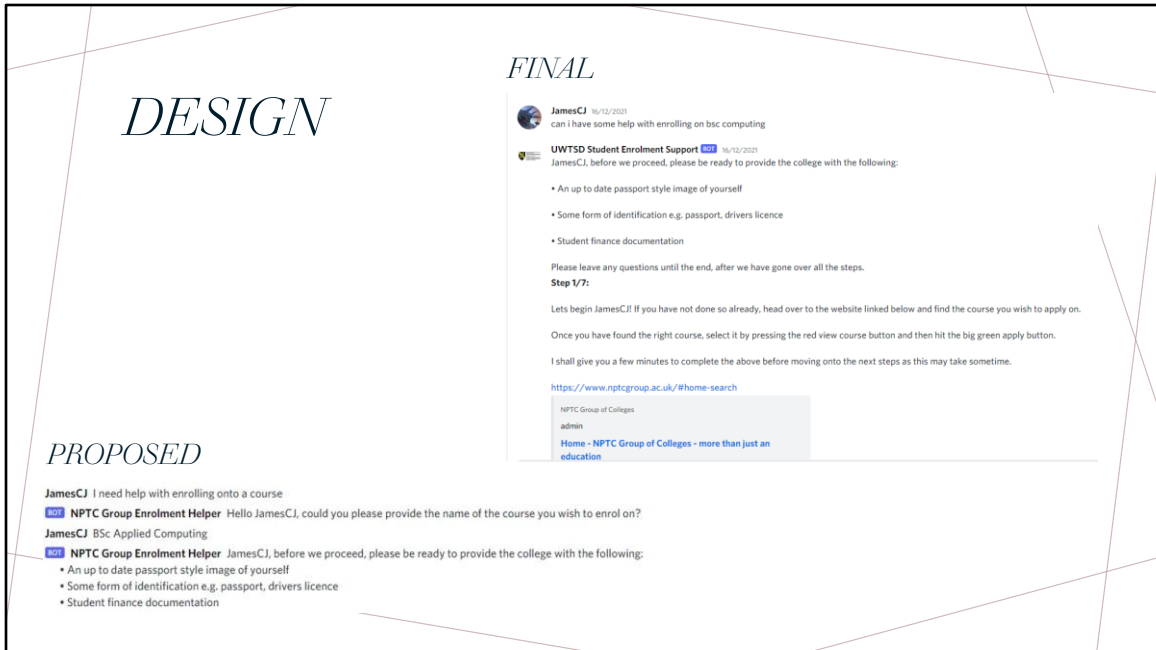
DESIGN



The above shows a simplified flowchart of the current bot design.

As you can see, it retrieves and checks what the user has inputted.

It then decides if it should move further with the enrolment steps or just send a message telling the user what has been inputted is not a recognised response.

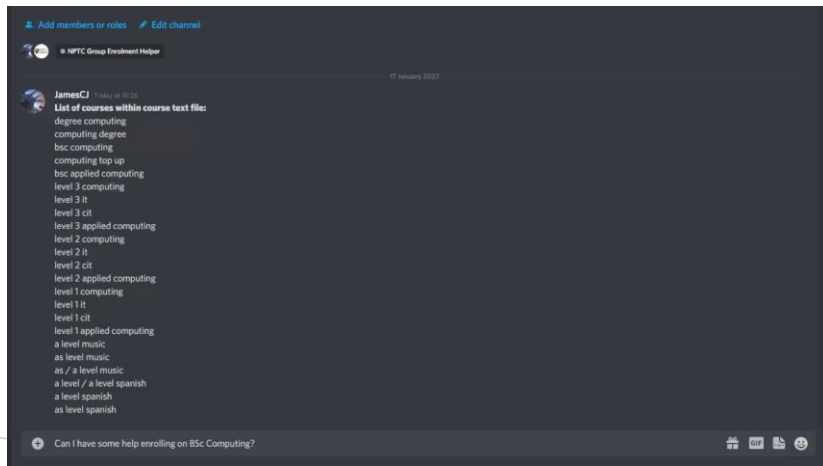


The above shows a quick snapshot of how the bot interacts with the user in Discord both in the proposed and final design.

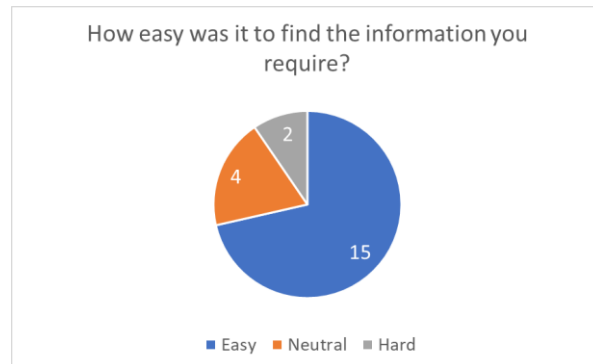
The final design has not change much but has been improved with the way responses are formatted and presented, for example, better spacing of content like lists.

The following demo will show this in more detail.

BOT DEMO



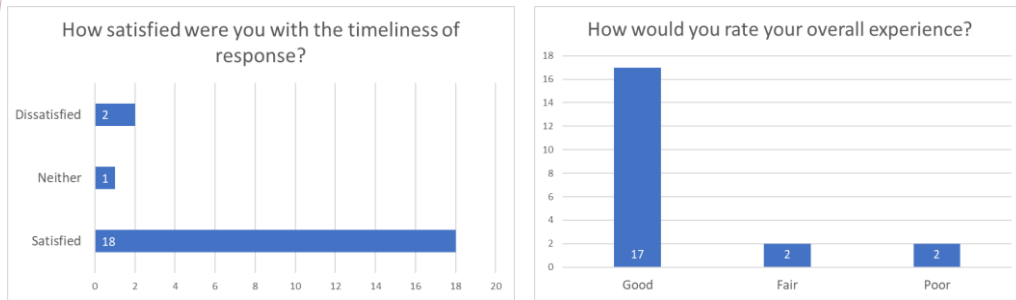
ANALYZING AND PRESENTING DATA



- 15 out of 21 found the bot easy to use
- 4 out of 21 found it neither easy nor difficult
- 2 out of 21 found it difficult

The most popular response was that some areas of information provided by the bot could provide more detail, such as the steps required to upload an image

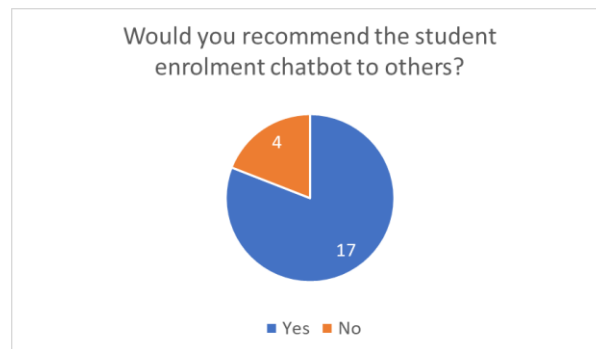
ANALYZING AND PRESENTING DATA



- 18 out of 21 were satisfied
- 1 out of 21 was neither satisfied nor dissatisfied
- 2 out of 21 were dissatisfied
- 17 out of 21 had a good experience
- 2 out of 21 had a fair experience
- 2 out of 21 had a poor experience

The majority of participants felt that the bot could be improved slightly. However, they did like how the bot acted like a human with the indication of them typing with a response

ANALYZING AND PRESENTING DATA



- 17 out of 21 would recommend the bot
- While 4 out of 21 would not

The bot was considered to be extremely straightforward to use, access, and obtain information by the majority of respondents, although it does require more refinement in areas such as the response details.

ANALYZING AND PRESENTING DATA



Slight adjustments needed



Human-like

- According to the findings, based on the little data, it can be presumed that the bot functions as planned, with slight adjustments needed to have it suitable for deployment, such as providing additional detail in areas where the user must upload documentation.
- Also from the findings, the bot appeared human-like to the user due to the dots displayed to indicate that the bot is typing a response.

REFLECTION



Primary and
secondary research



Costs



Satisfaction



Team members
contribution



Limitations

The primary and secondary research conducted, provided vital information on the effectiveness of our proposed technology.

The chatbot designed, implemented and tested has shown evidence of being an effective solution in cost cutting measures for the university due to a lesser strain on resources as students interact with an AI.

There is also evidence suggesting that students at the university were satisfied with the interactions between themselves and the chatbot. Students were also likely to recommend the chatbot to other students.

Fair team member contribution and the implementation of time management tools allowed effective communication between team members when issues occurred throughout the project such as an absence.

Due to limited time constraints, only one form of primary research was conducted throughout the project research (questionnaire). If time permitted, another form of primary research such as interviews or focus groups could have been implemented to provide further detail to either dispute or confirm our previous findings.



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ANY QUESTIONS?