Bridging Communication Gaps Across Campus through Natural-Language Processing



Team DRAF[t]:

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Mental health among college students is a huge concern: it influences their time in college and can have lasting health consequences throughout their lives. Lost in ever-growing courses on campus with escalating demands, students are rendered speechless and become more and more disconnected from their professors, resources, and support systems.

Our project seeks to tackle this issue with two approaches which work together to form a positive feedback loop of change on campus.



Connecting Students and Course Staff

A source of strife and anguish for CS students is the office hours environment, which now mainly serves as a venue for debugging help rather than a place to connect with professors. In some of the largest classes on campus, students wait for hours to speak with course staff for mere moments. Our project seeks to intervene here and make office hours more efficient through clustering students with similar issues, thereby enhancing peer networks in courses. This system also aggregates student issues and distills this data into an actionable report for professors through sentiment analysis, giving instructors more consistent insights into their students' state of mind. In development of this arm, we have leveraged our status as affected students with technical and design backgrounds and our peer networks for key user research, as well as formed imperative partnerships with administration and instructors alike.



We have developed a chatbot component as a digital tool designed to help facilitate students finding resources as well as getting frequently asked guestions answered in a timely manner. The goal is to find the appropriate language of users to help facilitate students navigate the resources the school is already offering. Another component of the chatbot is that it can possibly provide real-time feedback on resources that students may be interested in like office hours and wait times in administrative offices. Because students have expressed their concerns about an alienating environment, we can potentially design this digital tool to connect others that have similar questions/ concerns so that they may connect and help each other out; this would require our team to find key attributes and themes of students so that we may connect these individuals.