IMPROVING DOCTOR-PATIENT RELATIONSHIPS THROUGH EFFICIENT COM-MUNICATION

USING THE COVID-19 PANDEMIC TO ADDRESS THE AMERICAN EPISTEMIC AND LEGITIMATION CRISES

An Undergraduate Thesis Portfolio Presented to the Faculty of the School of Engineering and Applied Science In Partial Fulfillment of the Requirements for the Degree Bachelor of Science in Computer Science

> By Rod Aryan

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SOCIOTECHNICAL SYNTHESIS

Consequences of the recent COVID-19 pandemic have highlighted a severe breakdown in the division of epistemic labor within society, leading to a legitimation crisis among the United States elected officials. The technical research report, which was chosen for its impact and relevance to healthcare during the pandemic, dissects the epistemic division of labor by working to restore trust in health experts. Tightly coupled with the technical report, the STS research paper focuses on how a common lack of trust in experts and elected officials fostered an environment that formed the current epistemic and legitimation crisis plaguing the American public. In a society with a healthy amount of epistemic trust, it is preferred for the general knowledge levels of the public to be as high as possible. When there is little overlap between beliefs and truths there is a much larger chance that an epistemic crisis occurs, and consequences from disasters such as the COVID-19 pandemics are exacerbated.

The CS capstone includes summarizing and analyzing a work experience where the work done contributed to a project that made a substantial difference in the workplace. The capstone highlights the contributions to Meddbase, a medical management company, specializing in improving the usability of the online framework in order to improve doctor-patient relations. Specifics of the work done at Meddbase included aiding existing team members in their maintenance of the software, in addition to working on ideas that aimed to improve how information was relayed on the management system. It was the team's belief that by upgrading the current communication channels doctors had access to, we could increase patient satisfaction with their physicians. During my work experience, there were several challenges throughout the portal's improvement, most of them involving staying within the means of what could be achieved just by modifying the current system. For a variety of reasons, most of which were attributed mainly to cost and labor, features such as live chat functionality was discussed but never implemented. To come up with solutions to the project, the team at Meddbase followed a rough process which first required ideas to be supported with data from customer feedback or the quality assurance team. As a result of the work completed by the Meddbase team, the Meddbase software can now send related FAQs to patients, as well as provide the option for the patient to respond to their results with questions. In the future, the Meddbase system can work to provide patients with relevant data that can ease their minds about a medical crisis they may be enduring. The use of trustworthy sources along with an emphasis on providing information regarding the success rates of a specific treatment can foster trust in the doctor-patient relationship.

The process of improving the relationship between experts and the public can be based on and observed through the Social Construction of Technology STS framework introduced by Pinch and Bijker. Viewing the COVID-19 pandemic as a version of an epistemological crisis continues to raise issues within the American system, both originating from a lack of general knowledge in the public and a collapse of institutional grounding of knowledge dissemination. The only distinct difference between the two major issues is the effects and spread of their consequences, as the former affects each citizen individually while the latter can affect large amounts of the population that still place their trust in the country's institutions. One of the only ways to prevent these crises from worsening in the near future is through a reexamination of the needs of targeted social groups during the engineering process. This change can bring a much-needed emphasis on not only the relationships between social groups and the information provided by experts but the relationship between social groups as well. By working to inform the public with knowledge instead of scaring people with large numbers and raw data, the relationship between America's institutions and its people can be restored.

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Technical advisor: Daniel Graham, Department of Computer Science

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STS advisor: Catherine D. Baritaud, Department of Engineering and Society

PROSPECTUS

Technical advisor: Daniel Graham, Department of Computer Science;

STS advisor: Peter Norton, Department of Engineering and Society