Privacy in Anonymous Social Media
(Technical Report)

The Impact of the da Vinci Surgical System in the Medical and Medical Education Fields and Whether It's Worth the Investment
(STS Research Paper)

An Undergraduate Thesis

Presented to the Faculty of the School of Engineering and Applied Science
University of Virginia • Charlottesville, Virginia

In Fulfillment of the Requirements for the Degree
Bachelor of Science, School of Engineering

Lucas Kim
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Department of Computer Science

Table of Contents

Sociotechnical Synthesis

Technical Report Title

STS Research Paper Title

Thesis Prospect

Sociotechnical Synthesis

My technical project will be focused on improving the anonymity of people's online social media profiles. The technical portion will be developing a tool that indicates how much personal information individuals give away in an anonymous social media post. We hope to provide a baseline for how much information anonymous social media users are giving in both a specific base and their "profile": the culmination of all their posted information. The technical subject of the STS prospectus and the technical topic for the Dept. of Computer Science is not related.

My STS research will be focused on the effective use of the da Vinci Surgical System and whether or not it's worth the money used to invest in its development and integration into the medical field. The da Vinci Surgical System allows the surgeon to complete tasks within a surgery that exceed human capabilities, such as being able to rotate the surgical system's wrist like arms in ways the human wrist cannot. However, the problem lies within its cost and learning how to use the machine itself. This robot is a huge advancement in the medical technology field, but it can also cause changes to medical education; if it takes off, more surgeons must be equipped to use the system. My research will discuss the comparison of robotic-assisted surgeries and hands-on surgeries while also providing details on mechanical malfunction occurrences during surgery and how often they occur. I will also discuss the potential changes in the medical education system that the robot would cause if it were to become a staple in the medical field. In my conclusion, I hope to expand on the overall pros and/or cons of implementing the da Vinci Surgical System into the medical field and if it's worth continuing its development.