

## **Thesis Project Portfolio**

**Amdocs Internship: Creating Dashboards, Alerts, and Reports for C Spire**

(Technical Report)

**The Current State of Data Privacy**

(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

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## **Sociotechnical Synthesis**

This capstone research addresses the current state of data privacy and the need for stronger regulations and enforcement to protect user data. The research aims to analyze the human and social dimensions of data privacy by using actor-network theory to understand the complexity of the telecommunications "black box" and the multiple actors involved in regulating and enforcing data privacy. Considering the human and social dimensions of data privacy is essential because it involves users' trust and confidence in the companies that handle their personal data. Without addressing these dimensions, regulations and enforcement may not be effective in protecting user data. Actor-network theory is the main theory that applies to the problem-solving approach of the capstone research. This theory provides a lens to understand the relationships and interactions among the different actors involved in data privacy. The STS research will use a qualitative method, specifically case studies, to analyze how different actors involved in data privacy interact and how regulations and enforcement are being implemented. Through the STS research, we expect to find that data privacy is a complex issue that involves multiple actors, and the lack of user trust and confidence is a significant challenge for companies and policymakers. We also expect to find that while there are efforts to improve regulations and enforcement, there is still room for improvement. The implications of the capstone project and the STS research are significant. By understanding the human and social dimensions of data privacy, policymakers and companies can improve regulations and enforcement to protect user data and build trust with users. Additionally, the research can contribute to a better understanding of the complexity of data privacy and the need for a multi-actor approach to address the issue.