

Thesis Project Portfolio

Measuring Airport Similarity to Create a Towering Decision Aid

(Technical Report)

The Rise of Flight Shaming in Europe: How Peer Pressure is Reshaping Transportation

(STS Research Paper)

An Undergraduate Thesis

Presented to the Faculty of the School of Engineering and Applied Science

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In Fulfillment of the Requirements for the Degree

Bachelor of Science, School of Engineering

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Table of Contents

Sociotechnical Synthesis

Measuring Airport Similarity to Create a Towering Decision Aid

The Rise of Flight Shaming in Europe: How Peer Pressure is Reshaping Transportation

Prospectus

Sociotechnical Synthesis

Airports are an important part of our modern infrastructure. They are crucial to transportation and our economy alike. Because of this their functions must be constantly updated and used in a responsible way. My STS analysis focused on how we as a society need to become more responsible fliers if we wish to reduce the impact aviation has on the environment. It specifically looks into how social movements like “flight shaming” could be more effective at reducing emissions than potential technological advances.

My technical project focuses on how data analysis can be used to help airports decide if they wish to expand and build a tower. Building a tower can bring safety, economic, and efficiency benefits to an airport. Deciding to build a tower is an expensive process. The tool my team developed offers a way to facilitate researching if a potential airport is similar to towered airports. This process will help save both time and money in the towering research process.