DATA SCIENCE, DASHBOARDS, AND THE WAY IT WORKS WITH STATISTICS

by

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Here is my abstract. *(350 word limit)*

DEDICATION

Dedicated to...

ACKNOWLEDGMENTS

Thank you to all my people!

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UNL thesis fields

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Introduction

Statisticians use graphs in almost every stage of their work: we create charts when we get new data, to explore what we have and identify potential problems and opportunities. We fit models based on relationships between variables which are often identified visually. We identify problems with those models based on residual plots and other visual diagnostics. When our modeling work has been completed, we present our results to interested parties using visual displays, because non-statisticians often find it easier to understand data and models through an intuitive visual medium rather than through the mathematical formulae which underlie the statistical work.

Given the wide range of uses for graphs and visual data displays in statistical modeling, it is unsurprising that some graphs are more useful for specific applications such as exploratory analysis, and are unsuitable for other applications, such as presentation to an outside group. In addition, we know that ... cite sources ... not all visual displays have equal perceptual value. The best graphics are designed to account for both the features of the dataset and the features of the intended audience. Some design constraints stem from limitations of the human perceptual system and are common to most poten-