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The Effects of Visual and Design Features on the Perception of Correlation in Scatterplots

A thesis submitted to the University of Manchester for the degree of
Doctor of Philosophy
in the Faculty of Science and Engineering

2024

Gabriel Strain
Department of Computer Science

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Abstract

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Chapter 1

Introduction

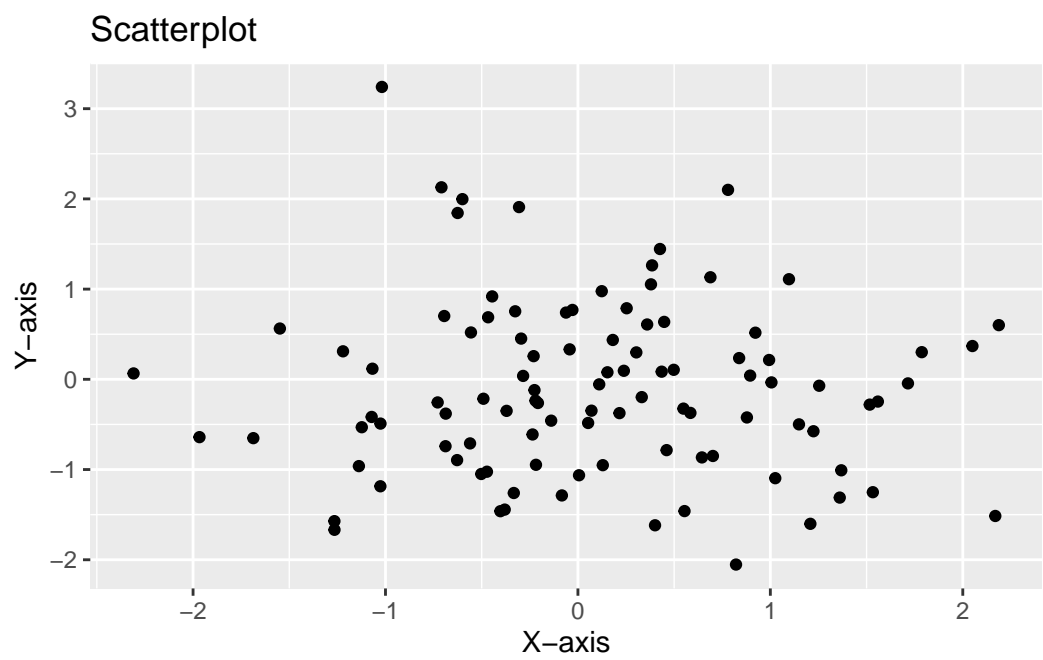


Figure 1.1. test plot

Chapter 2

Literature Review

Chapter 3

General Methodology

Chapter 4

Adjusting the Opacities of Scatterplot

Points Can Affect Correlation Estimates

Chapter 5

Adjusting the Sizes of Scatterplot Points Can Correct for a Historic Correlation Underestimation Bias

Chapter 6

Interactions of Opacity and Size Adjustments

Chapter 7

Scatterplots Optimised for Correlation

Perception Affect Beliefs About

Correlations and Attitudes Towards

Trivial Topics

Chapter 8

Conclusion

Appendices

Appendix A

First appendix

A.1 Section in Appendix

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