Pre-submission Report

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Overview of the thesis

Background and motivation

Research questions

The primary goal of this research is to clearly define uncertainty visualisations and establish how they differ from other statistical graphics. This work is broken into three specific projects.

1. Survey the uncertainty visualisation literature and establish the motivations behind the field and define what makes a successful uncertainty visualisation.
2. Develop software that makes uncertainty visualisation intuitive and accessible and properly integrates uncertainty into the grammar of graphics framework.
3. Establish what make an effective uncertainty visualisation through user studies that evaluate plots using study design that was developed specifically for uncertainty visualisation.

Current research outcomes

Noisy work

ggdibbler

remaining tasks

Thesis Structure

The thesis will be structured as follows.

1. Chapter One provides an overview of uncertainty visualisation, the current software options
2. Chapter Two
3. Chapter Three
4. Chapter Four
5. Chapter Five

Timeline

Date	Description
January 2025	Write most of `ggdibbler`. Have primary functions working and passing tests
February 2025	Polishing package functions as well as creating/cleaning the package example data that will also be used in the experiment.
March 2025	Submit package to CRAN and start writing the package paper
April 2025	Finish package paper and submit to software Journal
May 2025	Pre-submission Milestone
July 2025	Present `ggdibbler` at UseR! 2025 & start designing (simple) user experiment
August 2025	Make shiny app, pilot testing, revise, and data collection for experiment
September-October 2025	Write paper for user experiment and submit
November 2025	Combine three papers into thesis and add introduction and conclusion for final submission
December 2025	Attend (+ present) at ASC

Quarto enables you to weave together content and executable code into a finished document. To learn more about Quarto see https://quarto.org.

Running Code

When you click the **Render** button a document will be generated that includes both content and the output of embedded code. You can embed code like this:

```
1 + 1
```

```
[1] 2
```

You can add options to executable code like this

```
[1] 4
```

The `echo: false` option disables the printing of code (only output is displayed).