

Motivation

Most survey platforms use **GUIs** or **spreadsheets** to define survey content. This approach limits:

- Reproducibility
- Version Control
- Collaboration

Few open-source platforms exist, resulting in:

- Limited Data Control
- High Costs
- Opaque Source Code

Introducing surveydown

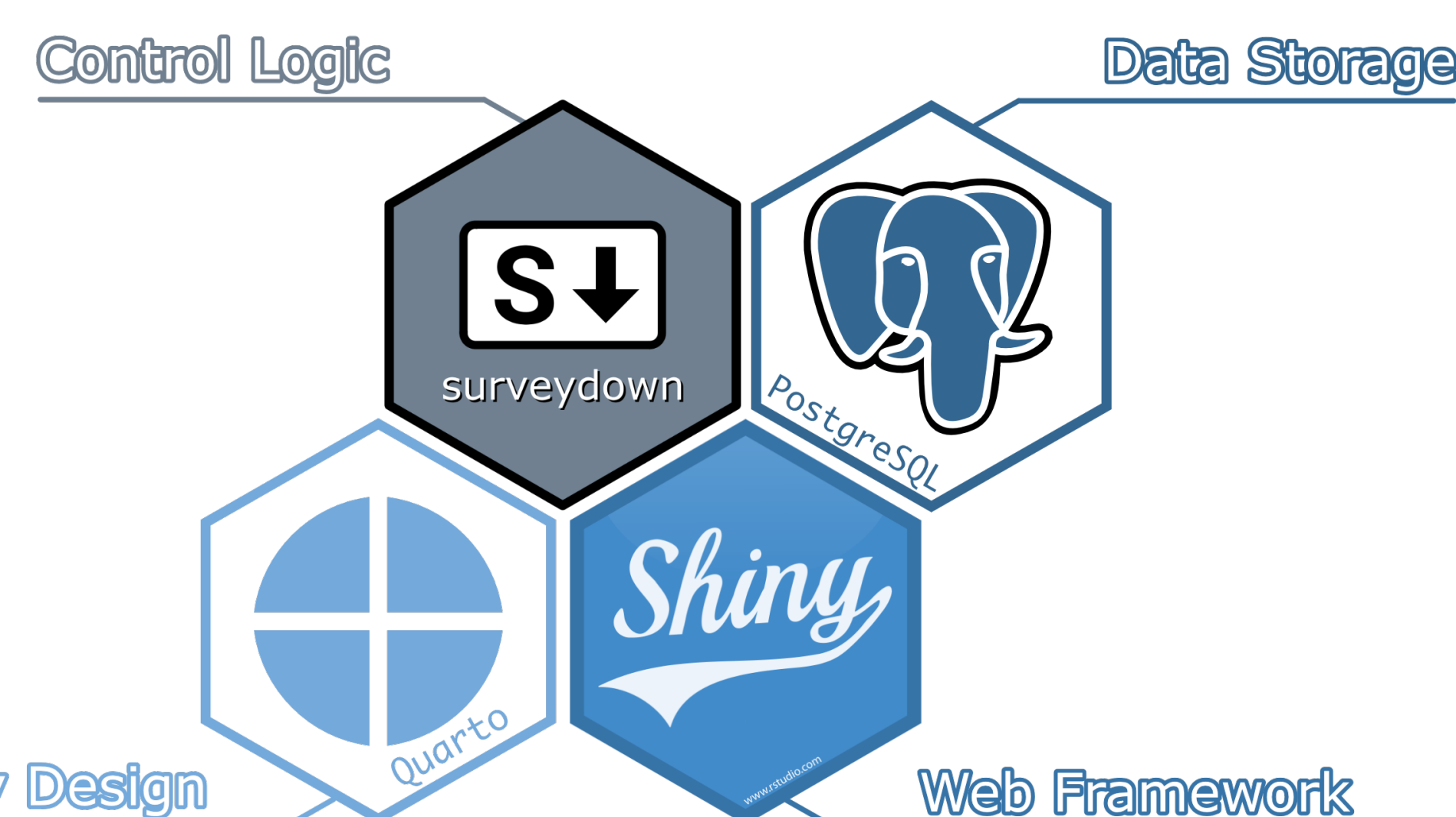


A flexible, open-source platform for making programmable, markdown-based surveys

Features:

1. **Open-Source** with R, Shiny, Quarto, and PostgreSQL
2. **Reproducibility** from Code
3. **Programmable** Interactivity via Shiny

Technologies



- Design survey as **Quarto** document with markdown and R code.
- Render into **Shiny** app.
- Store response data in **PostgreSQL** database.
- R package **surveydown** provides control logic.

Example Survey

survey.qmd

```

{r}
library(surveydown)

::: {sd_page id=welcome}
# Welcome to our survey!

{r}
sd_question(
  type = "mc",
  id = "penguins",
  label = "What's your favorite penguin?",
  option = c(
    "Adélie" = "adelie",
    "Chinstrap" = "chinstrap",
    "Gentoo" = "gentoo"
  )
)
sd_next()
:::

::: {sd_page id=end}
This is the last page of the survey.

{r}
sd_close()
:::

```

Welcome Page

app.R

```

db <- sd_db_connect()
ui <- sd_ui()
server <- function(...) {
  sd_server(db = db)
}
shiny::shinyApp(
  ui = ui, server = server
)

```

End Page

Comparison with Existing Platforms

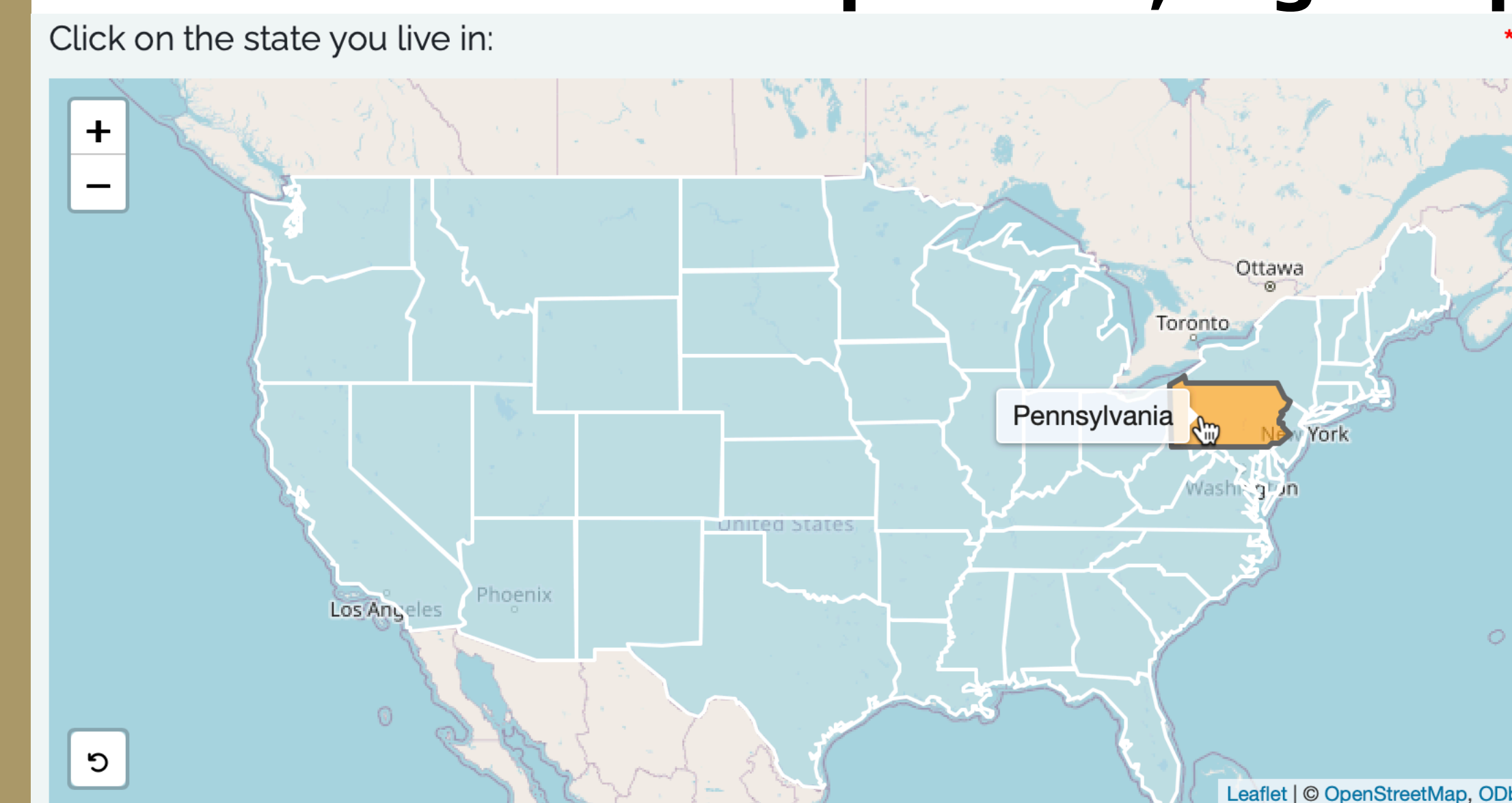
Platform	User Interface	Reproducible	Cost	Open Source	Data Control	Programmable
Google Forms	GUI	☐	Free	☐	☐	☐
REDCap	GUI	☐	Free/Paid	☐	■	■
Qualtrics	GUI	☐	Paid	☐	☐	■
Sawtooth	GUI	☐	Paid	☐	■	■
CASIC Builder	GUI	☐	Paid	☐	■	☐
SurveyCTO	GUI	■	Paid	☐	■	■
QDS	GUI	☐	Paid	☐	☐	☐
LimeSurvey	GUI	■	Free/Paid	■	☐	■
Open Data Kit	XLSForms	■	Free/Paid	■	■	■
oTree	GUI, Python	■	Free/Paid	■	■	■
SurveyJS	GUI, JavaScript	■	Free/Paid	■	■	■
formr	XLSForms, markdown, R	■	Free	■	■	■
shinysurveys	R, CSV	■	Free	■	■	☐
surveydown	markdown (Quarto), R	■	Free	■	■	■

Legend: ■= Yes, ▣= Partially, ☐= No

Features

- All-in-one platform for:
 - survey designers
 - survey respondents
 - data analyzers
- Support for 13 question types.
- Automatic time stamps recording.
- Require question responses.
- Comprehensive restoration via cookies.
- URL parameters and redirection.
- Customizable language for system messages.
- Bootstrap themes and customizable SCSS themes.
- Custom interactive question.

Custom interactive question, e.g. map



You live in: Pennsylvania

For more details of features, question types, and templates, visit:

surveydown.org

