



# *Getting started with surveydown*

# Meet your instructor!



## John Helveston, Ph.D.

Associate Professor, Engineering Management & Systems Engineering

- 2016-2018 Postdoc at [Institute for Sustainable Energy](#), Boston University
- 2016 PhD in Engineering & Public Policy at Carnegie Mellon University
- 2015 MS in Engineering & Public Policy at Carnegie Mellon University
- 2010 BS in Engineering Science & Mechanics at Virginia Tech
- Website: [www.jhelvy.com](http://www.jhelvy.com)

# Meet the dev team!



**John Paul Helveston**



**Pingfan Hu**



**Bogdan Bunea**

# Before we start...

1. Be sure to **install everything**
2. Download the **examples**

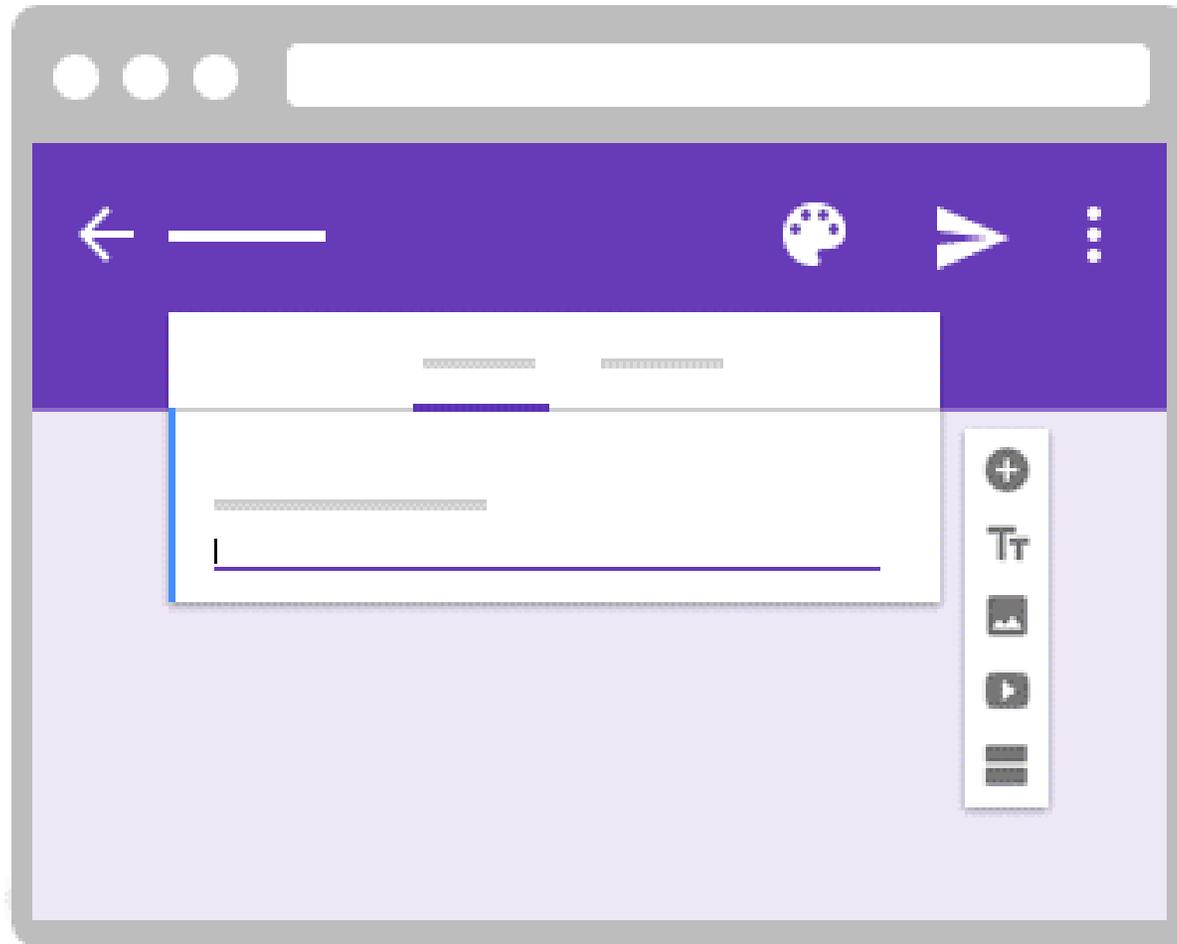
# *Getting started with surveydown*

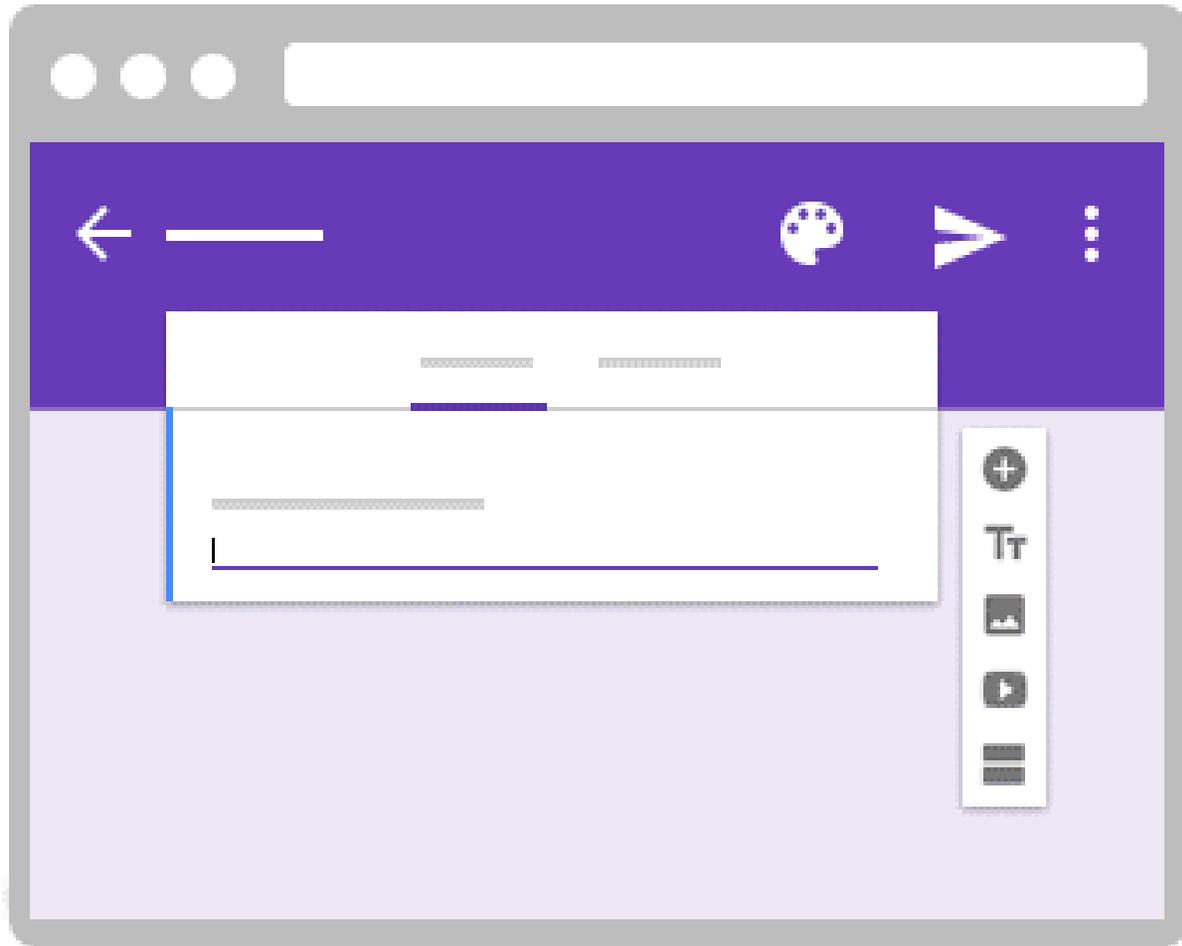
1. What is surveydown?
2. surveydown basics
3. Building your first surveydown survey!
4. Adding survey content

# *Getting started with surveydown*

1. **What is surveydown?**
2. surveydown basics
3. Building your first surveydown survey!
4. Adding survey content

# Typical experience making a survey





✗ Reproducible

✗ Data Control

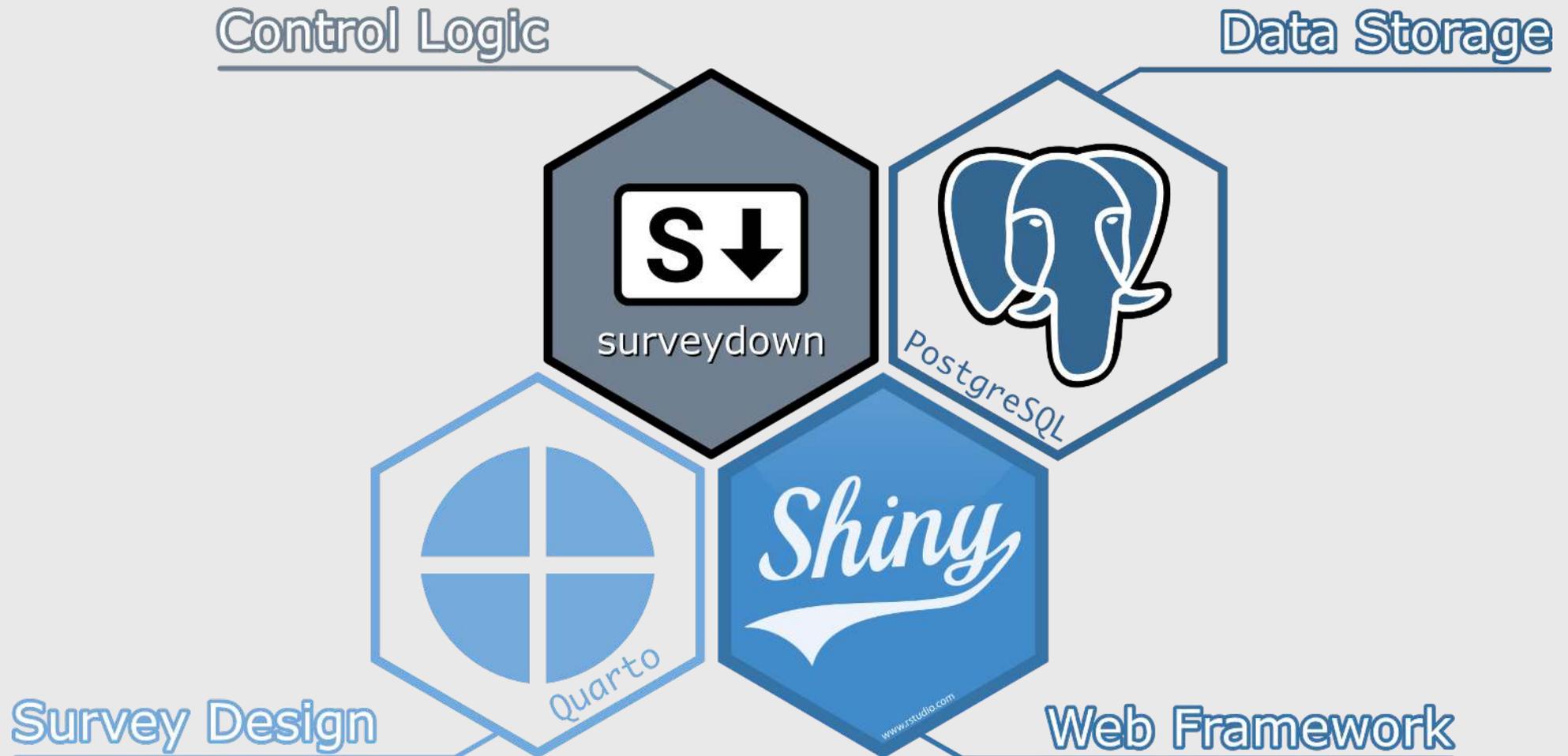
⚠ Free to Use

Open Source

Easy Collaboration

⚠ Feature Packed

# Introducing surveydown



# *Getting started with surveydown*

1. What is surveydown?
2. **surveydown basics**
3. Building your first surveydown survey!
4. Adding survey content

# Components

survey.qmd

A **Quarto doc** defining the main survey content (pages, text, images, questions, etc).

app.R

An **R script** defining the survey Shiny app. It sets up the database and server, and launches the survey.

# survey.qmd

```
---
format: html
echo: false
warning: false
---

```{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()
```

:::
```

## YAML Header

## Load `surveydown` package

```
---
format: html
echo: false
warning: false
---

```{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()

:::
```

```

----
format: html
echo: false
warning: false
----

```{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()
```

:::

```

## Define pages using "fences"

```
::: {.sd_page id=page_id}
```

Page content

```
:::
```

```
----  
format: html  
echo: false  
warning: false  
----  
  
```{r}  
library(surveydown)  
```\n
```

```
 ::: {.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"  
  )  
)  
```\n
```

```
sd_next()  
```\n
```

```
 :::
```

```
 ::: {.sd_page id=end}
```

```
This is the last page of the survey.
```

```
```{r}  
sd_close()  
```\n
```

```
 :::
```

Use markdown for page content

Use `sd_question()` in code chunk for survey questions

Use `sd_next()` for next button

# app.R

```
library(surveydown)

# Connects to database
db <- sd_db_connect()

# Main UI
ui <- sd_ui()

server <- function(input, output, session) {
  # Main server
  sd_server(db)
}

shiny::shinyApp(
  ui = ui,
  server = server
)
```

```
library(surveydown)

# Connects to database
db <- sd_db_connect()

# Main UI
ui <- sd_ui()

server <- function(input, output, session) {
  # Main server
  sd_server(db)
}

shiny::shinyApp(
  ui = ui,
  server = server
)
```

Load package

Connect to database

Make standard UI

Run surveydown server

# *Getting started with surveydown*

1. What is surveydown?
2. surveydown basics
3. **Building your first surveydown survey!**
4. Adding survey content

05:00

# Your turn - start with a template

**Step 1:** In R console, run:

```
surveydown::sd_create_survey()
```

*Optional:* Specify a **path** and / or a **template**:

```
surveydown::sd_create_survey(  
  template = "question_types",  
  path      = "path/to/folder"  
)
```

**Step 2:** In your IDE, open the **app.R** file, click "Run App", or in R console run:

```
shiny::runApp('app.R')
```

# *Getting started with surveydown*

1. What is surveydown?
2. surveydown basics
3. Building your first surveydown survey!
4. **Adding survey content**

# YAML Header

The YAML header is at the top of the `.qmd` file:

```
---  
format: html  
echo: false  
warning: false  
---
```

# Change the survey theme

Pick a different [bootswatch theme](#) with the [theme](#) key:

```
---  
format: html  
echo: false  
warning: false  
theme: united  
---
```

Make a custom theme with a [custom.scss](#) file

```
---  
format: html  
echo: false  
warning: false  
theme: [united, custom.scss]  
---
```

# Progress bar

You can modify the survey progress bar with the `barcolor` and `barposition` keys:

Change to any color with `barcolor`:

```
---  
format: html  
echo: false  
warning: false  
barcolor: #768692  
---
```

Change position: `top`, `bottom`, or `none`

```
---  
format: html  
echo: false  
warning: false  
barposition: bottom  
---
```

# Inserting pages

Insert new pages with `:::` symbols, like this

```
::: {.sd_page id=page_id}  
Page content here  
:::
```

Insert next buttons with the `sd_next()` function, like this (blank goes to next page):

```
```${r}  
sd_next('next_page_id')  
```
```

# Inserting questions

Insert questions using the `sd_question()` function, like this:

## Code

```
sd_question(  
  type = 'mc',  
  id   = 'fruit',  
  label = "1. Do you like fruit?",  
  option = c(  
    'Yes!' = 'yes',  
    'Kind of' = 'kind_of',  
    'No :( ' = 'no'  
  )  
)
```

Format is "Label = value"

## Output

1. Do you like fruit?

- Yes!
  - Kind of
  - No :(
- \*

# surveydown supports lots of **question types**

Some common types you may want to use:

| Type                     | Description                                 |
|--------------------------|---------------------------------------------|
| <code>mc</code>          | Multiple choice question (single choice)    |
| <code>mc_multiple</code> | Multiple choice question (multiple choices) |
| <code>mc_buttons</code>  | Multiple choice question (large buttons)    |
| <code>select</code>      | Drop down menu (choose one)                 |
| <code>text</code>        | Open text, single row                       |
| <code>textarea</code>    | Open text, block                            |

# Embed images with html

I recommend just writing html code, like this

```
<center>  
  
</center>
```



# Embed images with markdown

```
{fig-align="center" width="250"}
```



Try out the surveydown [studio app](#)

```
sdApps::sd_studio()
```

10:00

# Your turn

- Open and edit the `survey.qmd` file that you previously made.
- Pick a topic for your survey (a food, an animal, a sports team...whatever).
- Draft a survey about that topic. Include the following:
  - Page 1: A welcome message in large font ("Welcome to a survey about [topic]") and an image about the topic (find an image somewhere).
  - Pages 2 to N: Add different questions about the topic using several different question types.
- Try out different themes to change the look and feel.