

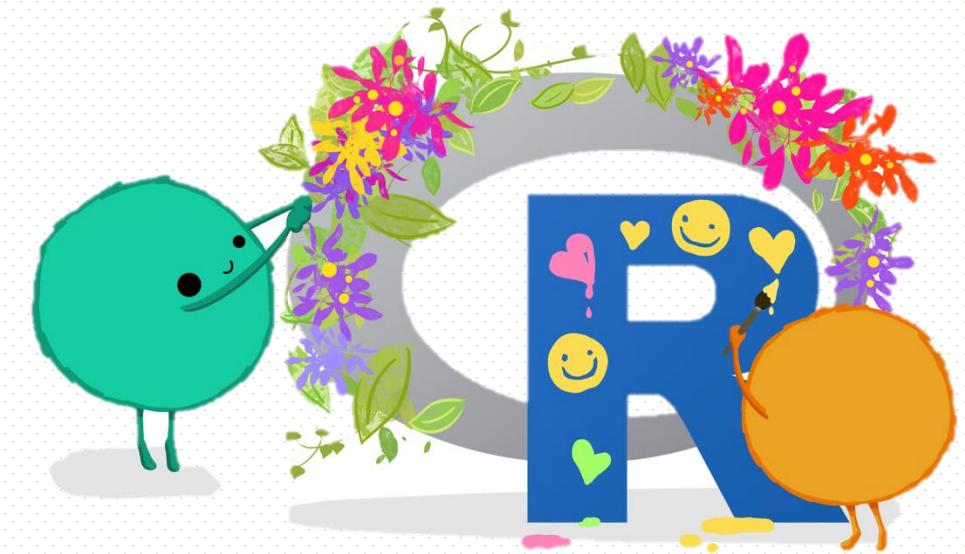
# why build silly things in R?

Dr. Fonti Kar (she/her)

University of New South Wales, Sydney

WOMBAT 2024

Original artwork by [@allison\\_horst](#)



two truths, one lie

two truths, one lie

1. learning new R skills is hard.

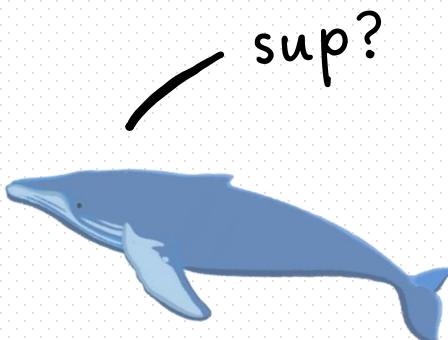
# two truths, one lie

1. learning new R skills is hard.
2. southern hairy-nosed wombats can reach speeds of 40 kph



# two truths, one lie

1. learning new R skills is hard.
2. southern hairy-nosed wombats can reach speeds of 40 kph
3. whales are really cool.



# two truths, one lie

1. learning new R skills is hard.
2. southern hairy-nosed wombats can reach speeds of 40 kph
3. whales are really cool.

# two truths, one lie

1. learning new R skills is hard.
2. ~~southern hairy-nosed wombats can reach speeds of 40 kph~~
3. whales are really cool.





reverse dependencies

vignettes

NAMESPACE

CRAN

continuous integration

object oriented programming

roxygen

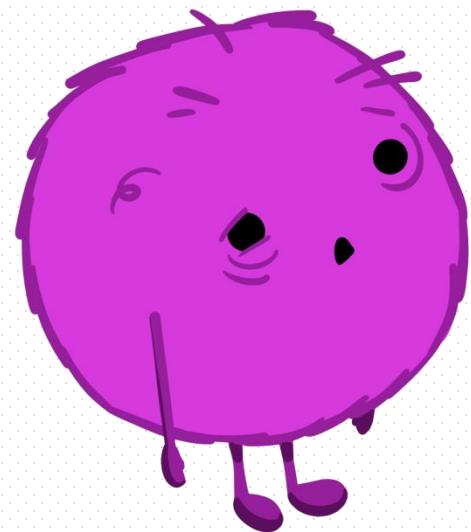
non-standard evaluation

unit tests

code coverage

continuous deployment

# challenge: constant need to learn

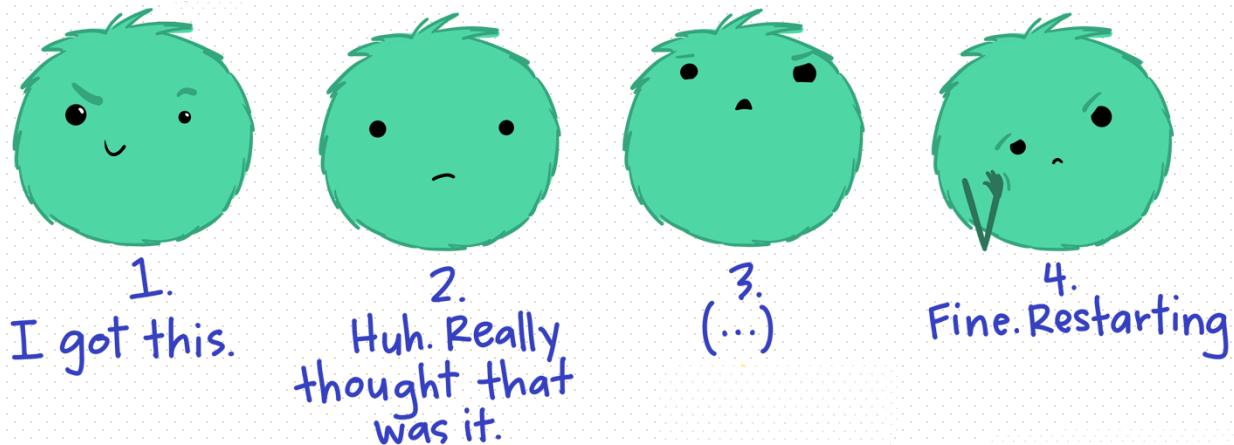


learning new R skills is hard.



1.  
I got this.

# learning new R skills is hard.



1.  
I got this.

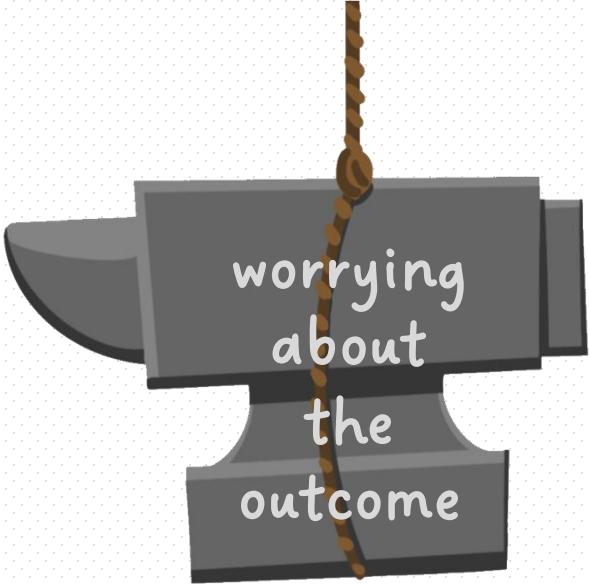
2.  
Huh. Really  
thought that  
was it.

3.  
(...)

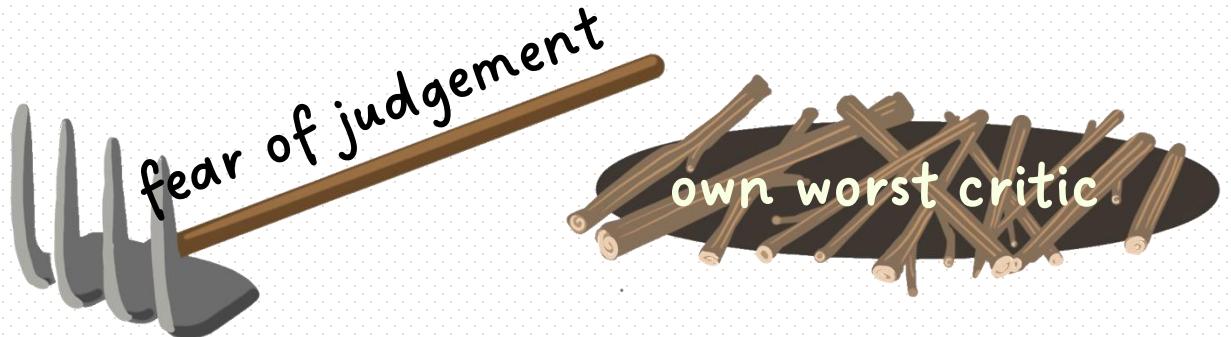
4.  
Fine. Restarting

# learning new R skills is hard.





challenge:  
we learn on hard mode





whales are really cool.



a whale of inspiration



# a whale of inspiration

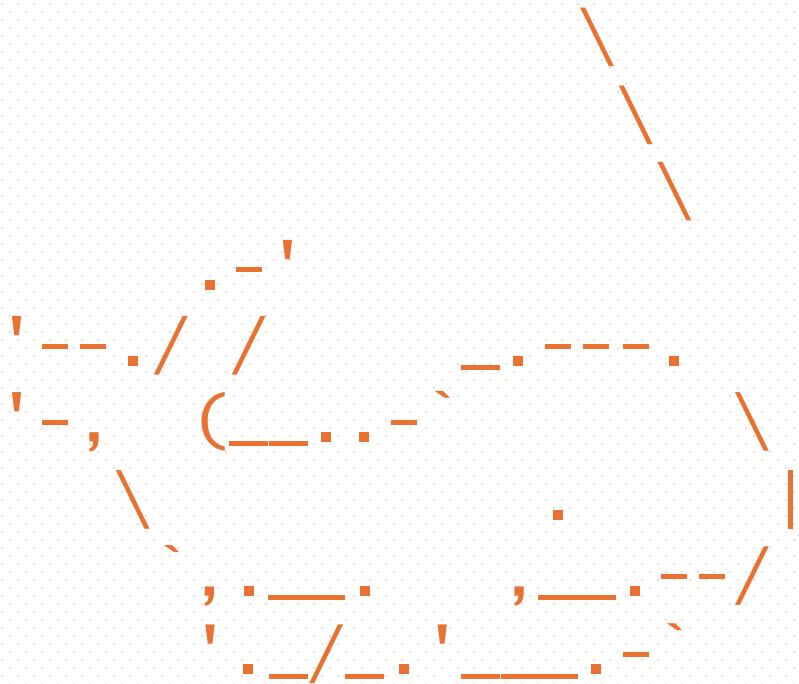


# a whale of inspiration



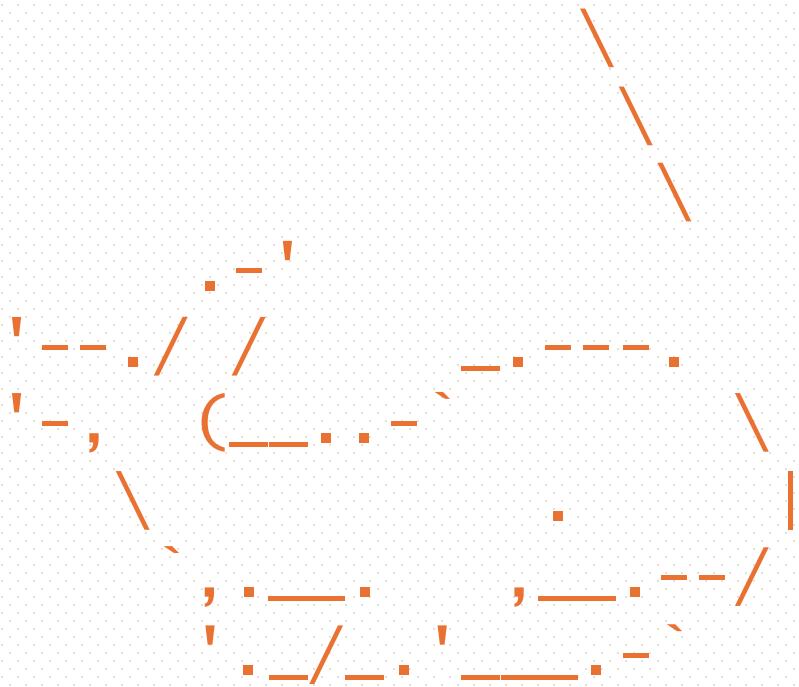
```
> say()
```

I'm having a whale of a time!



> say()

Gee...this is over-whalming!



```
> say("I'm at WOMBAT 2024 weeeheeeee!")
```

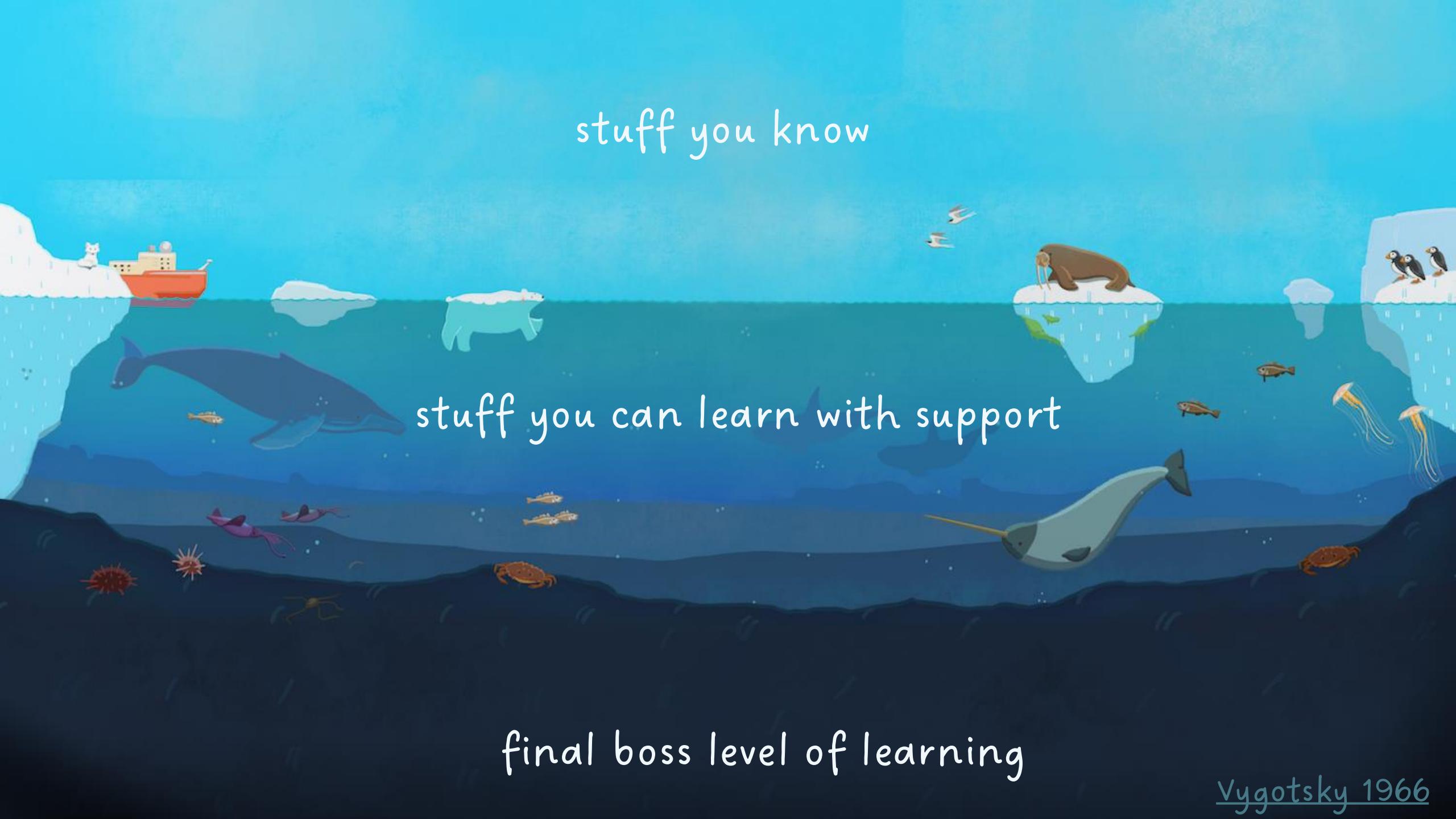




so, why is silly important for learning?

silliness is engaging



The background features a stylized arctic landscape. In the upper left, a small red boat with a white cat sits atop a large white iceberg. A polar bear stands on a blue iceberg in the center. In the lower right, a narwhal swims near the surface. On the far right, three penguins stand on another white iceberg. The water is a gradient from light blue at the top to dark blue at the bottom, with various sea creatures like fish, jellyfish, and crabs swimming throughout.

stuff you know

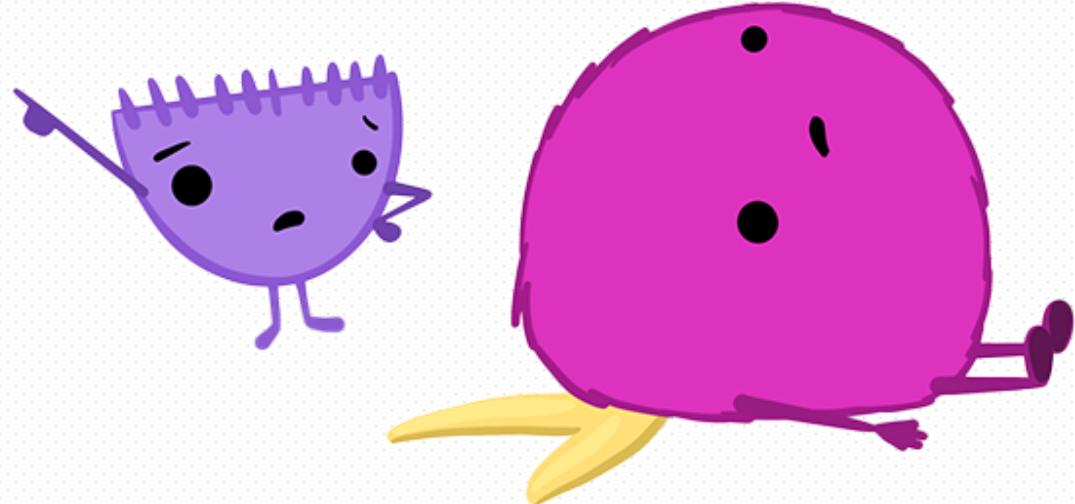
stuff you can learn with support

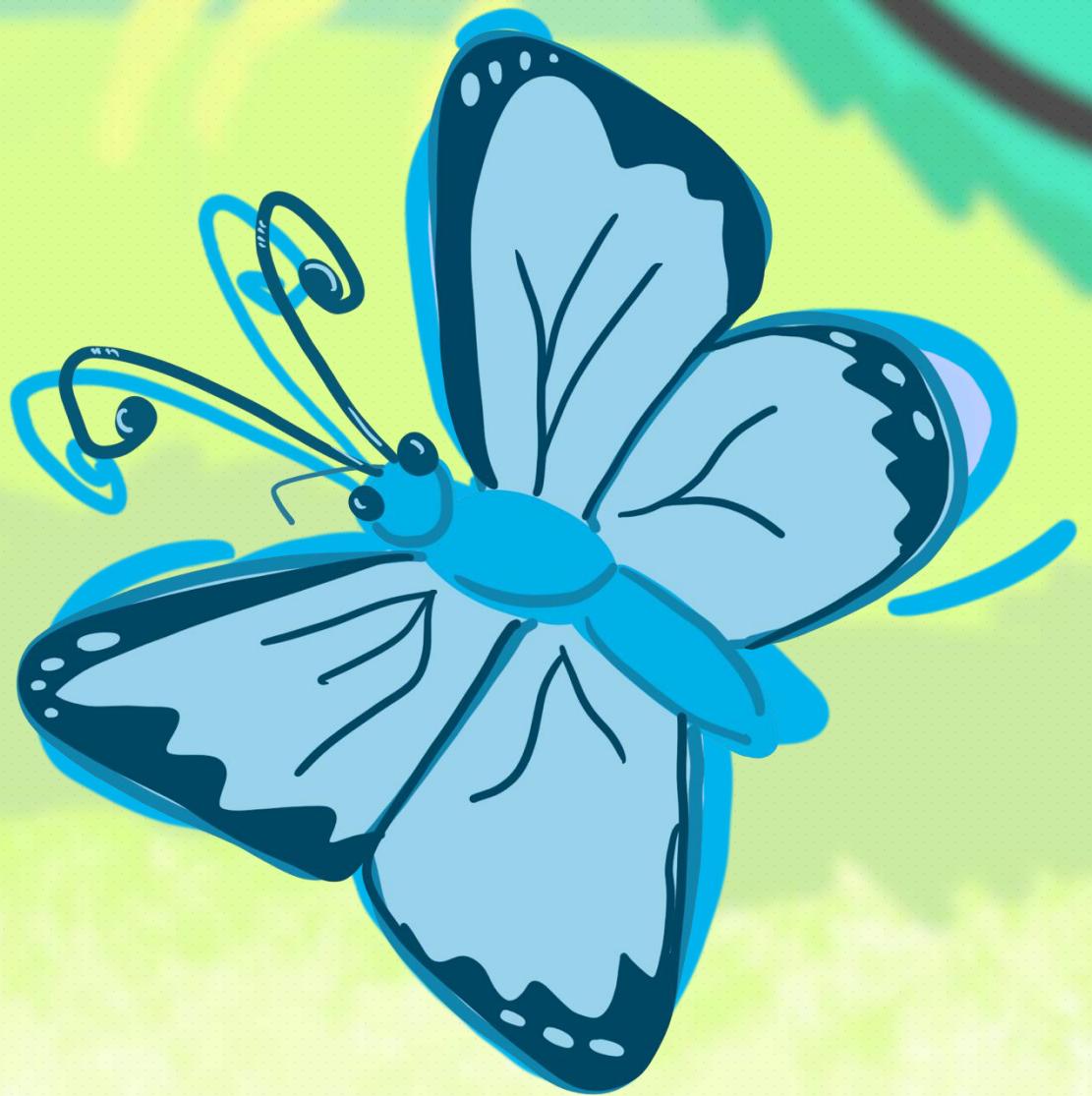
final boss level of learning

Vygotsky 1966

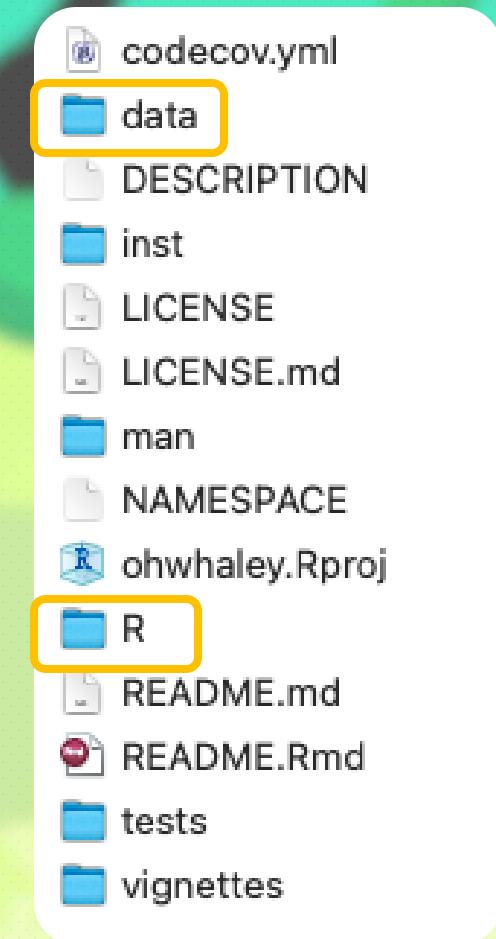


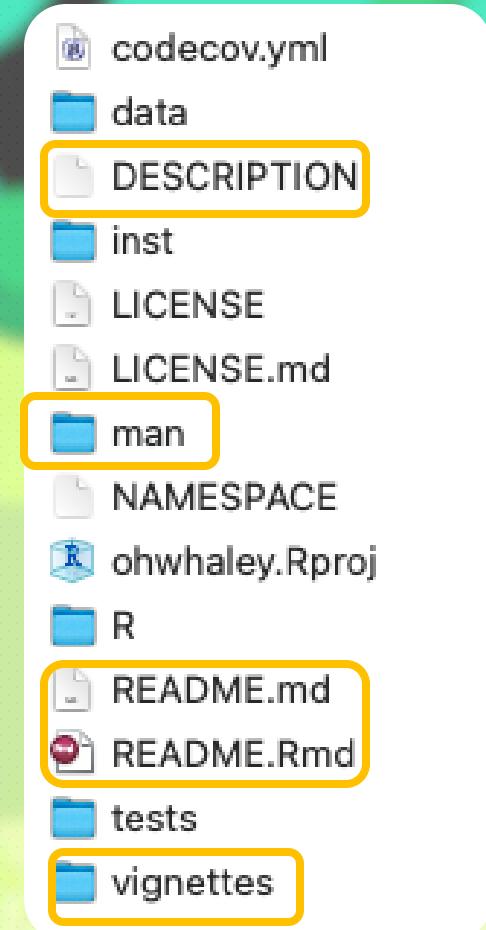
silly frees up brain space

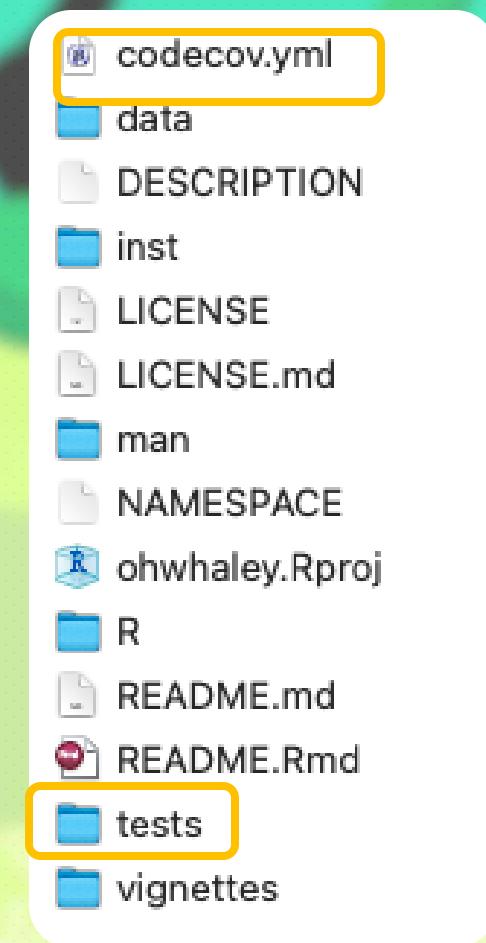
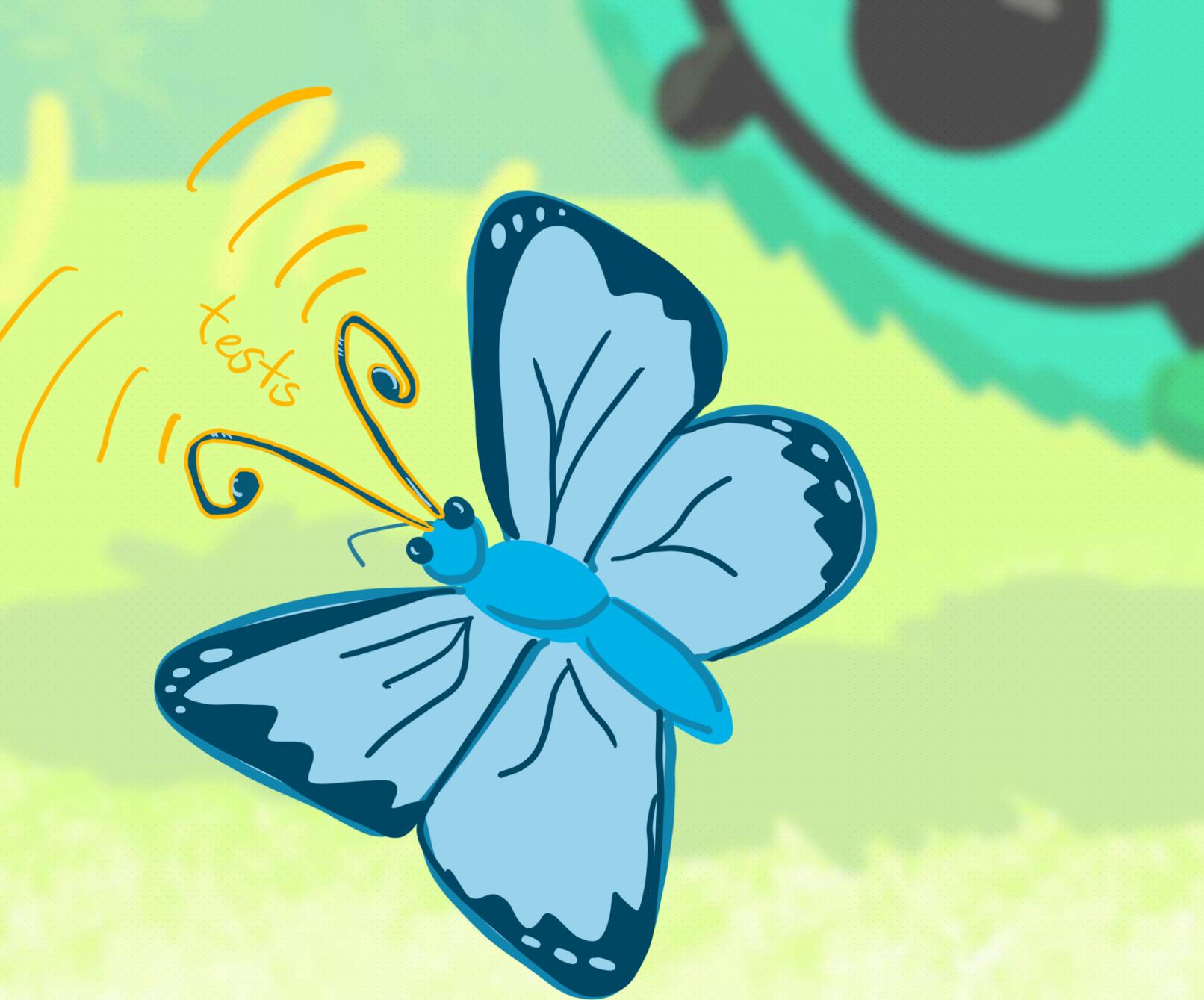




silly brings focus

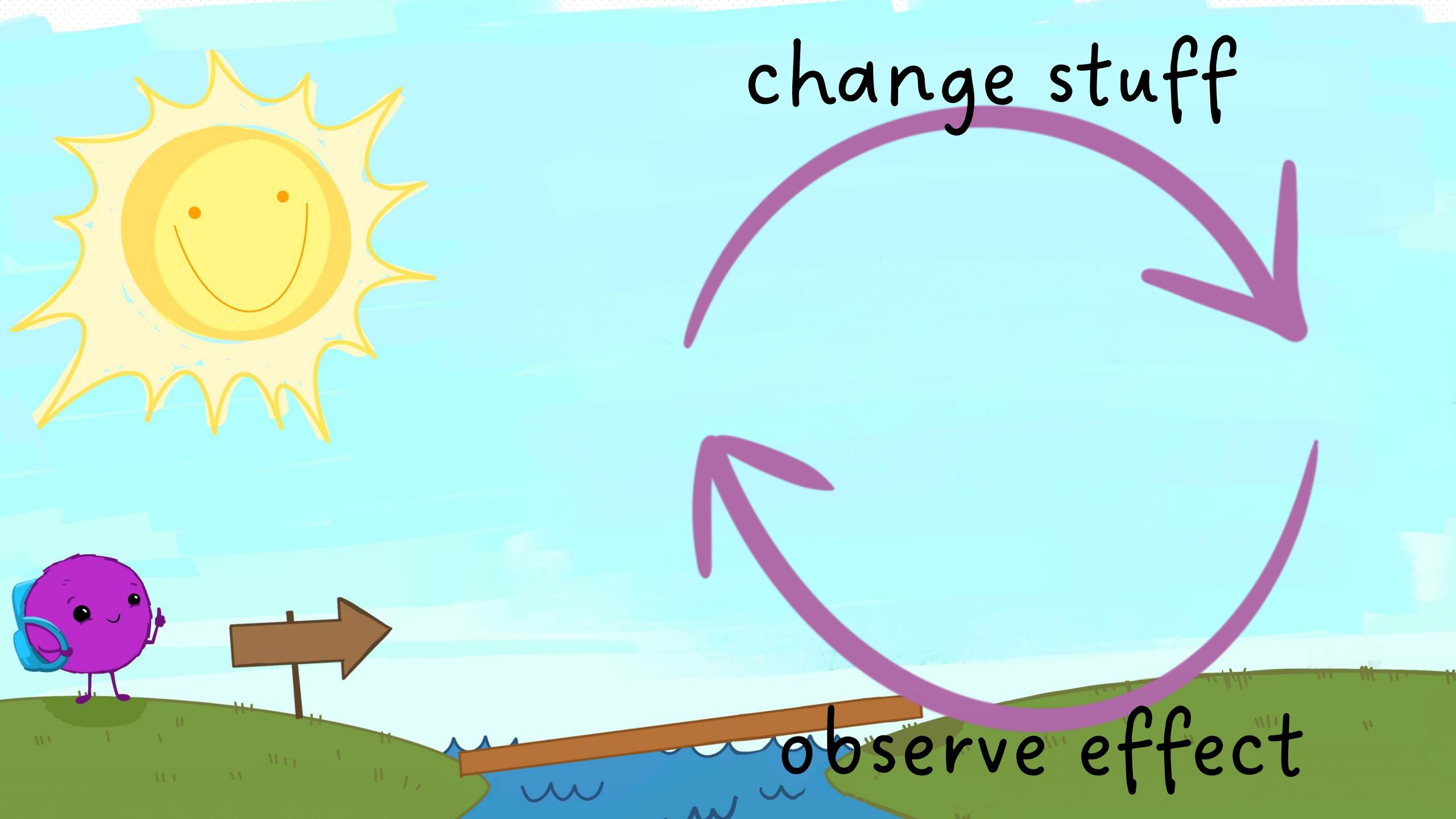








silly is safe



change stuff

observe effect



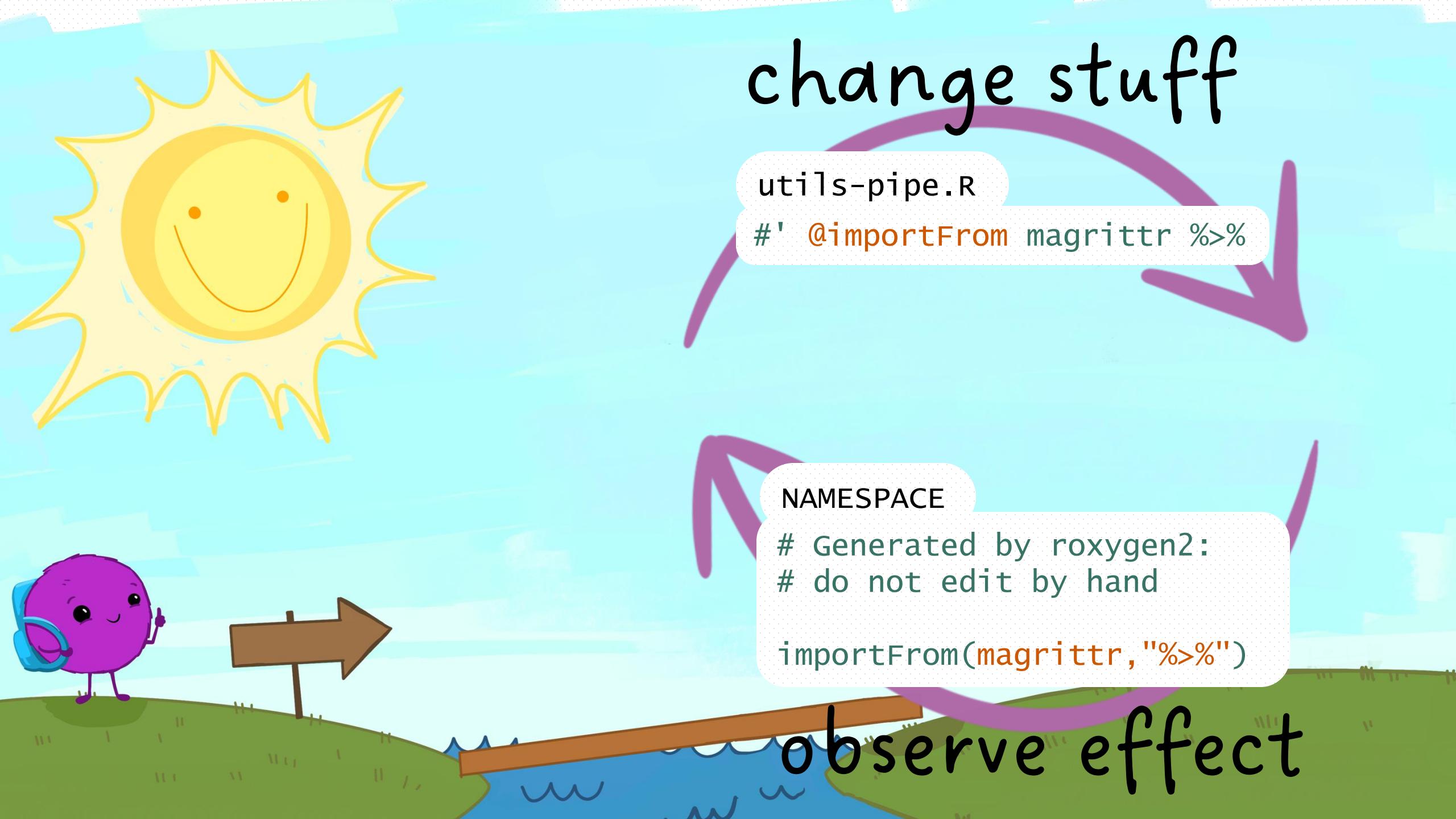
# change stuff

utils-pipe.R

```
#' @importFrom magrittr %>%
```



# observe effect



# change stuff

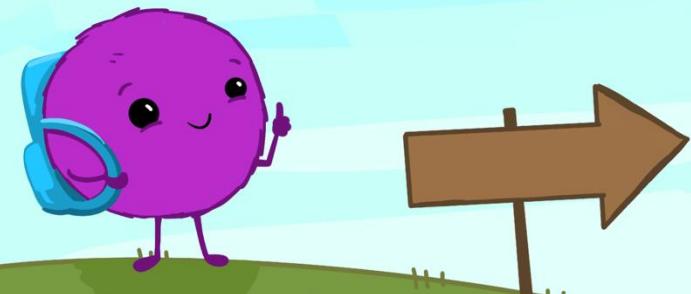
utils-pipe.R

```
#' @importFrom magrittr %>%
```

NAMESPACE

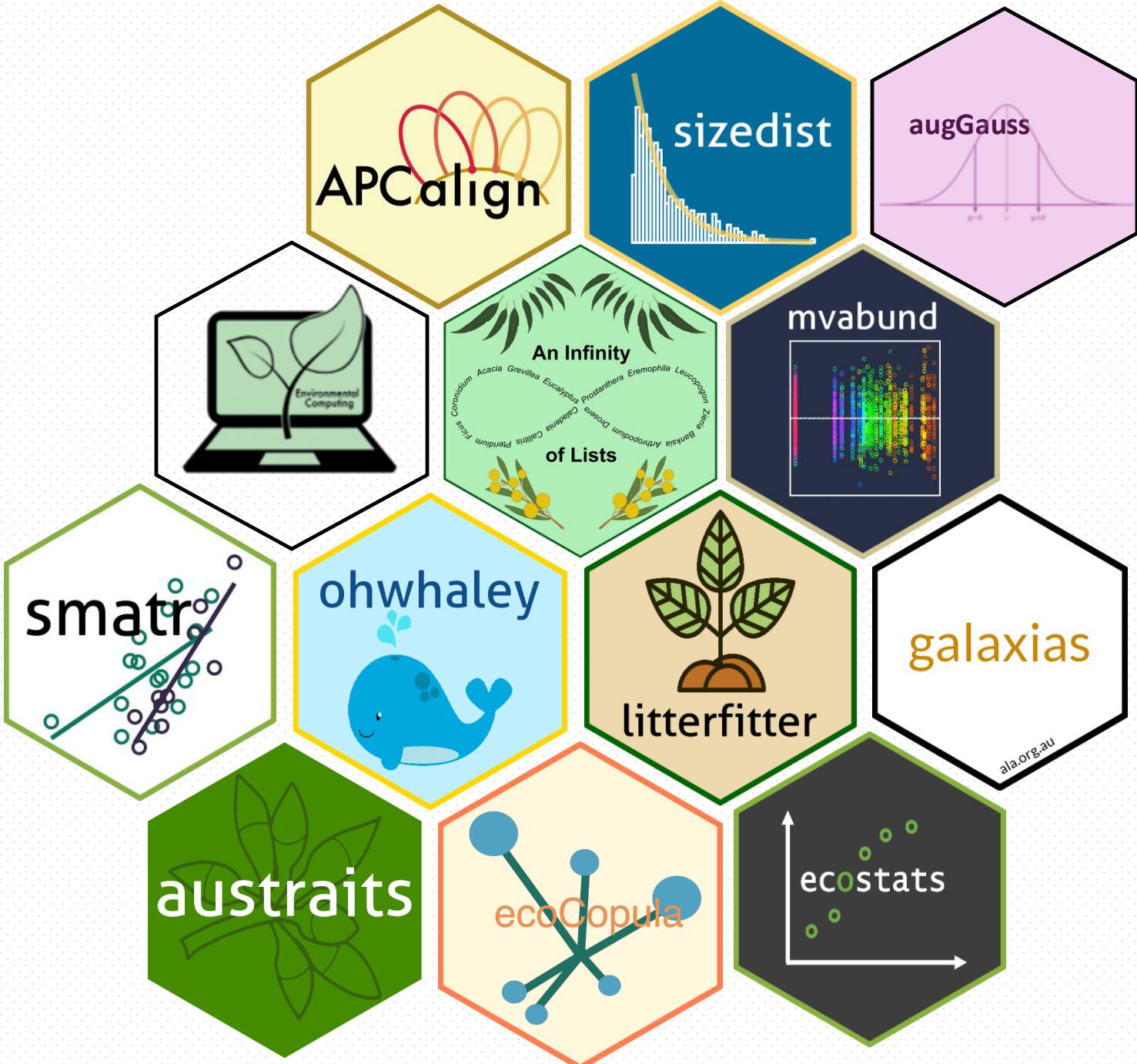
```
# Generated by roxygen2:  
# do not edit by hand
```

```
importFrom(magrittr, "%>%")
```

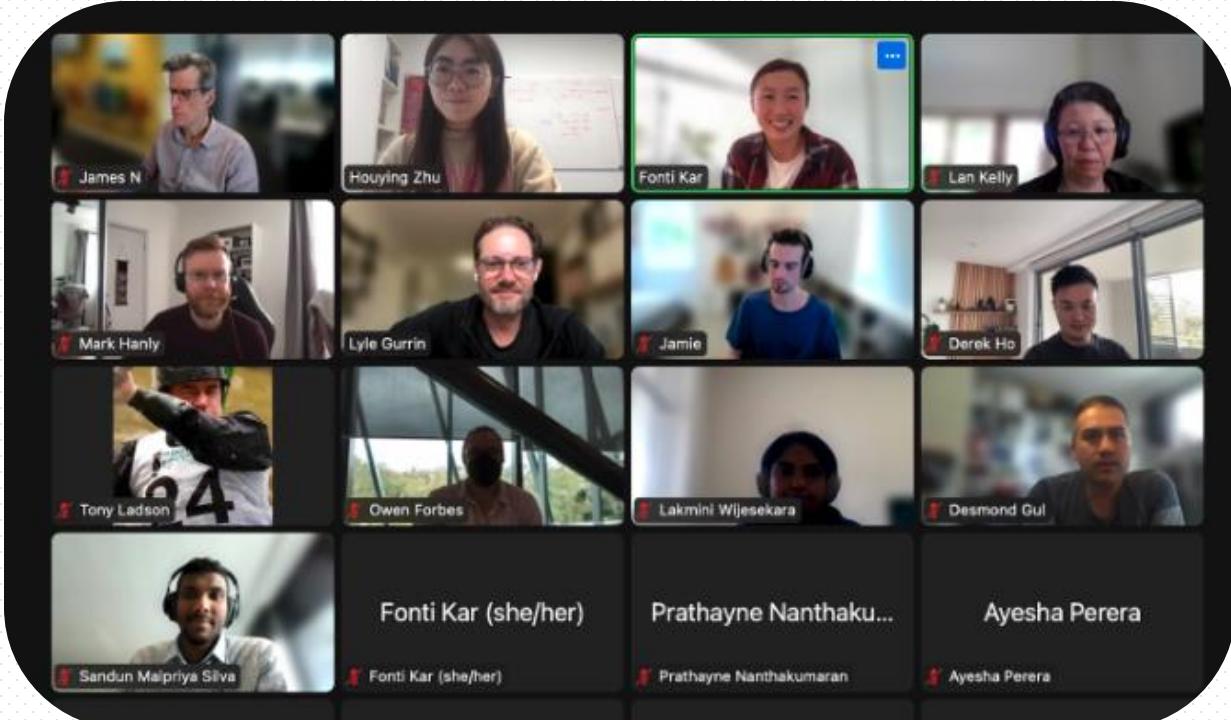


# observe effect

silly helps  
you do  
hard things



# teaching tool



*“Cause if you like it then  
you should've put it in an R package”*



Dr. Hannah Munro @hannah\_tac · Jul 28, 2021  
This R package makes me smile.



github.com

GitHub - fontikar/ohwhaley: Messages With A Whale-  
Messages With A Whale-esque Flair. Contribute to  
fontikar/ohwhaley development by creating an ...

Q 1



♡ 1



good vibes



Sam Helle 🐾 🐕 @samanthaiam · Oct 24, 2022  
Everyone talks about how social media is bad for your mental health, but

Q 88

↑ 775

♡ 6.2K



Will Cornwell  
@will\_cornwell

try [github.com/fontikar/ohwhaley](https://github.com/fontikar/ohwhaley)... whales help mental health, in my  
experience



...

# fontikar/ohwhaley

Messages With A Whale-esque Flair



2

Contributors

1

Issue

4

Stars

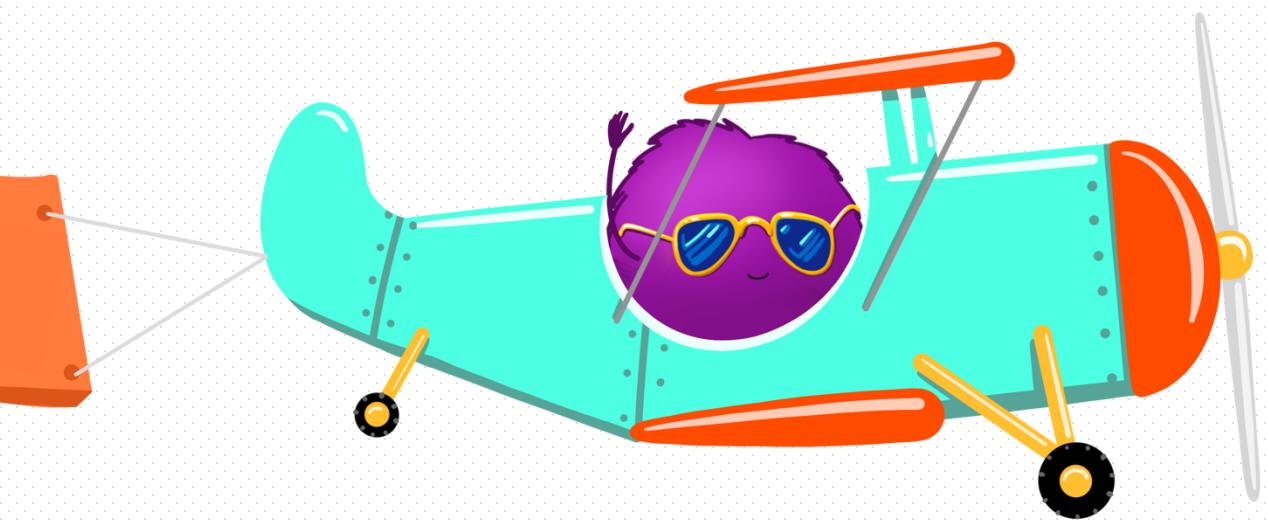
3

Forks

GitHub - fontikar/ohwhaley: Messages With A Whale-esque Flair  
From github.com

11:02 AM · Oct 25, 2022

practical tips



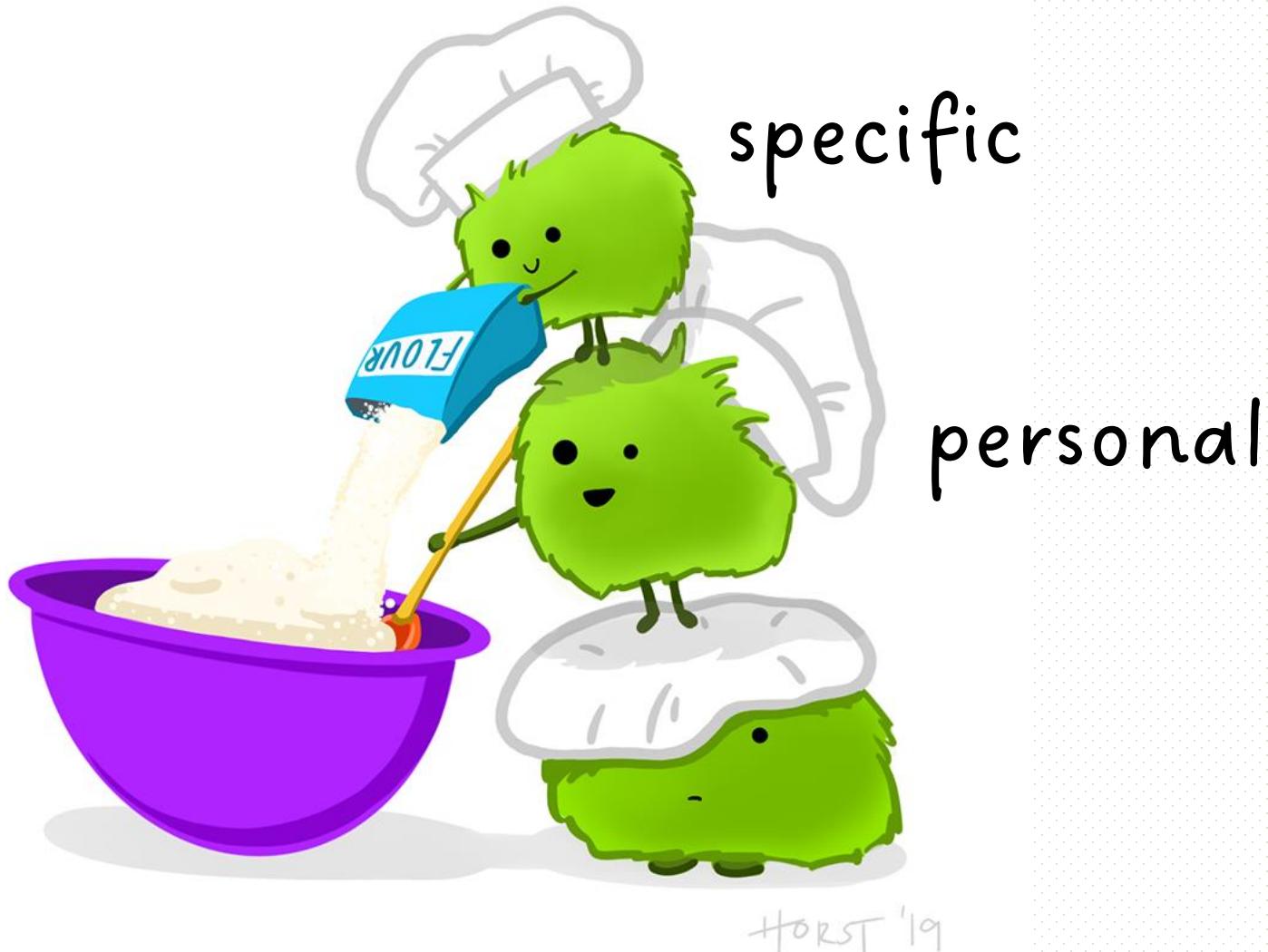
# 1. limit the scope



specific

HORST '19

# 1. limit the scope



# 1. limit the scope



specific

personal

not work related

machine learning  
image classification model  
dogs or fried chicken?



An illustration of two cartoon aliens. A green alien with a blue party hat and antennae is carrying a purple alien with a sad expression. They are climbing a brown mountain. At the top of the mountain is a pink flag with the word "yay." written on it. The background is light blue with white clouds.

GPT-4

2. use an LLM

# LLM as a librarian



"I want to learn X, what are the key concepts I need to know?"



"What are some recent resources I would use to learn X?"

# LLM as a brainstorm buddy



“What are some silly things I can create to learn about X?”



“Recommend some silly datasets I can use to build Y to learn X?”

# LLM as a code explorer

- lowers barrier to start
- starting point
- immediate feedback

# LLM as a code explorer

## ⭐️ shiny Assistant ⭐️

R Python Concise ⚙️

Hello, I'm Shiny Assistant! I'm here to help you with [Shiny](#), a web framework for data driven apps. You can ask me questions about how to use Shiny, to explain how certain things work in Shiny, or even ask me to build a Shiny app for you.

Who can see my activity? ⓘ

Create a data explorer using the `starwars` dataset from [dplyr](#). I want to select a character and an image of the character will be displayed. The character's traits should be displayed below the image

Create a Star Wars CSS theme, make the background look like stars.

Create a button to play the Star War's theme song | ↑

- data explorer
- display image + trait
- CSS theme
- background music

R Python Concise < Shiny for R

Hello, I'm Shiny Assistant! I'm here to help you with [Shiny](#), a web framework for data driven apps. You can ask me questions about how to use Shiny, to explain how certain things work in Shiny, or even ask me to build a Shiny app for you.

Here are some examples:

- "How do I add a plot to an application?"
- "Create an app that shows a normal distribution."
- "Show me how make it so a table will update only after a button is clicked."
- "Ask me, "Open the editor", then copy and paste your existing Shiny code into the editor, and then ask me to make changes to it."

Let's get started! 

Who can see my activity? 

Create a data explorer app that uses the starwars dataset from dplyr. I want to select a character and the UI will display an image of the character and its traits. I want the characteristics of each character displayed below the image. I want the starwars theme song playing in the background. I want the app to have an stars wars theme. Use the font "Impact" without using Google Fonts

Enter a message... 

app.R + ↗ Re-run app (%-Shift-Enter)

```
1 library(shiny)
2 library(dplyr)
3 library(bslib)
4 library(htmltools)
5
6 # Load the starwars dataset
7 data(starwars)
8
9 # Function to get image URL for a character
10 get_image_url <- function(name) {
11   base_url <- "https://starwars-visualguide.com/assets/img/characters/"
12   image_id <- which(tolower(starwars$name) == tolower(name))
13   if (length(image_id) == 0) return(NULL)
14   return(paste0(base_url, image_id, ".jpg"))
15 }
16
17 # Custom theme
18 sw_theme <- bs_theme(
19   bg = "#000000",
20   fg = "#FFE81F",
21   primary = "#FFE81F",
22   base_font = "Impact",
23   heading_font = "Impact"
24 )
25
26 ui <- page_fluid(
27   theme = sw_theme,
28   tags$head(
29     tags$style(HTML(
30       body {
```

Attaching package: 'dplyr'  
The following objects are masked from 'package:stats':  
  filter, lag  
The following objects are masked from 'package:base':  
  intersect, setdiff, setequal, union

Attaching package: 'bslib'  
The following object is masked from 'package:utils':  
  page

<https://unsw.shinyapps.io/shiny-starwars/>

# silly is contagious



Horst '18

# silly is contagious

allison horst ❤



<https://allisonhorst.com/>

# silly is contagious



 **Fonti Kar**   
[@fontikar@fosstodon.org](mailto:@fontikar@fosstodon.org)

I'm currently compiling a list of silly things built with [#Rstats](#) or [#Python](#) 

Could be an app/library/viz/model/workflow/dataset...ANYTHING 

Tell me what sparked your idea and sharing source code is a bonus!! 

Pls boost away, I want to see celebrate everyone's creativity! 

[@PipingHotData](#) [@kellybodwin](#) [@ellakaye](#) [@njtierney](#) this is following from {aperol} 

[@coolbutuseless](#) this is right up your alley! (1/n)

[Oct 03, 2024, 07:58 AM](#) · 

Last edited [Oct 03, 08:10 AM](#)

[26 boosts](#) · [17 favorites](#)

<https://github.com/fontikar/sillythings>

**OREGON TRAIL**

Dan Rawitsch

This program simulates a trip over the Oregon Trail from Independence, Missouri to Oregon City, Oregon in 1847. Your family of five will cover the 2040-mile Oregon Trail in 5-6 months — if you make it alive.

**INTRODUCTION**

"The Santa Fe Trail being first established, a signboard was later set up to show where the Oregon Trail branched off. It bore the simple legend 'Road To Oregon.' ... Surely so unostentatious a sign never before nor since announced so long a journey."

- H.M. Chittenden  
*The American Fur Trade of the Far West*

During the thirty-year period from 1840 to 1870, thousands of pioneers traveled over the 2000-mile Oregon Trail to settle on the West Coast. The history of the trail may be seen by some as a strong example of heroic American themes such as "conquering the frontier" and "the pioneer spirit." To others, the great western migration carries the political overtones of the colonists and their descendants forcing out British imperialism and clearing away the native American Indians in an effort to dominate middle North America themselves. At the very least, the journey over the trail represents the human stories of many individuals who, oblivious to historical trends, tried to survive in life as best they knew how.

**RATIONALE FOR COMPUTER USAGE**

This computer simulation, developed initially in 1971 and refined in 1975, is an attempt to give students a better feeling of what the journey west was like for the people who attempted it. Like all simulations, OREGON does not attempt to replicate exactly a trip on a wagon train in the 1840's. But it does attempt to present students with some of the resources, decisions, and events that faced the pioneers of that day. Although students can find out about the Oregon Trail by reading books, visiting museums, watching movies, and similar activities, the simulation allows them to learn from actively participating in the simulated experiences of people from another era.

**Background On The OREGON Program**

In 1971, Don Rawitsch and Bill Heinemann were participating together in a practice teaching program as students at Carleton College, Northfield, Minnesota. Don had been a class on the history of the American West and provided the preliminary information which Bill, a math teacher, used to construct the OREGON program. The program was first implemented on the Minneapolis Schools timesharing system. On the completion of the practice teaching program, the program was removed from the Minneapolis system only as a mounted up listing until Don joined the MECC staff in 1974 and loaded it onto the MECC system. Don then proceeded to do further research on the Oregon Trail and modified the program for historical accuracy to produce the present version. The program has been implemented on Hewlett-Packard, UNIVAC, and Control Data systems.

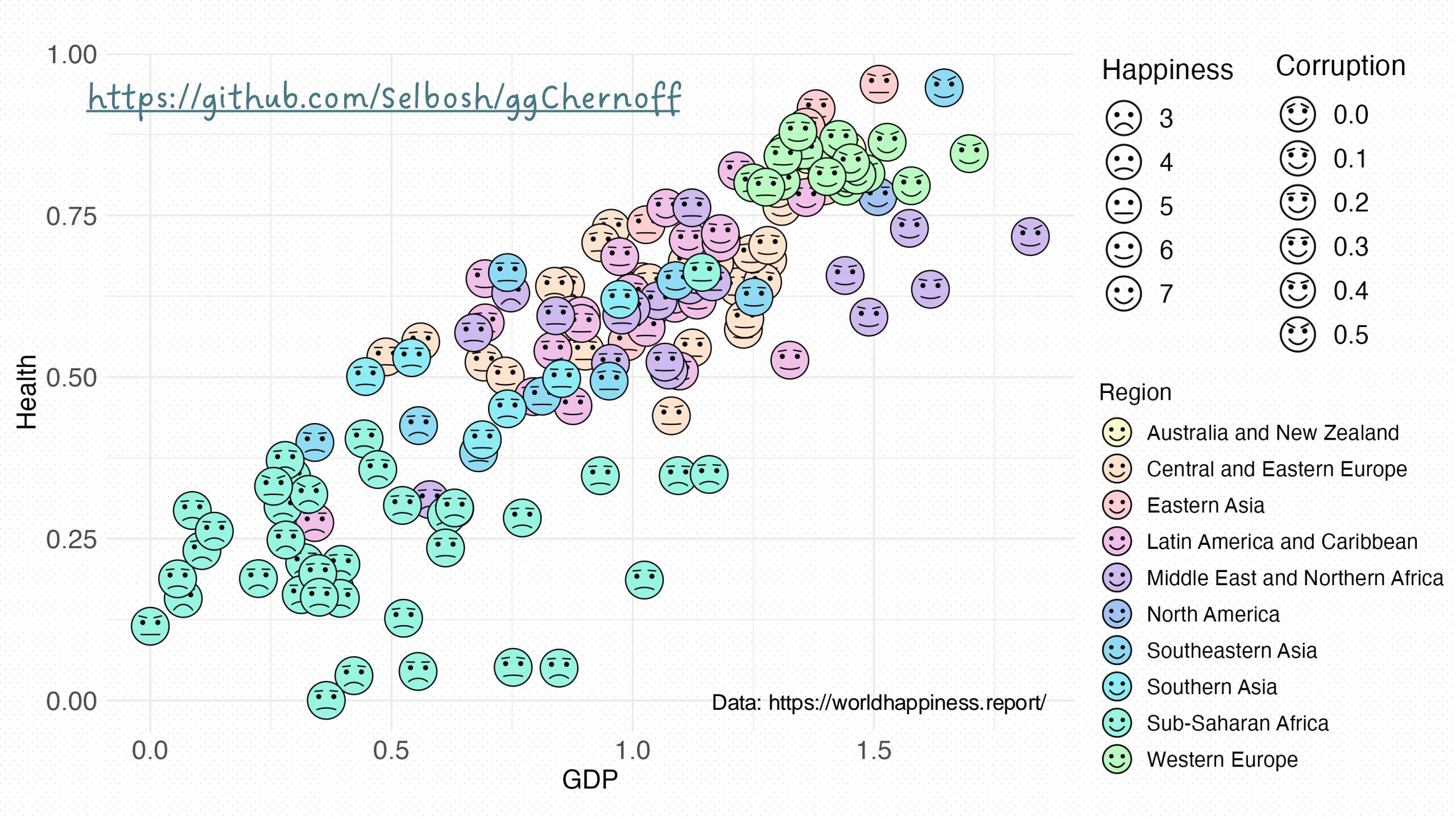
132

CREATIVE COMPUTING

- > HOW GOOD A SHOT ARE YOU WITH YOUR RIFLE?
- (1) ACE MARKSMAN
  - (2) GOOD SHOT
  - (3) FAIR TO MIDDLIN'
  - (4) NEED MORE PRACTICE
  - (5) SHAKY KNEES

THE BETTER YOU CLAIM YOU ARE,  
THE FASTER YOU'LL HAVE TO BE  
WITH YOUR GUN TO BE SUCCESSFUL.

? 5





<https://github.com/coolbutuseless/pacman>

```
> creepr::creepr("strings")
```



<https://github.com/jcken95/creepr>



 [Kelly Bodwin](#) @kellybodwin

[Important question: what would an `#rstats` package called {aperol} do?](#)

This is definitely a very serious question and not at all inspired by [@PipingHotData](#) and me consuming a bit too much of said beverage at a cafe and deciding it sounds like a cool package name.

16     ...

 [See thread](#)



[@kellybodwin](#)



**Nick Tierney**

[@njierny@aus.social](mailto:@njierny@aus.social)

⌚ Jul 12

@kellybodwin @PipingHotData I reckon the package should just deliver specific praise. Like maybe it grabs a short function you wrote and spits it out into the console and is like: "Hey. Hey. Hey this function is so great and you're so great, and you should remember that."

↳ 1



...



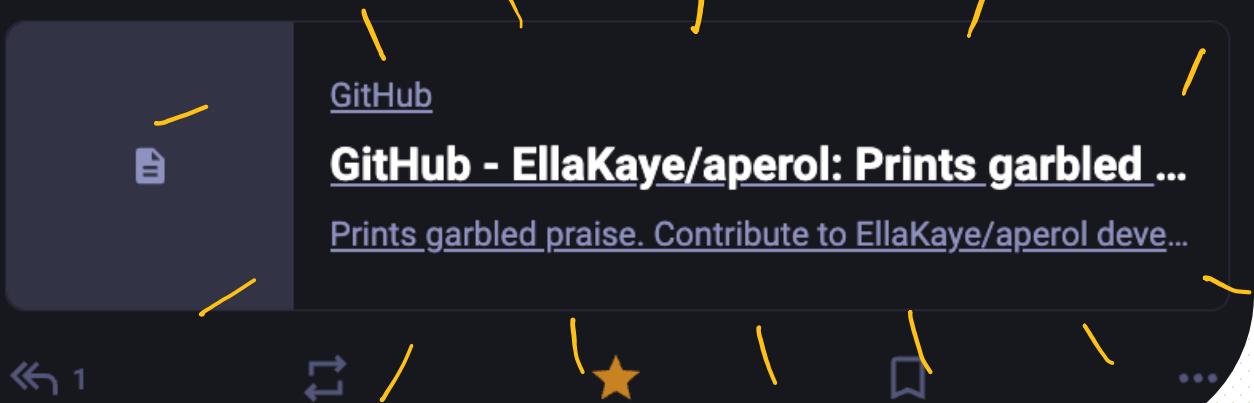
[@njierny](mailto:@njierny)

 **Ella Kaye**  
[@ellakaye](https://twitter.com/ellakaye)

⌚ Jul 15

@njtierney @kellybodwin @PipingHotData Done. Comments for improvement/PRs welcome (though hard to justify too much more time on this)!

[github.com/ellakaye/aperol](https://github.com/ellakaye/aperol)





@EllaKaye



<https://github.com/EllaKaye/aperol>

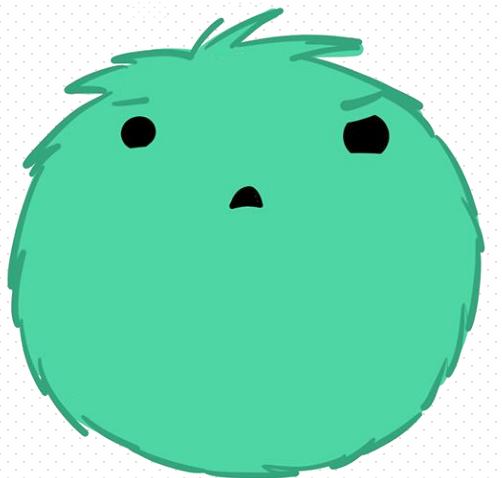
```
> aperol::tipsy("${EXCLAMATION}! You are ${creating} a ${adjective}  
${rpackage}!")
```

```
[1] "WOWIE! You forming are a superb program!"
```



```
> aperol::tipsy("${EXCLAMATION}! You are ${creating} a ${adjective}  
${rpackage}!")
```

```
[1] "HURRAH! building are You a excellent software!"
```



```
> aperol::tipsy("${EXCLAMATION}! You are ${creating} a ${adjective}  
${rpackage}!")
```

```
[1] "project! are project! devising HURRAH! You a great"
```



## suggestion: use `withr::local_seed()` in tests #3

Closed

maelle opened this issue on Jul 18 · 3 comments



maelle commented on Jul 18

instead of `set.seed()` that changes the global state. [https://withr.r-lib.org/reference/with\\_seed.html](https://withr.r-lib.org/reference/with_seed.html)



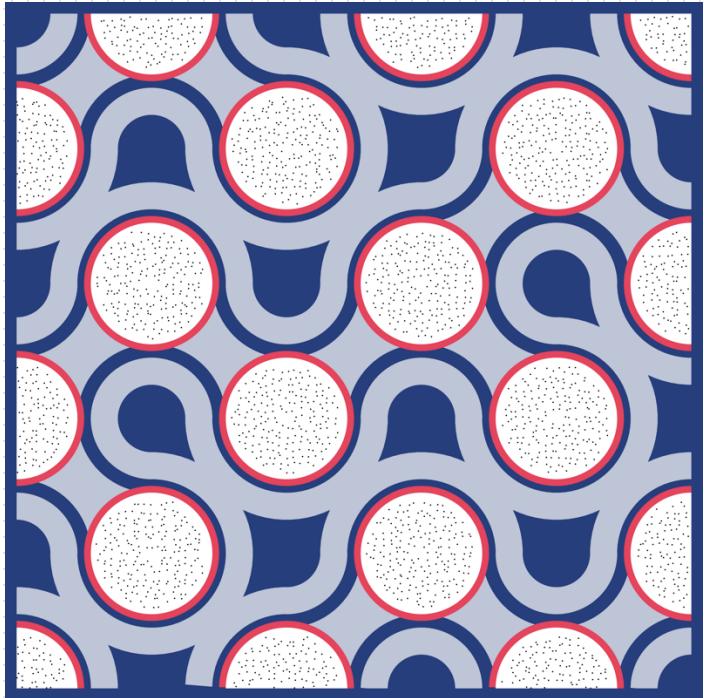
EllaKaye closed this as completed in `e7ef2ef` on Jul 18



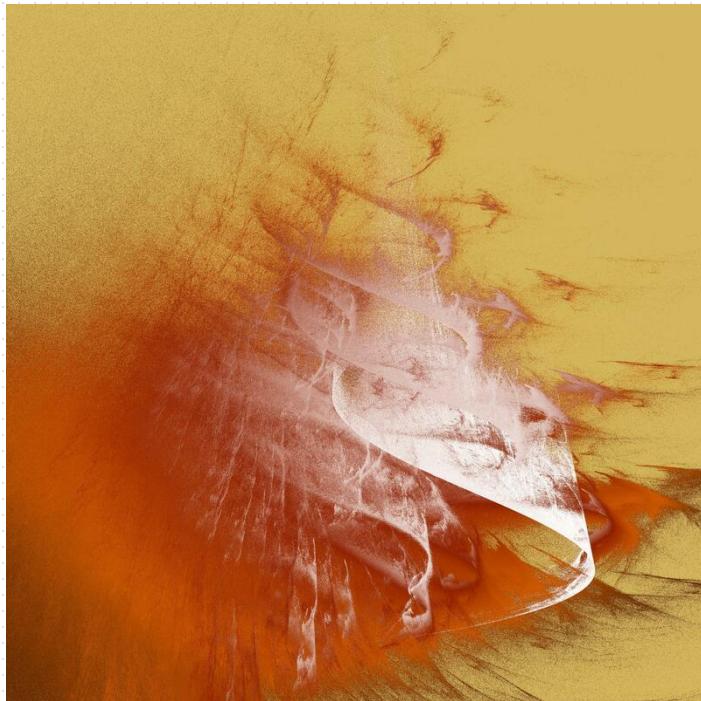
@maelle

silly connects + collaborates

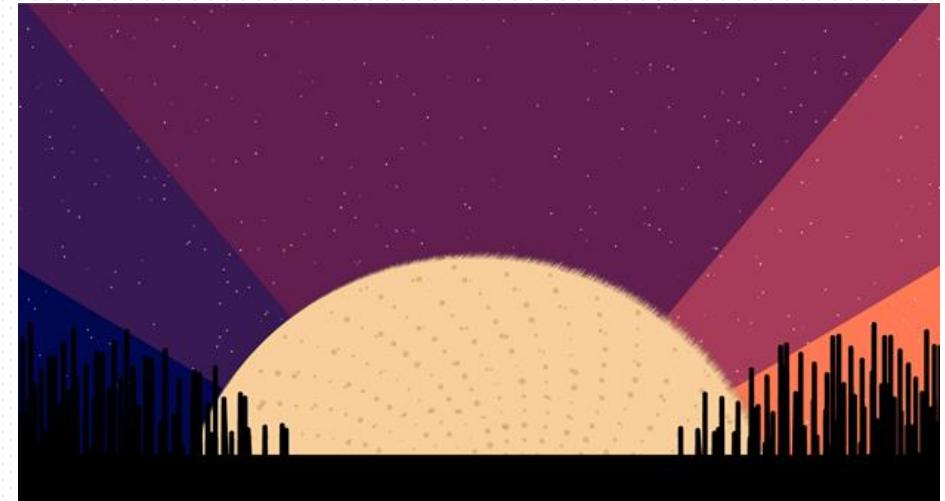
# silly's cousin - #aRtistry



[@ijeamakaanyene](#)



[@djnavarro](#)



[@Meghansaha](#)





machine learning

generative AI

prompt engineering

python

azure

automated reports

dashboards

neural networks

SQL

model production

power apps



be silly

# thank you!

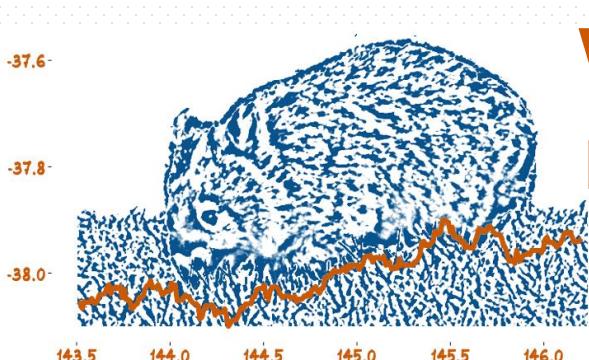
Come say hi and get a hex sticker

[remotes::install\\_github\("fontikar/ohwhaley"\)](#)

<https://github.com/fontikar/sillythings>

Whale video + photo: [@peterexplores](#)

Inspiration: [Simone Giertz](#) and [Bad UI competition](#)



ECOLOGICAL  
SOCIETY  
OF AUSTRALIA

A R D C

Australian Research Data Commons



let's connect!

