Quarto Crash Course

For School of Psychology, Speech and Hearing

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Kauhau

- What is `Quarto`?

- Documentation

- Version control, Remote repositories, and Blogging

- Templates

- Presentation

- Final thoughts

Problem 1

Criterion		
ENERGY	AMP	1
BEACH	AFRICA	1
ERRAND	HOUR	1
PITY	GOLDFISH	1
GATE	DAISY	1
TICKET	FLUTE	1
LINT	CURTAIN	1
TATTOO	UNCLE	1
THUD	FOOTBALL	1
FLAG	SWORD	
SPINE	LOBSTER	1
STUMBLE	CLOWN	
NEEDLE	DOCTOR	1
BROOM	HOUSE	1
TRIBE	VALLEY	1
POSITION	CHAIR	1
REMOVE	CANCER	1
ORPHAN	LAMB	1
BOND	WEDDING	1
PASTE	TOMATO	1
CRUMB	TOASTER	1
ACCIDENT	SNOW	
GREED	PENNY	1
VITAMIN	LEMON	1

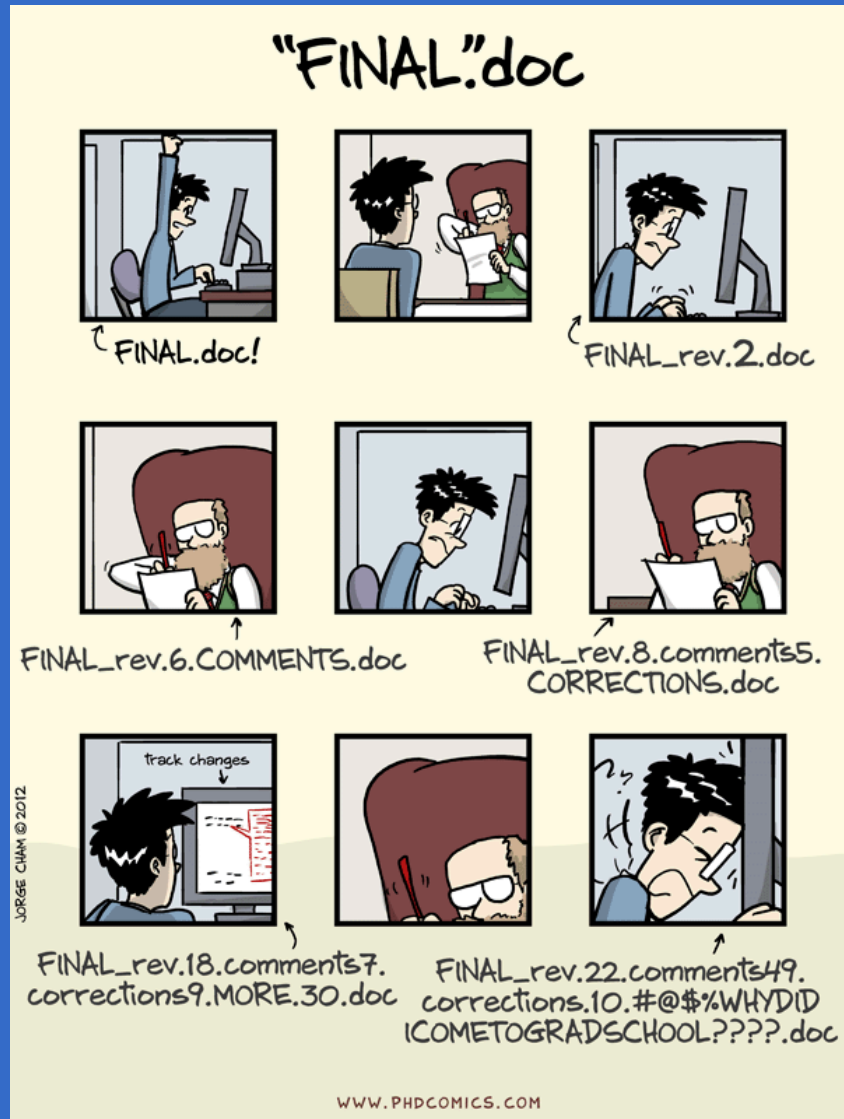| SP		
ERRAND	HOUR	1
TATTOO	UNCLE	1
CRUMB	TOASTER	1
STUMBLE	CLOWN	
HAVEN	FALCON	
SLANDER	ROACH	1
POSITION	CHAIR	1
ORPHAN	LAMB	1
DECAY	CARBON	1
BRAID	DOLL	1
JARGON	PHYSICS	1
ACCIDENT	SNOW	
REFLEX	BICYCLE	1
TRIBE	VALLEY	1
VICE	CIGAR	1
VITAMIN	LEMON	1
GATE	DAISY	1
PASTE	TOMATO	1
FAULT	SADNESS	1
PLANET	BLUE	1
POLLUTION	SULFUR	1
CLUSTER	NECKLACE	1
WEDGE	CHEDDAR	1
BELT	SHIRT	1

Problem(s) 2

- Time constraints and having to be efficient.

- Having to redo a whole document only to change formatting for various purposes.

- MS Word is not necessarily the best application for writing up.

- The need to remember data analysis/stats decisions made along the way.

⚠ What about the audience?

Any other similar problems?

My favourite(?!) problem

And then...

Introduction

Quarto

Welcome to Quarto

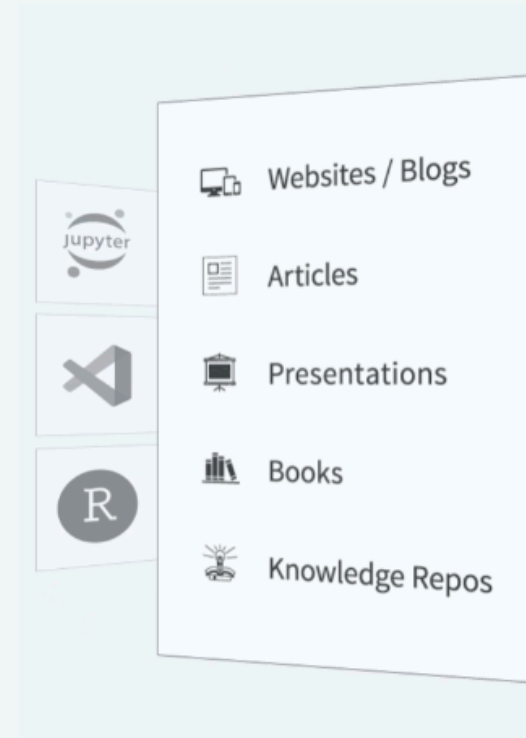**An open-source scientific and technical publishing system**

- Author using Jupyter notebooks or with plain text markdown in your favorite editor.
- Create dynamic content with Python, R, Julia, and Observable.
- Publish reproducible, production quality articles, presentations, websites, blogs, and books in HTML, PDF, MS Word, ePub, and more.
- Share knowledge and insights organization-wide by publishing to Posit Connect, Confluence, or other publishing systems.
- Write using Pandoc markdown, including equations, citations, crossrefs, figure panels, callouts, advanced layout, and more.

Analyze. Share. Reproduce. You have a story to tell with data— tell it with Quarto.

Get Started   Guide

Jupyter

R

Websites / Blogs

Articles

Presentations

Books

Knowledge Repos

Website
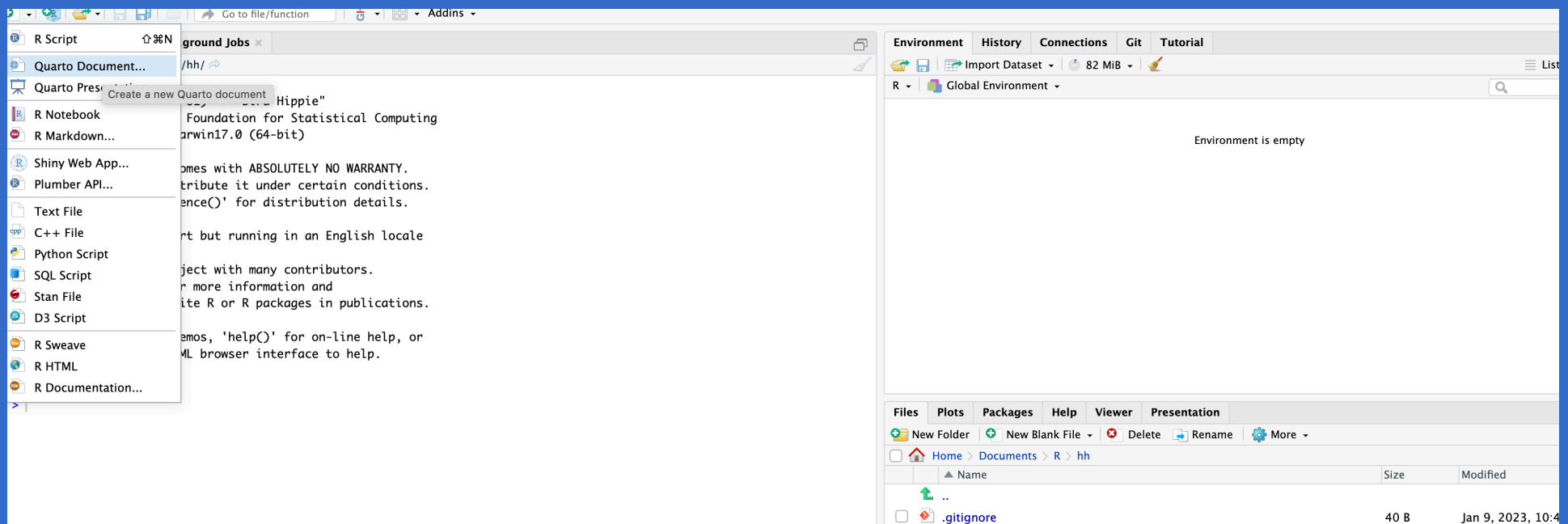
Featured in *Nature*

Cut the tyranny of copy-and-paste with these coding tools
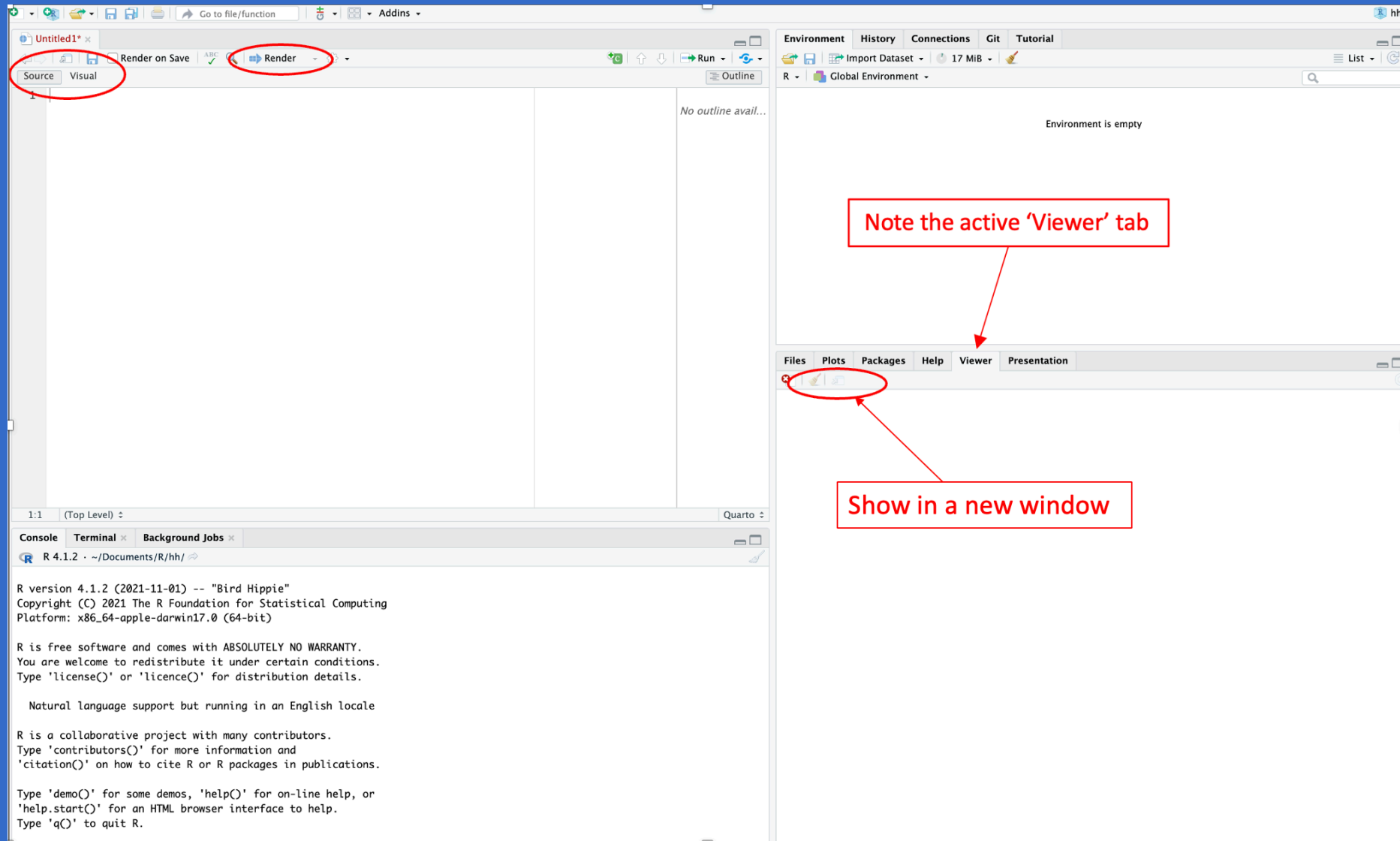(Perkel 2022)

Documentation

Basics

- Use the latest version of `RStudio`, at least `Version: 2022.12.0+353` or later on your computer.

- Within `RStudio`, click on `new file` drop down menu and open a new `Quarto Document`, and name it.

Basics cont...

- Let's have a sneak peak at different parts of a quarto document here.

- Once the `.qmd` document is opened, use either the `source` tab or `visual` tab to start documenting or writing code. Then hit `Render`. You will see output in the `Viewer` menu. See next slide.

Basics cont...

Note the active 'Viewer' tab

Show in a new window

Basics cont...

- Let's try some hands on start-up.

- Demo

- Alternatively, you can copy a similar `.qmd` document to the current project, open it, then edit and render it.

- A comprehensive step-by-step tutorial is available on Quarto website.

- Or, you could watch this YouTube video in your own time. It is a bit outdated, but a great start.

Add citations and reference list

Best done using the `visual editor`.

E.g., Quarto can be used to create executable manuscripts in RStudio, Python, or VS Code (Perkel 2022).

Saving as pdf

Add the following code to `yaml`.

```yaml
format:
  pdf:
    toc: true
    number-sections: true
    colorlinks: true
```

Visit quarto website for further details.

Saving as docx/Word

Add the following code to `yaml`.

```yaml
format:
  docx:
    toc: true
    number-sections: true
    highlight-style: github
```

Version control, Remote repositories, and Blogging

Git

To know more: See official website

GitHub

GitHub
github.com

GitHub, Inc. is an Internet hosting service for software development and version control using Git. It provides the distributed version control of Git plus access control, bug tracking, software feature requests, task management, continuous integration, and wikis for every project. **Wikipedia**

Type of business: Subsidiary

Available in: English

Founded: February 8, 2008 (as Logical Awesome LLC)

https://github.com

Blogging

Now that we know basics of documentation, version control and remote repos (I know, we are yet to demonstrate this), blogging is extremely easy with Quarto. There are two ways:

1. We can add a `_quarto.yml` file in to our local repo, render it, and it would starting shaping like a blog. This is the more complicated way.

2. We can use an available blog template, create a new local repo and take it from there.

Here is a quick guide.

Blogging contd...

Blogging with Quarto can be done with the use of Git and `GitHub Pages`, or we can also use `PositCloud` instead of GitHub Pages.

As we can see here, a must do step during blogging with GitHub Pages is rendering output directory to `docs` in `_quarto.yml`.

```
project:
  type: website
  output-dir: docs
```

Demo

Important steps for using remote repo are:

1. Installing Git

2. Creating a GitHub account

3. Connecting the local system with remote repo

4. Creating a repository on GitHub

5. Connecting the remote repo with the local one

These steps are important whether or not we are blogging.
For blogging, then of course we need a publisher domain -
which could be GitHub Pages or PositCloud.

Quarto Templates

An example

- Taylor and Francis:

https://github.com/mikemahoney218/quarto-tandf.
Follow on-screen instruction.

- For further info, see Article Templates

Advantages of documentation with Quarto

- Keep your data files and write up files integrated.

- Create re-usable workflow – becomes much easier once we are familiar.

- Use version control to see the previous versions.

- Hide/show R code when appropriate.

- Move ready-made `.qmd` files to a journal template rather than re-formatting the whole manuscript.

- The pdf version is generally appropriate for `PsyArXiv`.

Presentation

Basic slides

- We used the good ol' `.qmd`.

- Add `revealjs` in the format. Or, to make it more elaborate:

```
format:
  revealjs:
    theme: simple
    highlight-style: github
    slide-number: c/t
```

- Further info: https://quarto.org/docs/presentations/

- Demo: let's use the current slides as an example :)

Sharing slides

1. Save as pdf: This option only works with `Google Chrome` as explained here. Or, see below.

Print to PDF

Reveal presentations can be exported to PDF via a special print stylesheet.

> ⓘ **Note**
>
> Note: This feature has only been confirmed to work in Google Chrome and Chromium.

To Print to PDF, do the following:

1. Toggle into Print View using the `E` key (or using the Navigation Menu)
2. Open the in-browser print dialog (CTRL/CMD+P).
3. Change the **Destination** setting to **Save as PDF**.
4. Change the **Layout** to **Landscape**.
5. Change the **Margins** to **None**.
6. Enable the **Background graphics** option.
7. Click **Save** 🎉

Sharing slides

2. Provide the url from the blog/site.

What are the advantages?

Final thoughts

- How I use Quarto: See my repositories

- Getting Help: Awesome Quarto, Quarto website, YouTube, social media.

- Anonymous feedback: please use this link

THE END

References

Perkel, Jeffrey M. 2022. "Cut the Tyranny of Copy-and-Paste with These Coding Tools." *Nature* 603 (7899): 191–92. https://doi.org/10.1038/d41586-022-00563-z.