

# Publishing

# The basics of web hosting

# Files are real

TheVerge

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## File not found

A generation that grew up with Google is forcing professors to rethink their lesson plans

by + Monica Chin  
*Illustrations by Micha Huigen*  
Sep 22, 2021, 8:00 AM EDT

 0 Comments



Monica Chin, "File not found," *The Verge*, September 22, 2021

# Files live on computers



# Websites are files



```
<!DOCTYPE html>
<html>
<head>
  <title>Page title</title>
</head>
<body>
  <h1>A heading</h1>
  <p>Some text</p>
</body>
</html>
```



```
h1 {
  color: "red";
  text-align: center;
  margin-bottom: 10px;
}
```



Other files



```
const listItems = document.querySelectorAll('ul li');

function toggleDone(e) {
  if (!e.target.classList.contains('done')) {
    e.target.classList.add('done');
  } else {
    e.target.classList.remove('done');
  }
}

listItems.forEach((item) => {
  item.addEventListener("click", toggleDone);
});
```

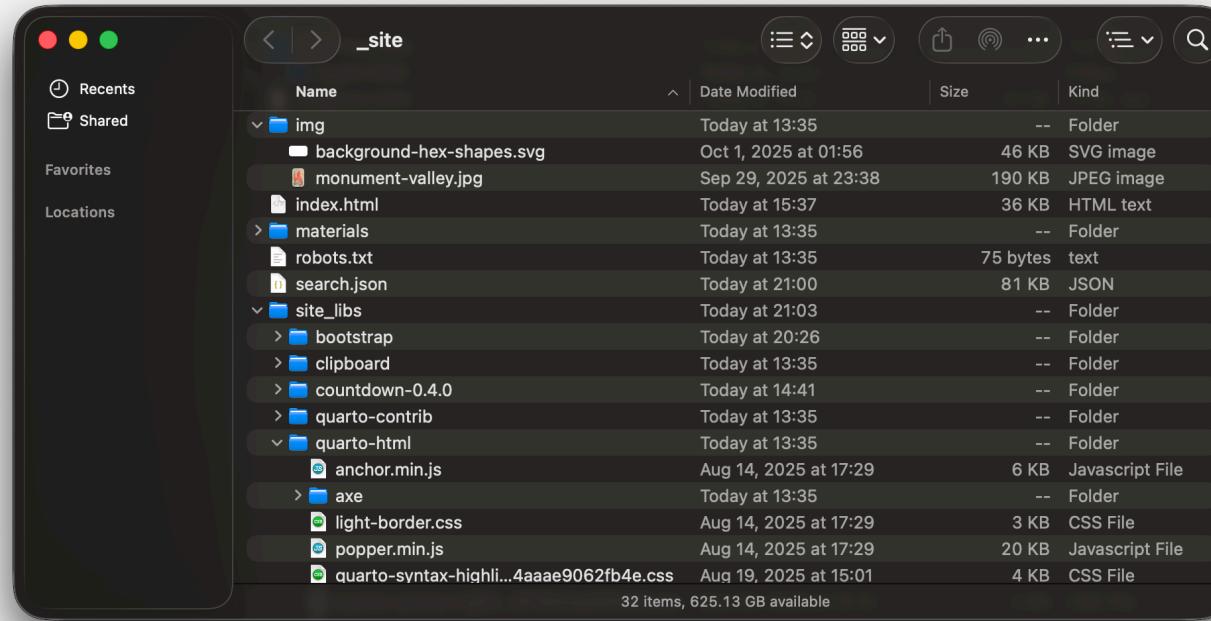
# (Some are databases + files)

The screenshot shows the WordPress dashboard interface. The left sidebar contains navigation links: Home, Updates, Posts, Media, Pages, Comments, Appearance, Plugins, Users, Tools, Settings, and a Collapse menu. The main content area includes:

- Site Health Status**: Shows a green "Good" status with a message about site health and a link to the Site Health screen.
- At a Glance**: Displays 1 Post, 1 Page, and 1 Comment.
- Activity**: Shows a recently published post titled "Hello world!" from "A WordPress Commenter". It also lists recent comments and provides links to manage them.
- Quick Draft**: A form for creating a new draft post, including fields for Title and Content, and a "Save Draft" button.
- WordPress Events and News**: A section listing upcoming events, such as the "WordPress 6.5 Brighton Launch Party" on Tuesday, March 26, 2024, and "Secure Your Site: Join Cambridge WordPress Backups & Security Meetup Apr8th 7pm" on Monday, April 8, 2024.

# Quarto websites are *static*

There's no need for fancy web servers—  
Quarto puts the whole rendered website in `_site/`



Your job is to put that `_site/` on a server.

# Servers

Web servers are computers that (1) store files and (2) show those files as websites to web browsers.

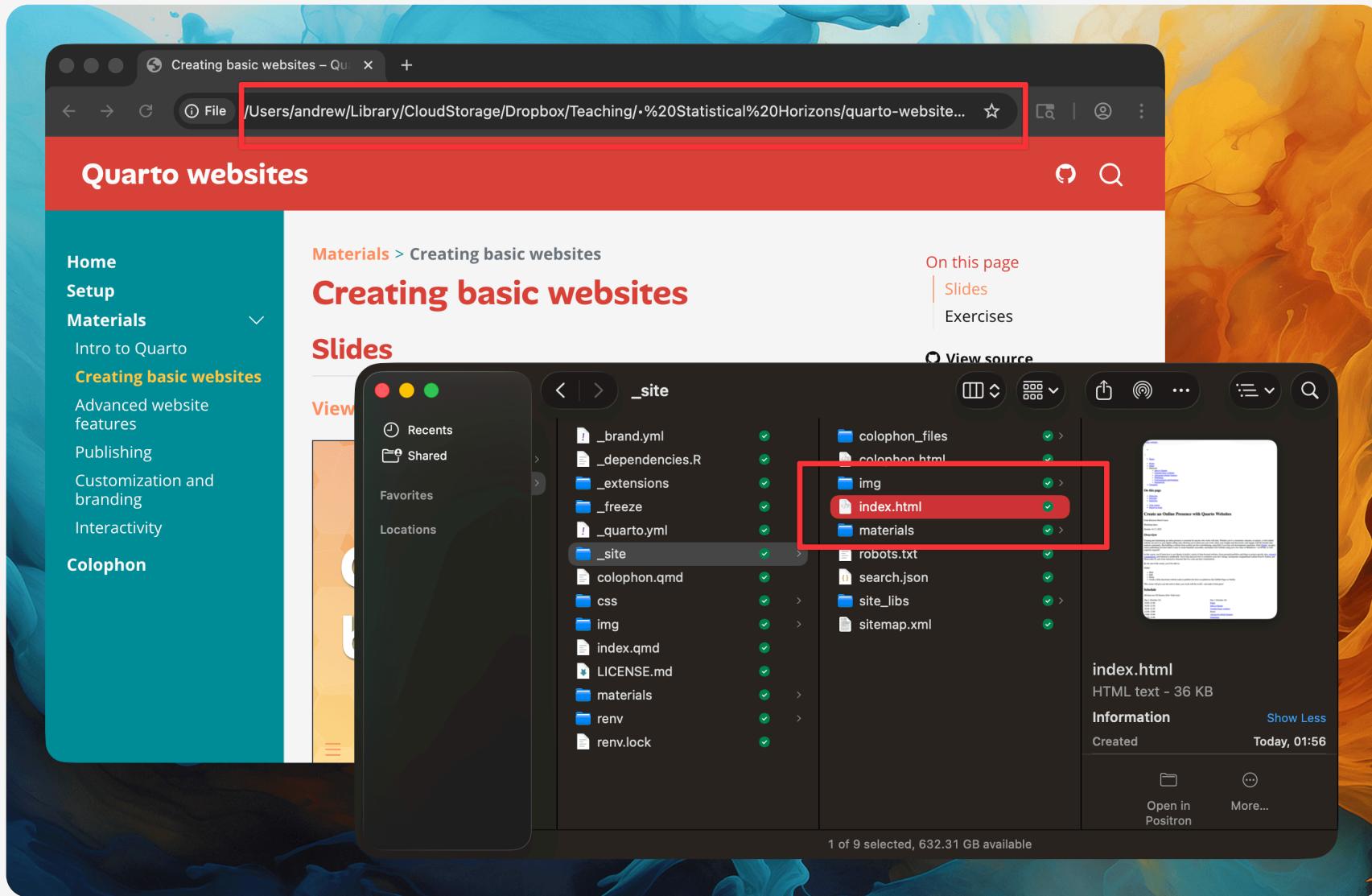


# Local files

file:///Users/andrew/Desktop/example/index.html

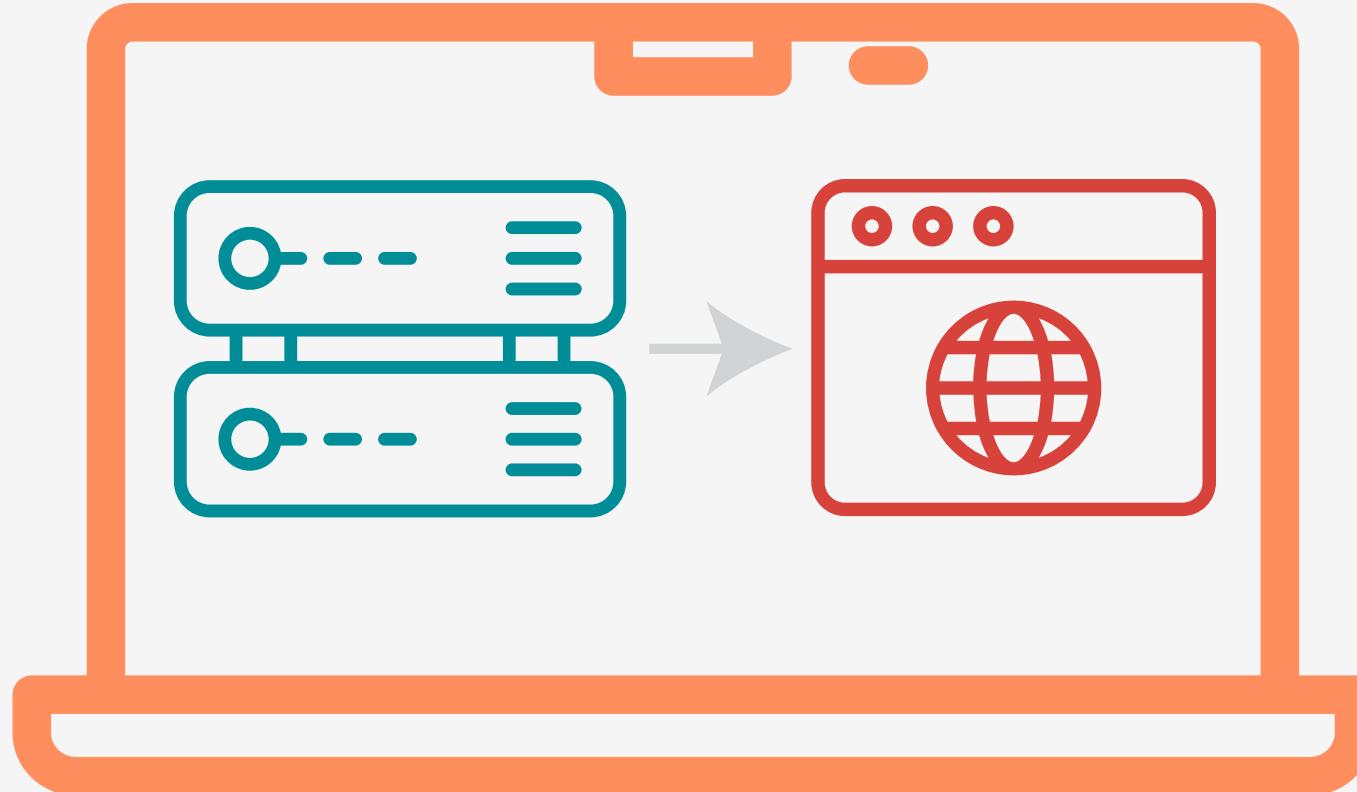


# Local files



# Local server

`http://localhost:3333/`



# Local server





**Stephen A Smith** @stephenasmith

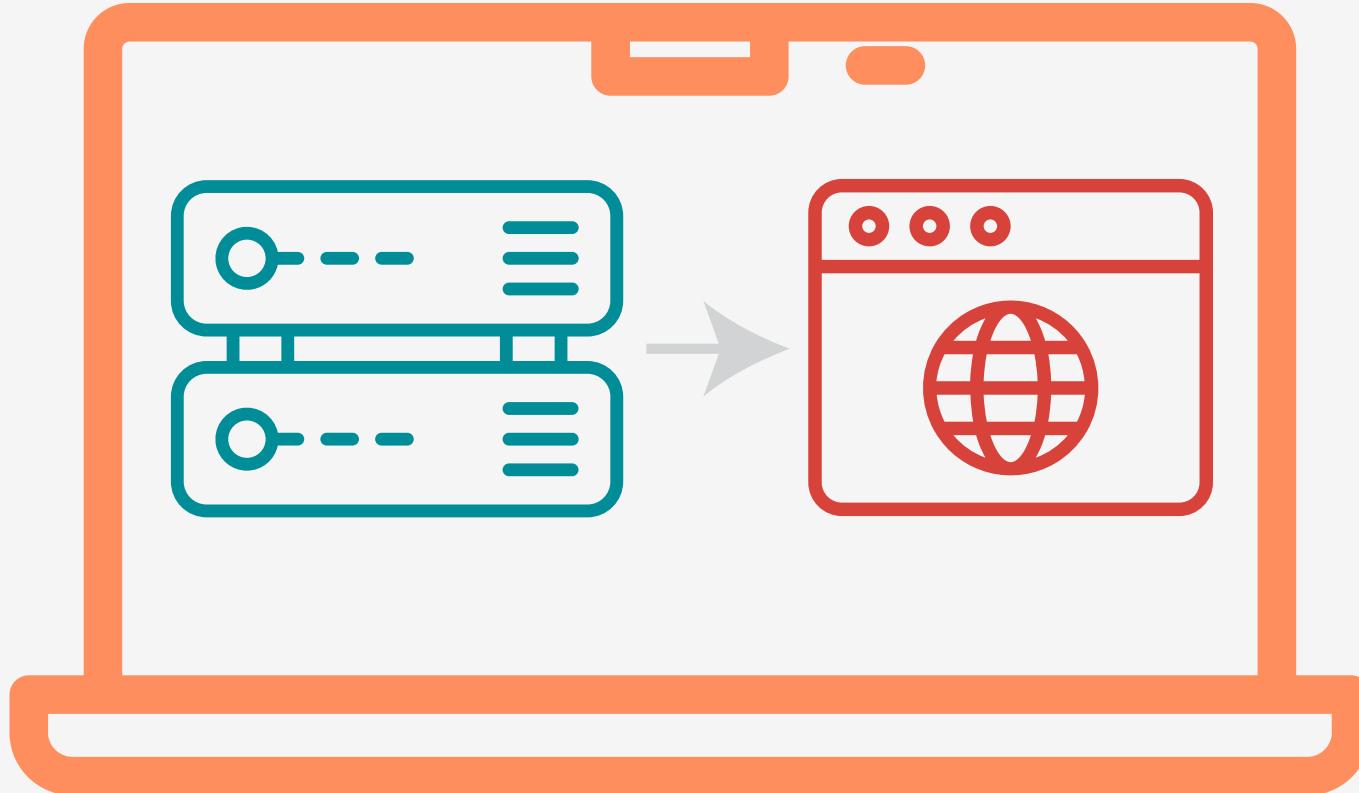
TAke a look, y'all: IMG\_4346.jpeg

10:15 PM · May 26, 2015 · Twitter for iPhone

---

**86.8K** Retweets    **4,939** Quote Tweets    **121K** Likes

# Local server



# Remote server



# Remote server

The screenshot shows a web browser window with a red title bar. The address bar contains the URL `andrewheiss.github.io/quarto-websites_2025-10/materials/basic-websites/`, which is highlighted with a red box. The main content area has a red header with the text "Quarto websites". On the left, a teal sidebar menu lists "Home", "Setup", "Materials" (which is expanded to show "Intro to Quarto", "Creating basic websites" [highlighted in yellow], "Advanced website features", "Publishing", "Customization and branding", and "Interactivity"), and "Colophon". The main content area displays the "Creating basic websites" page under the "Materials > Creating basic websites" navigation. The page title is "Creating basic websites" in large red font, followed by a "Slides" section and a "View slides in full screen" link. A large orange hexagonal background image features the text "Creating basic websites" in white. To the right of the main content, there is a sidebar with "On this page" sections for "Slides" and "Exercises", and links for "View source" and "Report an issue".

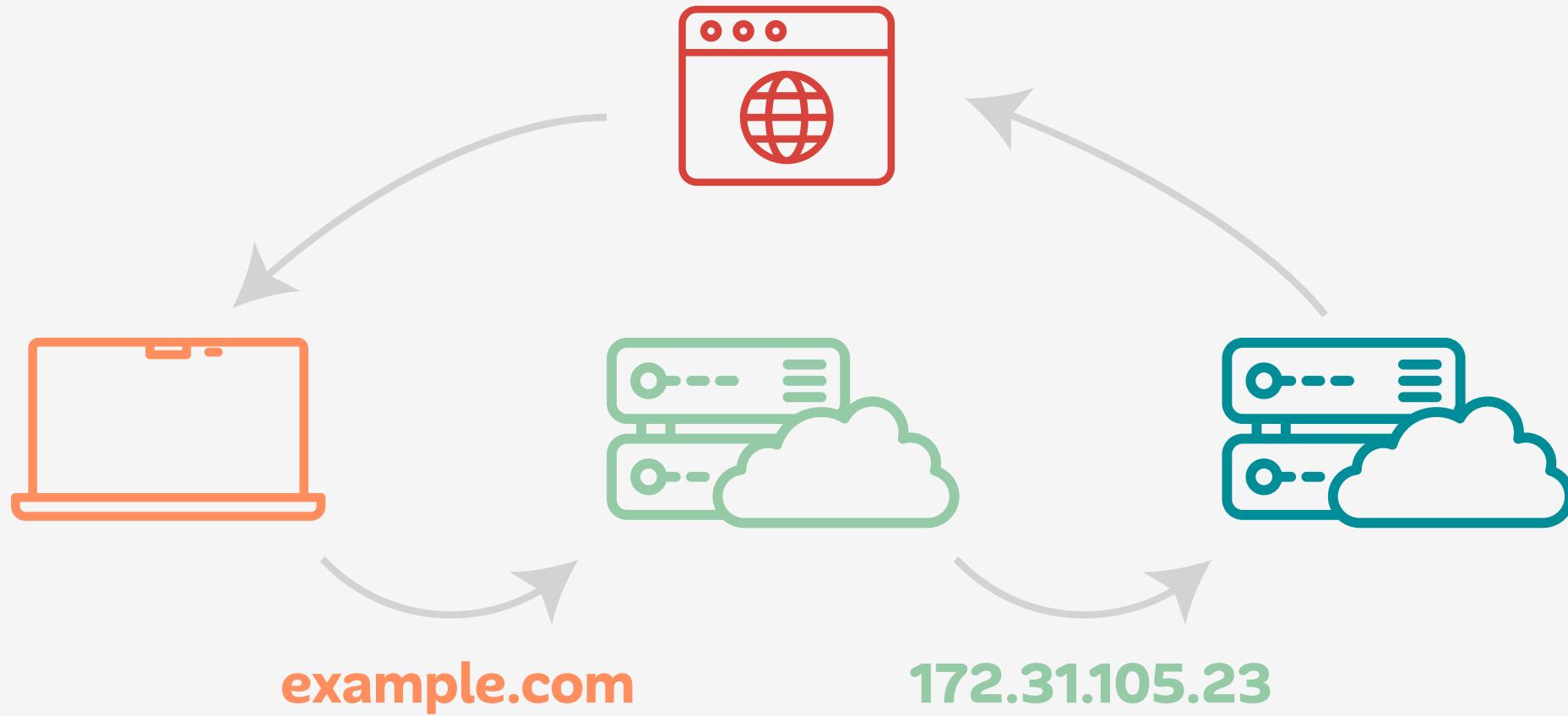
# Domain names

All computers on the internet have IP addresses

`http://8.8.8.8`

Domain names map IP addresses to memorable,  
human-readable names

# Domain names



# Costs

## Server space

Can be free!

Typically \$5+/month

## Domain name

Not free!

\$10-20+/year

iwantmyname		
Domains	Transfer	Plugins
Affiliate	About	Support
andrewheiss.christmas	😊 \$39.00 1st yr	
andrewheiss.compare	😊 \$78.01 1st yr	
andrewheiss.club.tw	😊 \$30.99 1st yr	
andrewheiss.contact	😊 \$26.99 1st yr	
andrewheiss.cooking	😊 \$64.03 1st yr	
andrewheiss.co.at	😊 \$14.99 1st yr	
andrewheiss.courses	😊 \$72.25 1st yr	
andrewheiss.co.gg	😊 \$0.00 1st yr	
andrewheiss.co.je	😊 \$0.00 1st yr	
andrewheiss.co.nl	😊 \$10.99 1st yr	
andrewheiss.co.no	😊 \$29.99 1st yr	
andrewheiss.day	😊 \$29.99 1st yr	

# Quarto hosting options

# Deployment services

Quarto has built-in support for several different hosting services for publishing documents, presentations, dashboards, and websites

The screenshot shows the Quarto documentation website. The top navigation bar includes links for Overview, Get Started, Guide, Extensions, Reference, Gallery, Blog, and Help. The main content area is titled "Publishing Basics" under the "Guide > Publishing > Publishing Basics" path. The left sidebar contains a navigation tree with categories like Guide, Authoring, Computations, Tools, Documents, Presentations, Dashboards, Websites, Books, Manuscripts, Interactivity, and Publishing, with "Publishing Basics" expanded to show sub-links for Quarto Pub, GitHub Pages, Posit Connect, Posit Cloud, Netlify, Confluence, Hugging Face Spaces, Other Services, and Publishing with CI. The main content section starts with an "Overview" heading, followed by a paragraph about the variety of publishing methods available. Below this is a "Getting Started" section with a table comparing three publishing services: Quarto Pub, GitHub Pages, and Posit Connect. The right sidebar provides links for "On this page" (Overview, Getting Started), "Edit this page", and "Report an issue". The footer features social media icons and a "supported by posit" logo.

Destination	Description
<a href="#">Quarto Pub</a>	Publishing service for Quarto documents, websites, and books. Use Quarto Pub when you want a free, easy to use service for publicly available content.
<a href="#">GitHub Pages</a>	Publish content based on source code managed within a GitHub repository. Use GitHub Pages when the source code for your document or site is hosted on GitHub.
<a href="#">Posit Connect</a>	Publishing platform for secure sharing of data products within an organization. Use Posit Connect when you want to publish

<https://quarto.org/docs/publishing/>

## Easy

- **Quarto Pub**: Free!; everything's public; no custom domains
- **Posit Connect**: \$\$; public and private; custom domains

## Medium

- **GitHub Pages**: Free!; everything's public; custom domains
- **Netlify**: Free and paid; public and private; custom domains

## Advanced

- **DIY**: Set up a server yourself and do whatever you want

# What I use

- **Quarto Pub:** [example](#) + [example](#)
- **GitHub Pages:** [example](#) + [example](#) + this very course website!
- **DIY:** [example](#) + [example](#)

# **What we'll do together**

- Quarto Pub
- GitHub Pages

# Deploying with Quarto Pub

# Quarto Pub

<https://quartopub.com/>

- **What:** Free hosting service for all types of Quarto documents, run by Posit
- **When to use:** When you want to publish something on the internet quickly and you don't really care about (1) privacy or (2) the domain name
- **Difficulty level:** The easiest!

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**pinr resources**

**pinr resources**

AUTHOR Andrew Heiss  
Because this is better than an ephemeral Zoom chat...

**pinr resources**  
Last updated 3 days ago

**ARNOVA 2025 proposal**

AUTHORS Suparna Chaudhry, Andrew Heiss  
AFFILIATIONS Lewis and Clark College, Georgia State University  
PUBLISHED May 29, 2025

**Title**  
(15-word limit)  
Civil Society Crackdowns and the Spatial Redistribution of Foreign Aid

**Track**  
Global Civil Society, Social Movements, and Grassroots Associations

**What is your research question or thesis statement?**  
Existing research explores the effect of civil society restrictions on overall

**ARNOVA 2025 proposal**  
Last updated 2 weeks ago

**Escaping inline R chunks**

**New Quarto-style inline chunks**

Quarto uses this syntax for inline chunks, with the language name wrapped in curly braces

```
The value of n is {{r} round(pi, 2)}
```

t that renders to this ↓

```
The value of n is 3.14
```

To show the inline code verbatim, either wrap the {{r}} in double braces:

```
‘{{{{r}} round(pi, 2)}}’ → {{r} round(pi, 2)}
```

Or wrap the expression in an extra set of backticks:

```
‘`{{{{r}} round(pi, 2)}}`’ → `{{r} round(pi, 2)}`
```

**Escaping inline R chunks**  
Last updated 4 weeks ago

**MMs and AMCs**

AUTHOR Andrew Heiss PUBLISHED August 11, 2025

```
library(tidyverse)
library(logit)
library(marginaleffects)
library(loglogit)

yogurt <- logit::yogurt |>
  mutate(feat = feat == 1) |>
  mutate(price_fct = factor(price))
```

**OLS**

**Model**  
It generates negative predicted probabilities but people still love OLS for this kind of stuff, and it's arguably okay-ish ↴

```
model_ols <- lm(choice ~ price_fct + feat + brand, data = yogurt)
```

**MMs and AMCs**  
Last updated last month

**Fuzzy `rdrobust()` stuff**

AUTHOR Andrew Heiss PUBLISHED August 28, 2025

So I think the reviewer is misunderstanding what rdrobust does. It's a nonparametric approach, so it doesn't follow a standard 2SLS pattern. Your equations 1 and 2 are parametric, though, which maybe is throwing the reviewer off.

I didn't go into the details for nonparametric RDD in my class because they're complicated and, as a result, most people don't put the equations in their papers (from what I've seen).

Here's a grossly oversimplified version of the official original version (see p. 2306 at [https://rdpkgs.github.io/references/CaliendoCattaneoTitunik\\_2014\\_ECMA.pdf](https://rdpkgs.github.io/references/CaliendoCattaneoTitunik_2014_ECMA.pdf)), the original paper for nonparametric RDD and the paper everyone cites).

Basically, the fuzzy RDD LATE is the Wald ratio of two discontinuities:

**Fuzzy `rdrobust()` stuff**  
Last updated last month

**Bayesian {marginaleffects}**

AUTHOR Andrew Heiss PUBLISHED August 7, 2025

```
library(tidyverse)
library(marginaleffects)
library(brms)
library(parameters)
library(bayesrules)
library(scales)
library(tidybayes)
```

# Nicer colors and basic theme  
clsrs <- mmaColors::mma.colors("ustwo")  
theme\_set(theme\_bw())

# Get data from `bayesrules` and clean it up a bit  
data(climbers\_sub, package = "bayesrules")  
  
climbers <- climbers\_sub |>  
select(-

**Bayesian {marginaleffects}**  
Last updated 2 months ago

**Session 13 questions**

AUTHOR Andrew Heiss PUBLISHED July 29, 2025

**Sidenotes**  
You don't need to include {magrittr} and {viridis} in your `p_load()` function. {magrittr} gets invisibly loaded by {dplyr}, and {dplyr} gets loaded when you use {tidyverse}, so it's already there. {viridis} gets invisibly loaded by {ggplot2}, and {ggplot2} gets loaded when you use {tidyverse}, so it's also already there.

**Removing legends**  
I notice that to remove guides we have used 3 types of codes e.g.,

**A dashboard that is a dashboard**



**A dashboard that's not a dashboard**

**Row**

```
library(tidyverse)
ggplot(mpg, aes(x = displ, y = hwy)) +
  geom_point()
```



# How to publish

1. Go to [quartopub.com](https://quartopub.com) and create a free account.  
Make sure you're logged in.
2. In the terminal, run this:

```
Terminal
```

```
quarto publish
```

3. Select Quarto Pub and press enter. Answer all the other questions.
4. Wait for the site to render and upload.
5. Done!

# Other details

- To update the site later, run `quarto publish` in the terminal again.
- Manage other site settings at your [quartopub.com](https://quartopub.com) dashboard.

# Your turn

Publish your playground website to Quarto Pub.

1. Go to [quartopub.com](https://quartopub.com) and create a free account.  
Make sure you're logged in.
2. In the terminal, run this:

Terminal

```
quarto publish
```

3. Select Quarto Pub and press enter. Answer all the other questions.
4. Wait for the site to render and upload.

07 : 00

# Deploying with GitHub Pages

# GitHub Pages

- **What:** Free hosting service for repositories hosted on GitHub
- **When to use:** When you want a (free) longer term hosting solution (with a custom domain if you want) and you're already using GitHub for version control
- **Difficulty level:** Medium

[Complete documentation](#)

# Three ways; three difficulties

1. **Easy:** Render your site to `docs/` and include that folder in your git repository.
2. **Medium:** Use the `quarto publish` terminal command to render the site and push it to a `gh-pages` branch.
3. **Hard:** Use GitHub Actions to build an on-the-fly virtual computer that remotely rebuilds and publishes your site every time you commit to your repository.

We're going to do Option 1!

# Some git knowledge required



General version control



Remote version control  
hosting + collaboration

## Helpful resources:

- [GitHub's Hello World tutorial](#)
- [Happy Git with R](#)

# Interacting with git

GitHub Desktop

RStudio

Positron / VS Code

Terminal

The screenshot shows the GitHub Desktop application interface. The top bar displays the current repository as "snoopy-spring", the current branch as "main", and the push status to "origin" with the message "Last fetched 6 da...". The main window has tabs for "Changes" and "History", with "Changes" selected. A list of commits is shown on the left, all made by "Andrew Heiss" 10-11 days ago. The right side shows a detailed diff view for a file named "index.qmd". The diff highlights changes in the "date" field from "2025-09-23" to "2025-09-25". The code editor shows the JSON-like structure of the file, with lines 4 and 45 being the ones modified.

```
@@ -1,7 +1,7 @@
 1 | 1 ---  
 2 | 2 title: "Statistical Methods in Public Policy Research"  
 3 | 3 subtitle: "Chapter for the *Oxford Research Encyclopedia on Pu  
 blic Policy*"  
 4 | 4 - date: 2025-09-23  
 4 | 4 + date: 2025-09-25  
 5 | 5 author:  
 6 | 6 - name: Andrew Heiss  
 7 | 7 affiliations:  
 34 | 34 @> -34,6 +34,14 @> keywords:  
 35 | 35  
 36 | 36  
 37 | 37 - causal inference  
 38 | 38 - prediction  
 39 | 39 + format:  
 40 | 40 + wordcount-html:  
 41 | 41 + other-links:  
 42 | 42 - text: Further reading  
 43 | 43 + href: further-reading.html  
 44 | 44 + hikmah-pdf: default  
 45 | 45 + docx: default  
 46 | 46 params:  
 37 | 37 wordcount: |
```

# Basic workflow

1. Make changes
2. Commit changes to lock them in
3. Push commits to remote server

*Advanced stuff you don't have to worry about:* branches, collaboration, pull requests, etc.

# .gitignore

Use `.gitignore` to hide things from git.



## General rules

**Commit things that make outputs; don't commit outputs themselves.**

**Don't commit user-specific things (or passwords!)**

### .gitignore

```
1 .Rproj.user
2 .Rhistory
3 .RData
4 .Ruserdata
5
6 data/private-data.csv
7 output/*.png
8 all_my_passwords.txt
```

# How to publish

## Part 1: Get your project code on GitHub

1. Go to [github.com](https://github.com) and create a free account.
2. Add a `.gitignore` file to your website project with this:

```
.gitignore
1 .Rproj.user
2 .Rhistory
3 .RData
4 .Ruserdata
5
6 /_site/
```

3. Initialize a git repository for your website project.
4. Commit the files and push to GitHub.

# How to publish

## Part 2: Tell Quarto to use GitHub Pages

5. Change the `output-dir` option in `_quarto.yml` to `docs`.

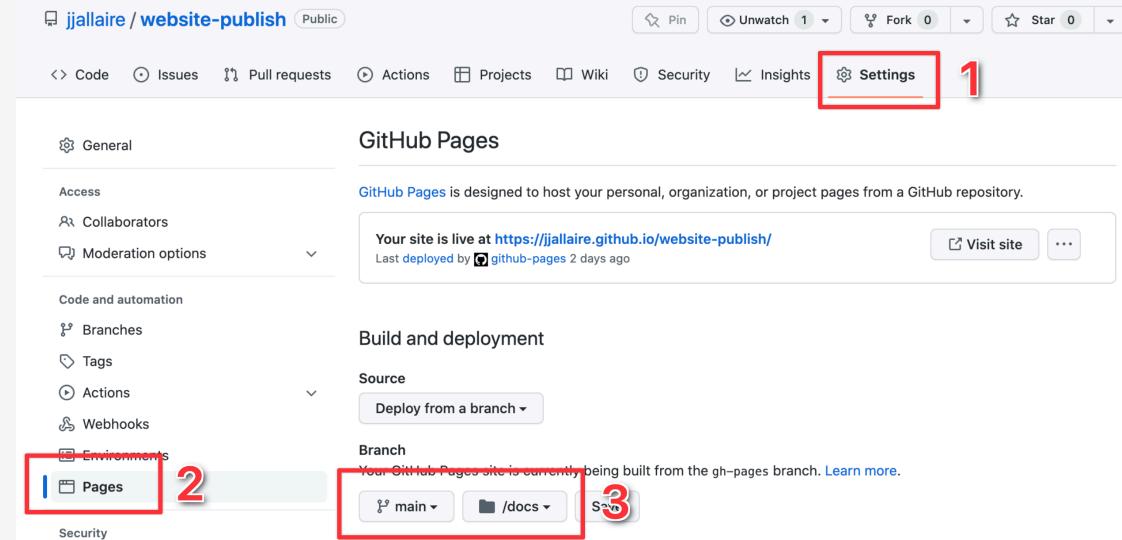
```
_quarto.yml
project:
  type: website
  output-dir: docs
```

6. Add an empty file named `.nojekyll` to the root of your website project (this tells GitHub to not run its own static site generator).
7. Render your site.
8. Commit the newly created `docs/` folder and `.nojekyll` file and push to GitHub.

# How to publish

## Part 3: Tell GitHub Pages to serve your site

9. From your GitHub repository, go to Settings > Pages and configure the repository to publish from the `docs` directory of your `main` branch.



10. Wait for GitHub to build and deploy the site.

# Other details

- To update the site later, render the site, commit to GitHub, and wait for the site to rebuild.  
Track the progress under the “Actions” section of your GitHub repository.
- Add a custom domain at Settings > Pages

# Your turn, part 1

## Get your project code on GitHub

1. Go to [github.com](https://github.com) and create a free account.
2. Add a `.gitignore` file to your website project with this:

```
.gitignore
1 .Rproj.user
2 .Rhistory
3 .RData
4 .Ruserdata
5
6 /_site/
```

3. Initialize a git repository for your website project.
4. Commit the files and push to GitHub.

10:00

# Your turn, part 2

## Tell Quarto to use GitHub Pages

5. Change the `output-dir` option in `_quarto.yml` to `docs`.

```
_quarto.yml
project:
  type: website
  output-dir: docs
```

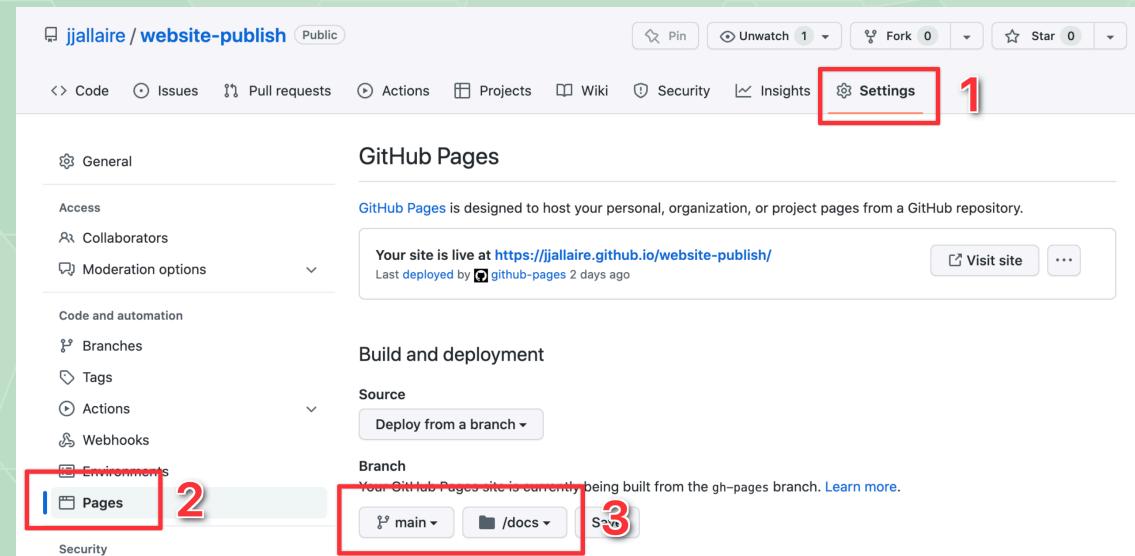
6. Add an empty file named `.nojekyll` to the root of your website project (this tells GitHub to not run its own static site generator).
7. Render your site.
8. Commit the newly created `docs/` folder and `.nojekyll` file and push to GitHub.

10:00

# Your turn, part 3

## Tell GitHub Pages to serve your site

- From your GitHub repository, go to Settings > Pages and configure the repository to publish from the `docs` directory of your `main` branch.



- Wait for GitHub to build and deploy the site.

10:00



# Course outline

-  ~~Intro to Quarto~~
-  ~~Creating basic websites~~
-  ~~Advanced website features~~
-  ~~Publishing~~
- Customization and branding
- Interactivity