

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);
});
```

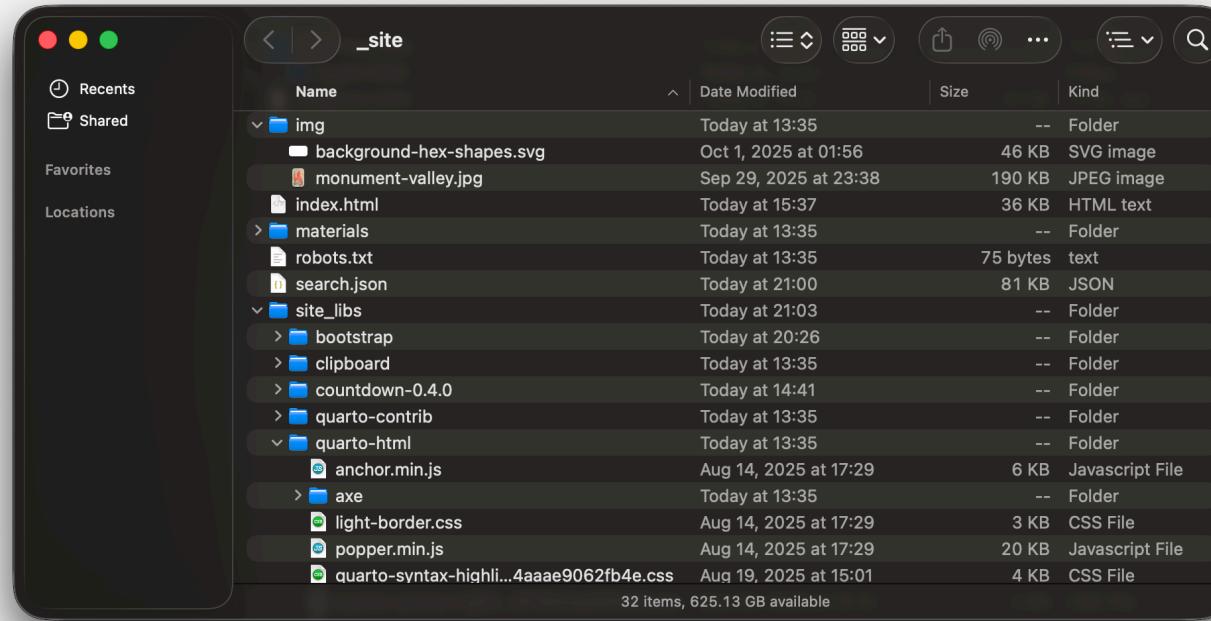
(Some are databases + files)

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.

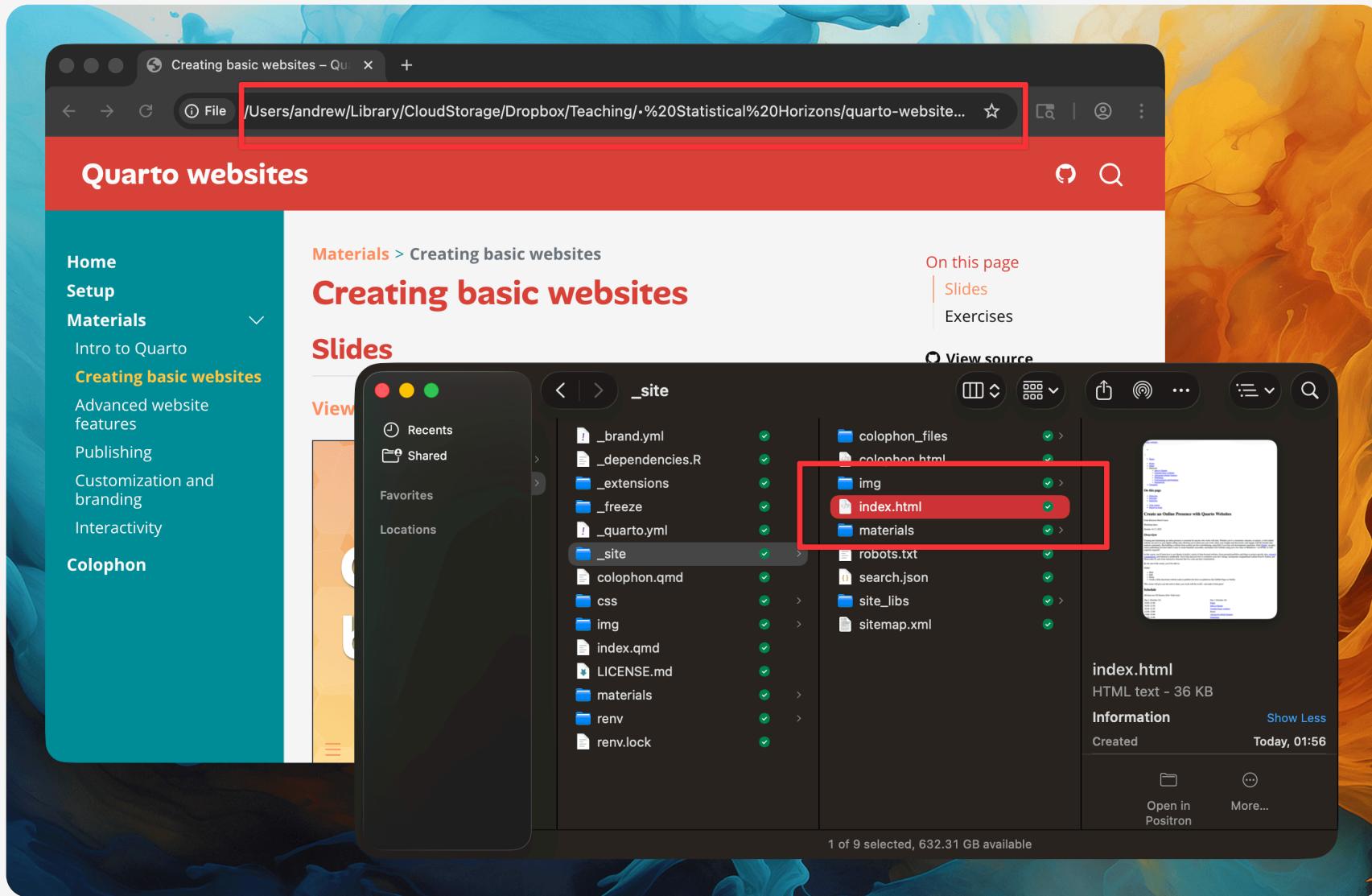


Local files

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

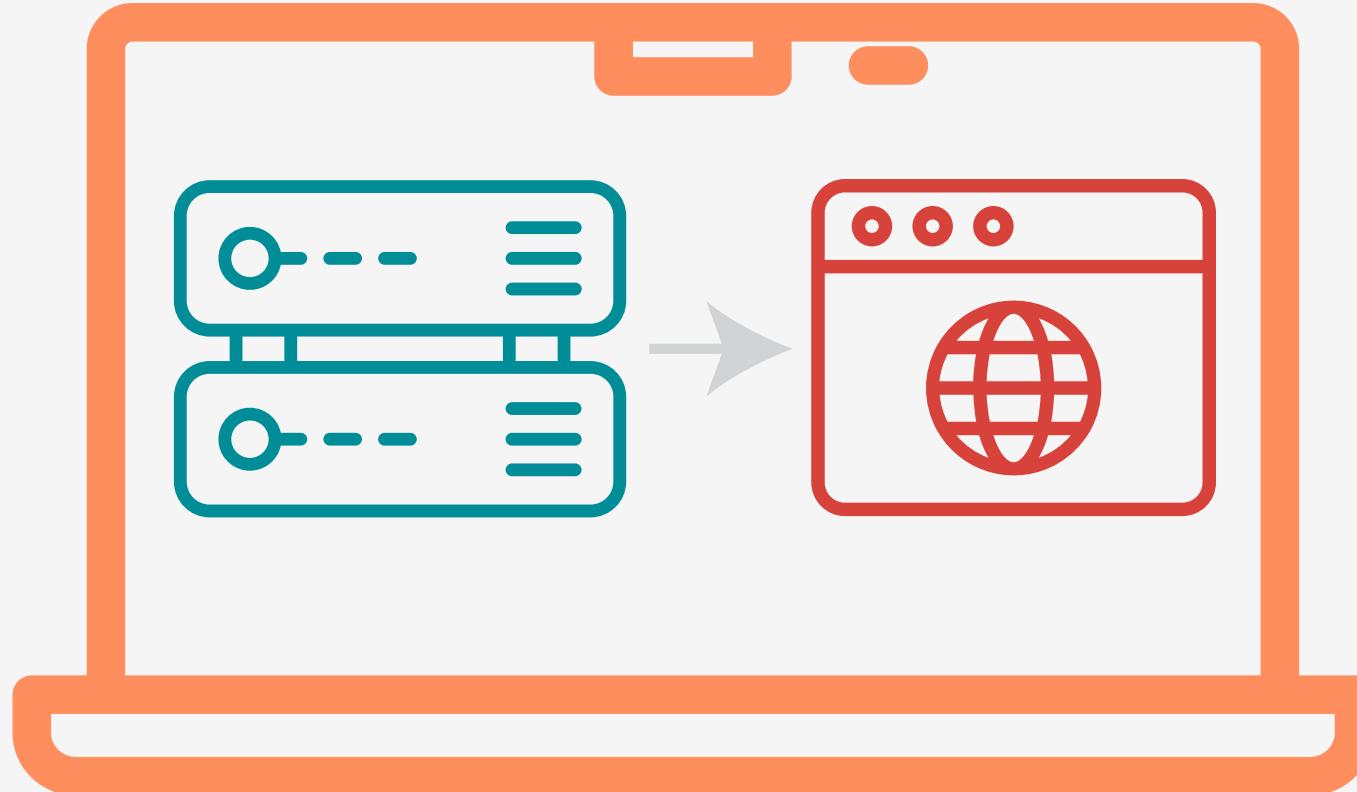


Local files



Local server

`http://localhost:3333/`



Local server





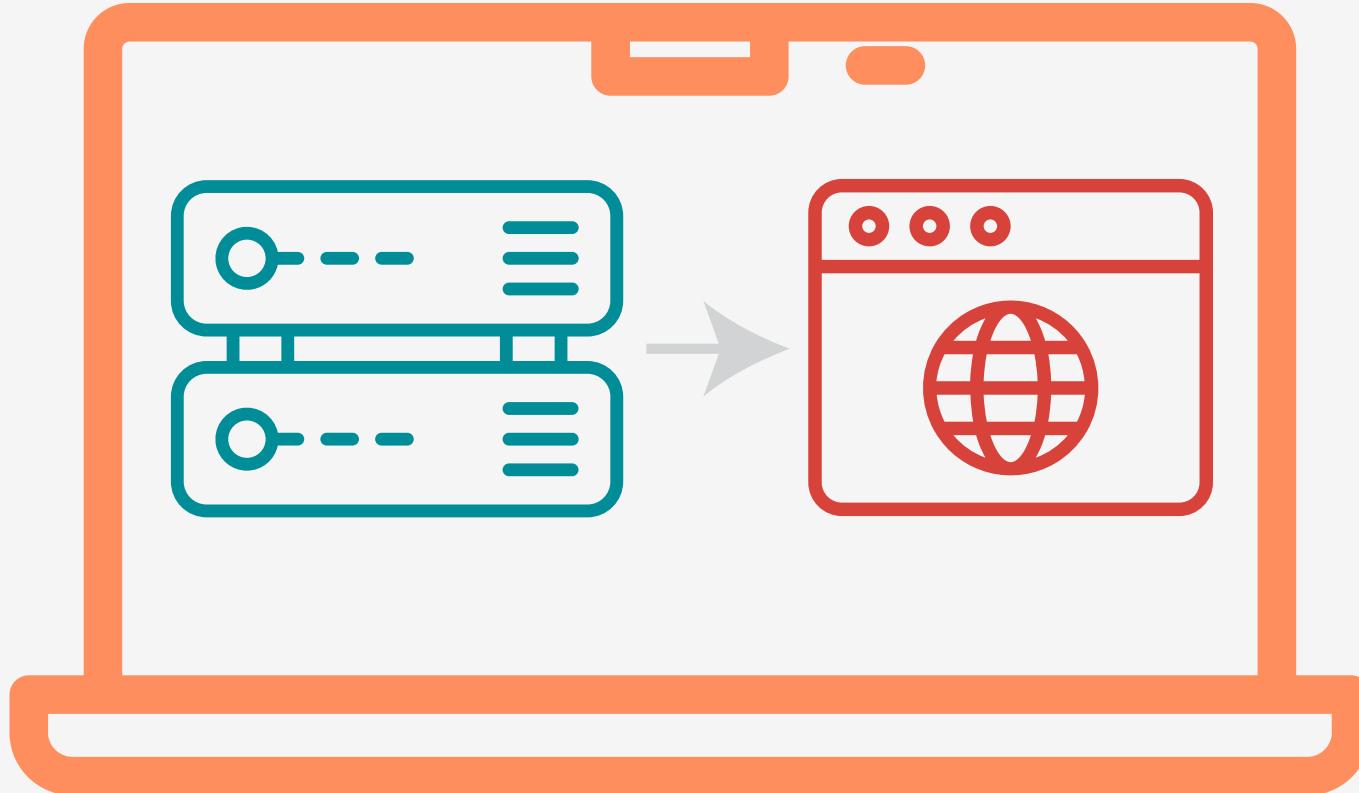
Stephen A Smith @stephenasmith

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, there is a teal sidebar menu with the following items:

- Home
- Setup
- Materials
 - Intro to Quarto
 - Creating basic websites** (highlighted in yellow)
 - Advanced website features
 - Publishing
 - Customization and branding
 - Interactivity
- Colophon

The main content area displays the page "Creating basic websites" under the "Materials > Creating basic websites" navigation. The page title is "Creating basic websites" in large red font. Below it is a section titled "Slides" with a link "View slides in full screen". The background of the slide area features a hexagonal pattern with a gradient from orange to red. The text "Creating basic websites" is overlaid on this background in large white font.

On the right side of the page, there is a sidebar with the following options:

- On this page
 - Slides
 - Exercises
- [View source](#)
- [Report an issue](#)

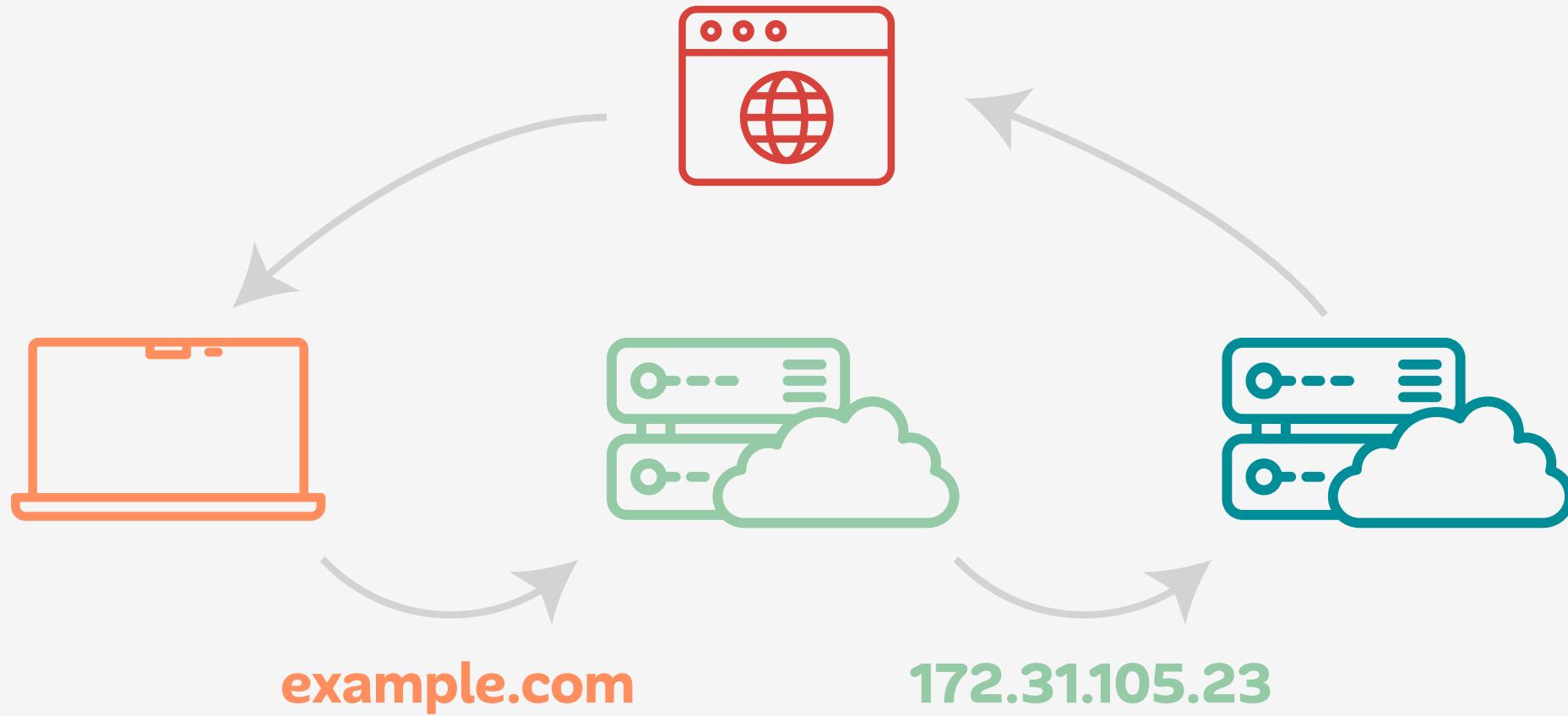
Domain names

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 due to Quarto's standard format support. It then moves to a "Getting Started" section, which lists three services: Quarto Pub, GitHub Pages, and Posit Connect, each with a brief description and a link to its documentation.

Guide > Publishing > Publishing Basics

Publishing Basics

Overview

There are a wide variety of ways to publish documents, presentations, and websites created using Quarto. Since content rendered with Quarto uses standard formats (HTML, PDFs, MS Word, etc.) it can be published anywhere. Additionally, there is a [quarto publish](#) command available for easy publishing to various popular services (GitHub, Netlify, Posit Connect, etc.) as well as various tools to make it easy to publish from a Continuous Integration (CI) system.

Getting Started

To get started, review the documentation for using one of the following publishing services:

Destination	Description
Quarto Pub	Publishing service for Quarto documents, websites, and books. Use Quarto Pub when you want a free, easy to use service for publicly available content.
GitHub Pages	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.
Posit Connect	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!

[Complete documentation](#)


 sort by: **Newest** ▾

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

Table of contents

- Title
- Track
- What is your research question or thesis statement?
- Abstract
- Narrative description
- References

Other formats



GitHub (PDF)

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(logistf)

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/Calonico-Cattaneo-Titunik_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

Row

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

A dashboard that's not a dashboard

Row

```
library(tidyverse)
```

How to publish

1. Go to 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 dashboard.

Your turn

Publish your playground website to Quarto Pub.

1. Go to 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](#)

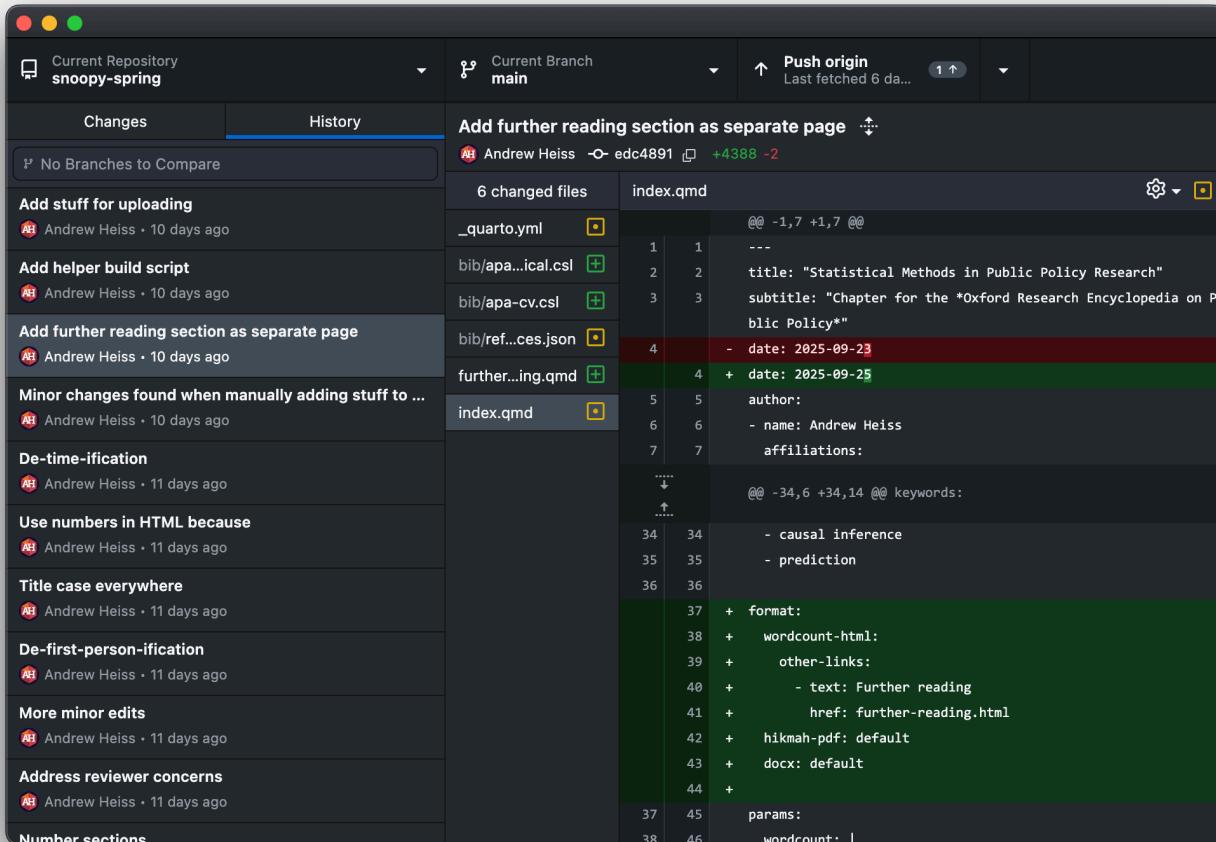
Interacting with git

GitHub Desktop

RStudio

Positron / VS Code

Terminal



The screenshot shows the GitHub Desktop application interface. At the top, there are three dropdown menus: "Current Repository" set to "snoopy-spring", "Current Branch" set to "main", and "Push origin" with a status message "Last fetched 6 da...". Below these are four tabs: "Changes" (selected), "History", "Add stuff for uploading", and "Add helper build script". The "Changes" tab displays a list of commits from "Andrew Heiss" made 10 days ago, including "Add further reading section as separate page", "Minor changes found when manually adding stuff to ...", "De-time-ification", "Use numbers in HTML because", "Title case everywhere", "De-first-person-ification", "More minor edits", "Address reviewer concerns", and "Number sections". The main pane shows a diff view of a file named "index.qmd". The left margin shows line numbers 1 through 46. The right margin shows the corresponding line numbers. The diff highlights changes in the file, such as the date being updated from "2025-09-23" to "2025-09-25". The code editor shows the following snippet:

```
@@ -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
 4 4 blic Policy*"
 5 5 - date: 2025-09-23
 6 6 + date: 2025-09-25
 7 7 author:
 8 8 - name: Andrew Heiss
 9 9 affiliations:
 10 10 @@ -34,6 +34,14 @@
 11 11 keywords:
 12 12 - causal inference
 13 13 - prediction
 14 14 +
 15 15 + format:
 16 16 + wordcount-html:
 17 17 + other-links:
 18 18 + - text: Further reading
 19 19 + href: further-reading.html
 20 20 + hikmah-pdf: default
 21 21 + docx: default
 22 22 +
 23 23 params:
 24 24 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 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`.

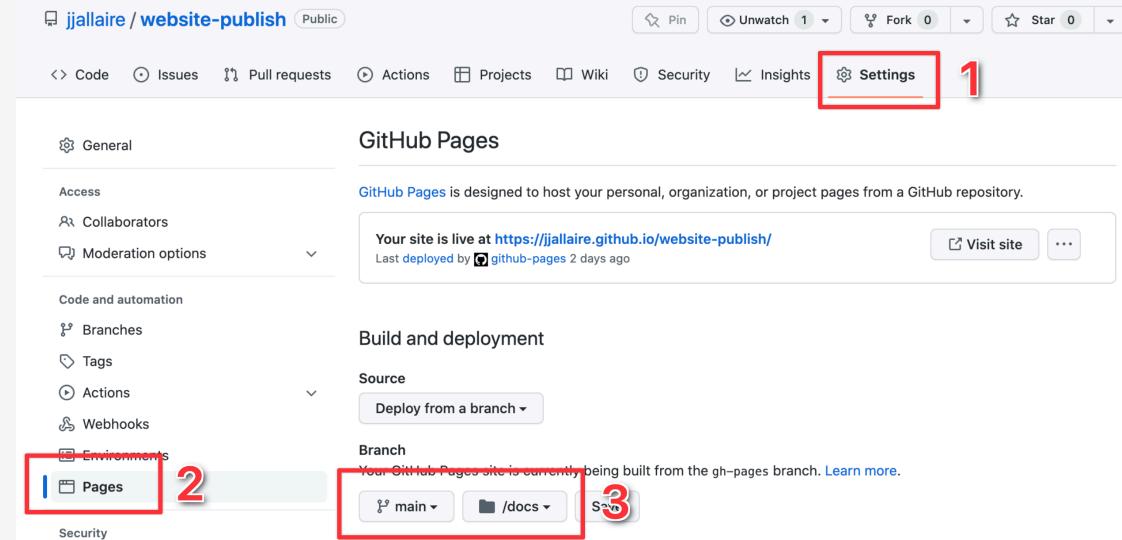
```
_quarto.yml
project:
  type: website
  output-dir: docs
```

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 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 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
```

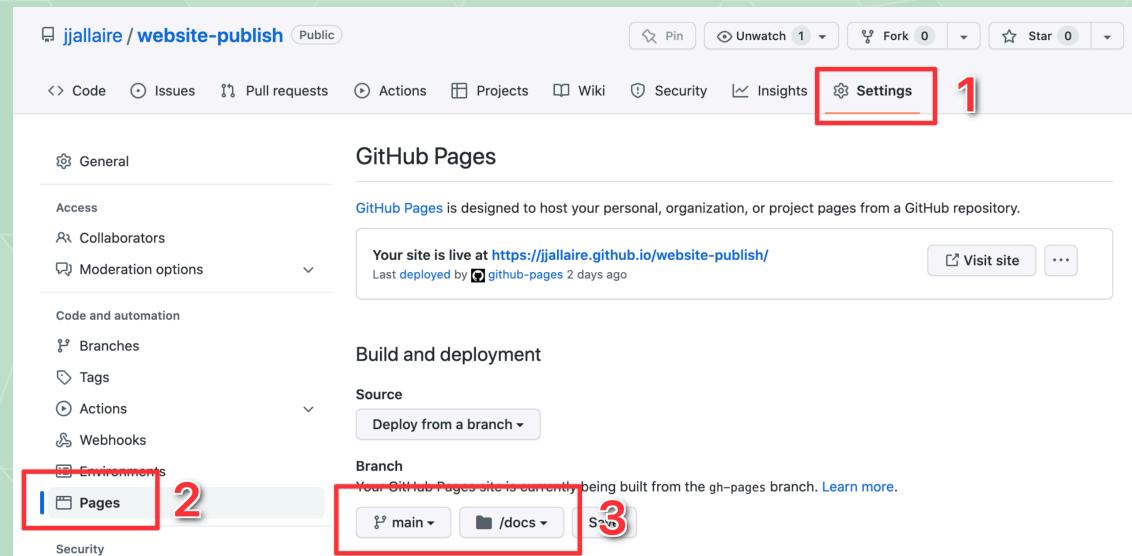
6. Add an empty file named `.nojekyll` to the root of your website project (this tells GitHub to not run its own static site generator).
7. Render your site.
8. Commit the newly created `docs/` folder and push to GitHub.

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