

Sports Blogging

R Ladies, Cape Town 2018

About Me

- Senior Data Scientist for Tennis Australia's Game Insight Group
- Research Fellow at Victoria University
- Tennis Blogger at on-the-t.com
- @StatsOnTheT



I get to help make cool stuff like this...



On The T

STATS ON THE T

DEDICATED TO DATA, STATISTICS, AND TENNIS



ABOUT CONTACT FEATURES RESEARCH SOFTWARE

SEARCH...

Is Tiafoe's win in Delray Beach only the beginning?

🕒 March 03, 2018

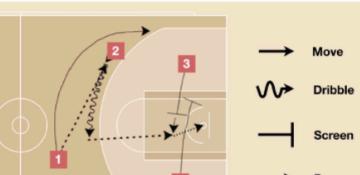
One of the more interesting ATP results this February was 20-year-old Francis Tiafoe's title win at Delray Beach. What should we expect from Tiafoe after his first tour-level trophy at such a young age?



Research Highlights from 2018 MIT Sloan Analytics Conference

🕒 February 28, 2018

This week the MIT Sloan Analytics Conference will showcase



RECENT POSTS

- Is Tiafoe's win in Delray Beach only the beginning?
- Research Highlights from 2018 MIT Sloan Analytics Conference
- AO to AI Hackathon Winners Announced
- Slam Seeding - Is 16 Better than 32?
- Is Slam Momentum a Thing?
- The Odds Are Against Quick Comebacks
- Forecasting the Women's 2018 Australian Open
- Forecasting the Men's

1 Reminder

Getting There

Getting There

- Starting a blog might seem overwhelming but, if you know R and some basic CSS, it's easy

Getting There

- Starting a blog might seem overwhelming but, if you know R and some basic CSS, it's easy
- Producing interesting content is the tough part about blogging

Getting There

- Starting a blog might seem overwhelming but, if you know R and some basic CSS, it's easy
- Producing interesting content is the tough part about blogging
- R helps to let you focus on *content* by providing easy-to-use tools that solve the technical details of going from code to the Web

Blogdown

Blogdown

- Package for writing a blog in R

Blogdown

- Package for writing a blog in R
- Create content with R markdown

Blogdown

- Package for writing a blog in R
- Create content with R markdown
- Generate site with Hugo

Blogdown

- Package for writing a blog in R
- Create content with R markdown
- Generate site with Hugo
- Deploy on Github, Netlify, or other hosting services

Blogdown

- Package for writing a blog in R
- Create content with R markdown
- Generate site with Hugo
- Deploy on Github, Netlify, or other hosting services
- Authored by Yihui Xie (who is at the conference!)

What is Hugo?

Hugo is a static Web site generator with heaps of custom themes that make it simple to create a beautiful site.

<https://themes.gohugo.io>

About Hugo

- Hugo works with any operating system in the same way
- It handles many pages of content efficiently
- Hugo (like R) also has a very active user community
- *However*, Hugo is intended only for static sites where HTML content is fixed no matter what the user behavior

Starting with Blogdown

Install from CRAN:

```
install.packages("blogdown")
```

Start reading the full book about working with Blogdown at
<https://bookdown.org/yihui/blogdown/>

Key Functions

Here are the major functions of `blogdown`.

Function	Description
<code>install_hugo</code>	Downloads and installs Hugo
<code>install_theme</code>	Downloads a Hugo theme from github
<code>build_site</code>	Compiles Rmd files and builds the site
<code>html_page</code>	Renders an Rmd file as an HTML that can be read by Hugo
<code>hugo_cmd</code>	Run Hugo commands
<code>new_content</code>	Creates new file in working directory
<code>new_site</code>	Creates environment for new site
<code>serve_site</code>	Preview working version of your site

Example Workflow

1. Create a repo for your blog on Github (you need to have an account).
Here is my example:

Example Workflow

1. Choose a directory for your repo and clone it there. Here, I put my repo under the path /Software:

```
[taws-53211:Software skovalchik$ git clone https://github.com/skoval/sports-blog.git
Cloning into 'sports-blog'...
warning: You appear to have cloned an empty repository.
Checking connectivity... done.
taws-53211:Software skovalchik$ ]
```

Set Server Daemon

Set Server Daemon

- By default, when running your site locally, your R session will be blocked

Set Server Daemon

- By default, when running your site locally, your R session will be blocked
- To prevent this, you can use change your options
`options(servr.daemon = FALSE)`

Set Server Daemon

- By default, when running your site locally, your R session will be blocked
- To prevent this, you can use change your options
`options(servr.daemon = FALSE)`
- You can do this at the start of each blogging session

Set Server Daemon

- By default, when running your site locally, your R session will be blocked
- To prevent this, you can use change your options
`options(servr.daemon = FALSE)`
- You can do this at the start of each blogging session
- *Or* fix it permanently in your `.Rprofile` file

Example Workflow

1. In R, load `blogdown`
2. Install Hugo
3. `setwd` into the repo directory and create a new site

```
library(blogdown)

install_hugo() # On a Mac you need homebrew

options(servr.daemon = FALSE) # If not in Rprofile

# setwd() to blog directory

new_site()
```

Starting Site

You should see a browser open with the following default layout:

Site Folders

Also, if you look under your blog repo, you will see that a number of new folders were created. These are all the elements needed to get your site up and running.

Choosing a New Theme

- The default theme for the site is `Lithium`
- To set your own style, you can choose from hundreds of other themes at themes.gohugo.io
- When you find one you like you can add it to your site with `install_theme`

Example: Install Theme

In this example, I add theme mainroad:

```
install_theme('vimux/mainroad',
  theme_example = TRUE,
  update_config = TRUE
)
```

Example: Install Theme

I can preview the site with the `serve_site`. Here is what the new theme looks like:

The screenshot shows a website with the title "MAINROAD" and subtitle "JUST ANOTHER SITE". The navigation bar includes links for "JEKYLL MIGRATION", "(HU)GO TEMPLATE PRIMER", "ABOUT HUGO", and "GETTING STARTED WITH HUGO". The main content area features a post titled "Creating a New Theme" from September 28, 2014, which discusses how to create a simple theme in Hugo. Below it is another post titled "Migrate to Hugo from Jekyll" from March 10, 2014, which provides instructions for migrating static content. To the right, there is a search bar and a "RECENT POSTS" sidebar listing several other posts.

MAINROAD

JUST ANOTHER SITE

JEKYLL MIGRATION (HU)GO TEMPLATE PRIMER ABOUT HUGO GETTING STARTED WITH HUGO

Creating a New Theme

⌚ September 28, 2014

Introduction This tutorial will show you how to create a simple theme in Hugo. I assume that you are familiar with HTML, the bash command line, and that you are comfortable using Markdown to format content. I'll explain how Hugo uses templates and how you can organize your templates to create a theme. I won't cover using CSS to style your theme. We'll start with creating a new site with a very basic template.

Migrate to Hugo from Jekyll

⌚ March 10, 2014

Move static content to static Jekyll has a rule that any directory not starting with _ will be copied as-is to the _site output. Hugo keeps all static content under static. You should therefore move it all there. With Jekyll, something that looked like ▾ <root>/ ▾ images/ logo.png should become ▾ <root>/ ▾ static/ ▾ images/ logo.png Additionally, you'll want any files that should reside at the root (such as CNAME) to be

SEARCH...

RECENT POSTS

Creating a New Theme

Migrate to Hugo from Jekyll

A Plain Markdown Post

Hello R Markdown

Locale Ipsum

(Hu)go Template Primer

Getting Started with Hugo

Configuring Site

In your blog repo, you will see a `config.toml` file. This is where you can update the elements on your main page (which will be `index.html`). Below I've highlighted some fields to update with the Mainroad config file.

New Configuration

Updated Site

STATS ON THE T

DEDICATED TO DATA, STATISTICS, AND TENNIS

JEKYLL MIGRATION

(HU)GO TEMPLATE PRIMER

ABOUT HUGO

GETTING STARTED WITH HUGO

About Hugo

⌚ April 09, 2014

Hugo is a static site engine written in Go.

It makes use of a variety of open source projects including:

- [Cobra](#)
- [Viper](#)
- [J Walter Weatherman](#)
- [Cast](#)

Learn more and contribute on [GitHub](#).

Setup

Some fun facts about [Hugo](#):

- Built in [Go](#)
- Loosely inspired by [Jekyll](#)

SEARCH...

RECENT POSTS

[Creating a New Theme](#)

[Migrate to Hugo from Jekyll](#)

[A Plain Markdown Post](#)

[Hello R Markdown](#)

[Lorem Ipsum](#)

[\(Hu\)go Template Primer](#)

[Getting Started with Hugo](#)

CATEGORIES

[Development](#)

22 / 49

Creating New Post

You can generate new posts in R markdown (or markdown) files using `new_post`. Here is an example.

```
new_post(  
  title = "French Open 2017",  
  kind = "default"  
)
```

Creating a New Post

This will open an editor, where you can enter any additional meta-data and start to create content, just like you would with R markdown.

A screenshot of a Mac OS X desktop environment showing a text editor window. The window title is "content/post/2017-05-30-french-open-2017.md". The menu bar includes standard OS X icons for red, yellow, and green circles, and a "Help search" button. The main pane of the editor shows the following R Markdown code:

```
1 ---  
2 title: French Open 2017  
3 author: Stephanie Kovalchik  
4 date: '2017-05-30'  
5 slug: french-open-2017  
6 categories: []  
7 tags: []  
8 description: ''  
9 thumbnail: ''  
10 ---  
11  
12 |
```

The code consists of two sections separated by a triple dash. The first section contains metadata: title, author, date, slug, categories, tags, description, and thumbnail. The second section is a blank line.

Location of New Post

The post will exist under the `content/post` folder.

Name	Date Modified
2015-01-01-lorem-ipsum.md	Today, 10:54 AM
2015-07-23-r-rmarkdown.html	Today, 10:54 AM
2015-07-23-r-rmarkdown.Rmd	Today, 10:54 AM
2016-12-30-hello-markdown.md	Today, 10:54 AM
2017-05-30-french-open-2017.md	Today, 11:32 AM
creating-a-new-theme.md	Today, 10:54 AM
goisforlovers.md	Today, 10:54 AM
hugoisforlovers.md	Today, 10:54 AM
migrate-from-jekyll.md	Today, 10:54 AM

Site Update

If you have your interactive session open, the site will automatically update with the post.

Deploying

1. When you are ready to publish your site, you can use the `build_site(local = FALSE)` function, which compiled Rmd and runs Hugo to prepare your site for publication.
2. You will need to select a service for hosting your site. There are many options, like:
 - o Netlify
 - o Github IO
 - o Updog
3. When you have a domain, you will need to update `baseurl` in your config before running `build_site`.

Useful Add-ons

1. Contact page
2. Comments
3. Google search

Contact

For a simple page with your email contact, you can create a markdown file like so:

```
+++
title = "Contact"
date = "2015-09-01"
menu = "main"
+++

E-mail: <a href="mailto:s.a.kovalchik@gmail.com">s.a.kovalchik@gmail.com</a>
Twitter: \[@StatsOnTheT\]\(@StatsOnTheT\)
```

Contact

For a simple page with your email contact, you can create a markdown file like so:

```
+++
title = "Contact"
date = "2015-09-01"
menu = "main"
+++

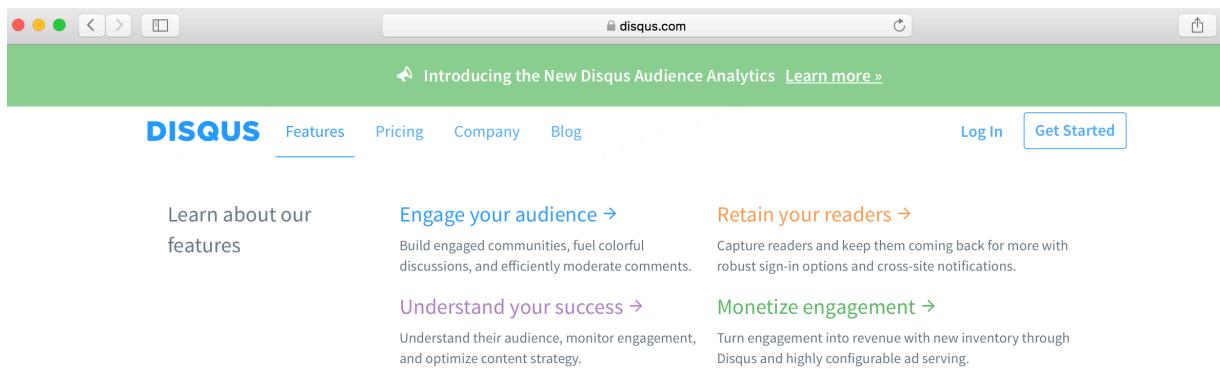
E-mail: <a href="mailto:s.a.kovalchik@gmail.com">s.a.kovalchik@gmail.com</a>
Twitter: [@StatsOnTheT](@StatsOnTheT)
```

- Store under content/post
- Use the menu 'main' to make it appear on the main page menu

Comments

Comments aren't the greatest thing the Internet has given us but you may still want feedback from readers on your site

- **Disqus** is a popular comment service provider
- Many Hugo themes like Mainroad provide automatic support
- Just register your page there and then update your `config.toml`



Google Search

- Once you are building content, it is a good idea to give your readers the ability to search content on your site
- One way to do this is with Google site search
- Many themes will have built-in widgets to incorporate this search

Note: It can take a day or so for the site index to begin to populate

Search Configuration

```
[Params.widgets]
    search = true # Enable "Search" widget
    recent_articles = true # Enable "Recent arcticles" widget
    categories = true # Enable "Categories" widget
    tags = true # Enable "Tags" widget
    tags_counter = false # Enable counter for each tag in "Tags" widget (disabled by default)
```

Search Widget

Under layouts/partials/widgets in Mainroad theme...

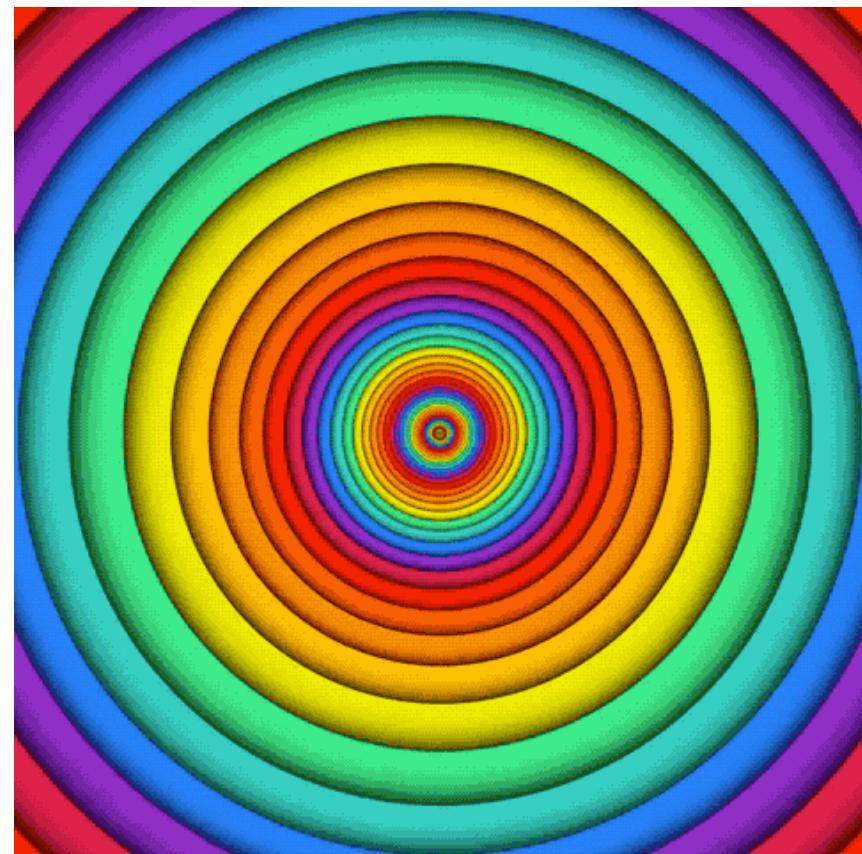
```
{%- if .Site.Params.widgets.search %}


<form class="widget-search__form" role="search" method="get" action="//google.com/search">
    <label>
      <span class="screen-reader-text">Search for:</span>
      <input class="widget-search__field" type="search" placeholder="SEARCH..." value="" name="q">
    </label>
    <input class="widget-search__submit" type="submit" value="Search">
    <input type="hidden" name="sitesearch" value="{{ .Site.BaseURL }}" />
  </form>
</div>
{%- end %}


```

Embedding Visuals

- `img src` for local images
- `iframe` for third party images



Static

- Sometimes you might create an image outside of R markdown that you want to include on your site
- You can store these under 'public/img'
- These can then be invoked with standard 'img src'

```
<div style="float:right;padding:2%;">

</div>
```

Third Party Images

These are images that exist on the Web. Some common types you might consider including are:

- Getty images
- Plotly charts
- Entire shiny apps!

Third Party Images

These are images that exist on the Web. Some common types you might consider including are:

- Getty images
- Plotly charts
- Entire shiny apps!

All of this can be done with iframes!

Embed an image, video or slideshow

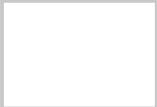
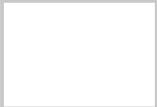
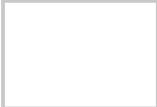
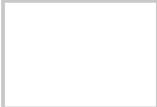
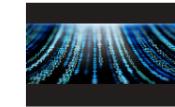
[Learn more](#)

Legacy code



```
<div class="getty embed image" style="background-color:#fff;display:inline-block;font-family:Roboto,sans-serif;color:#a7a7a7;font-size:1em">
```

Embed from Getty Images

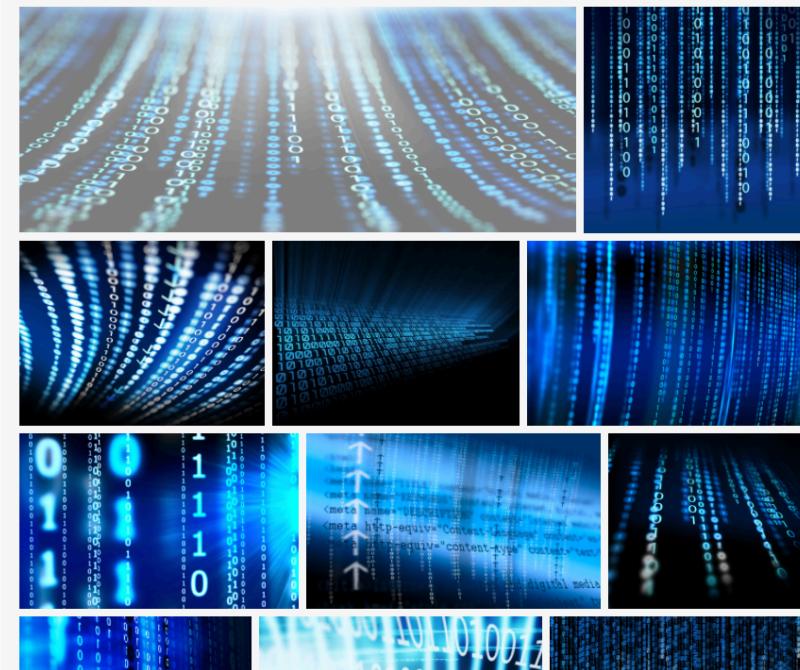


Show captions

Add items to create slideshow

Images

Videos



Share

X

Link & Privacy

Collaborate

Embed

Embed plot:

iframe

html

```
<iframe width="900" height="800" frameborder="0" scrolling="no" src="//plot.ly/~on-the-t/1499.embed"></iframe>
```

Need help? Check out our [embedding tutorial!](#)



Graph

Create

Filter

Group

Aggregate

Style

Analysis

JSON

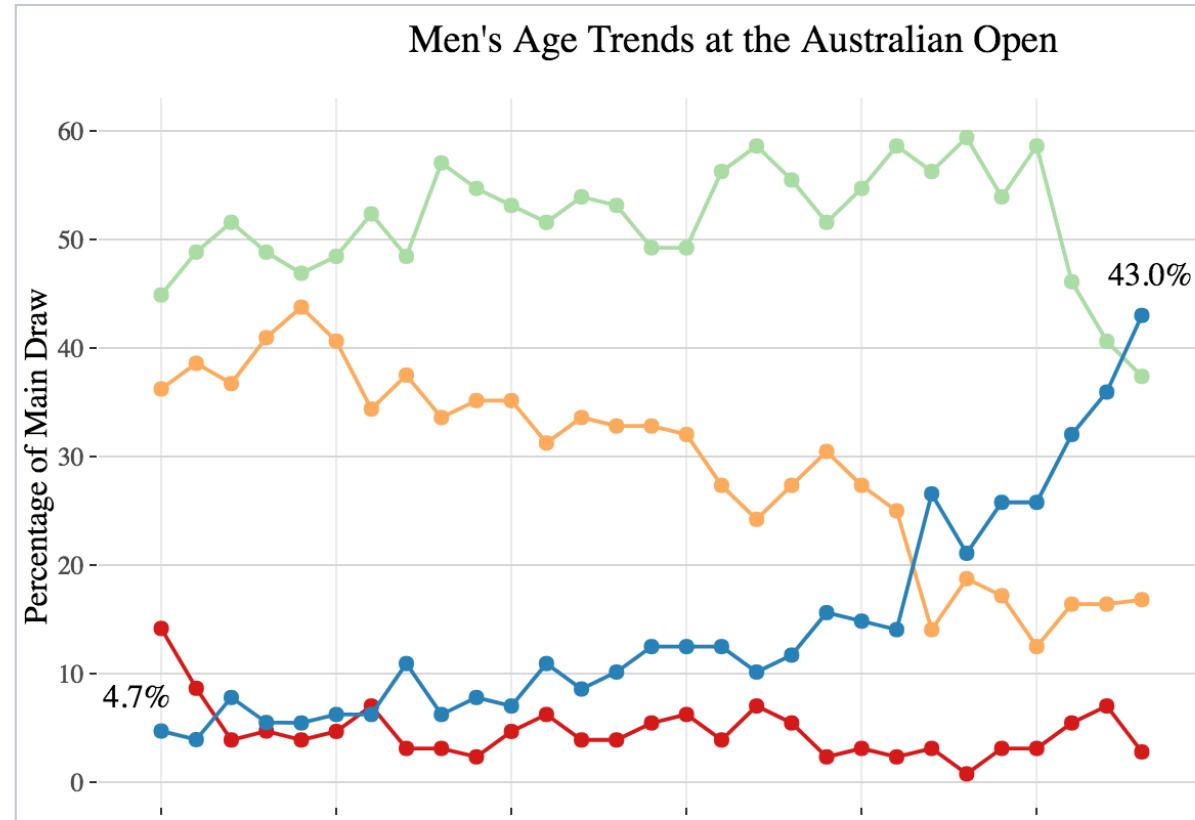
Export

Save

Share

Grid 1 X +

	data....▼	data.1.y ▼	data.1.text	▼	data.2.☒	data.2.y ▼	
1	1990	14.1732283464567	year: 1990 percent: 14.173228 age_group: Under 20	▼	1990	36.2204724409449	year:
2	1991	8.66141732283465	year: 1991 percent: 8.661417 age_group: Under 20	▼	1991	38.5826771653543	year:
3	1992	3.90625	year: 1992 percent: 3.906250 age_group: Under 20	▼	1992	36.71875	year:
4	1993	4.7244094488189	year: 1993 percent: 4.724409 age_group: Under 20	▼	1993	40.9448818897638	year:



The Real Challenge

The technicalities of setting up a blog are the easy part

The Real Challenge

The technicalities of setting up a blog are the easy part

Creating a steady stream of interesting content is the *real* challenge

The Real Challenge

The technicalities of setting up a blog are the easy part

Creating a steady stream of interesting content is the *real* challenge

I can't claim to have mastered this but I can share some lessons I've learned that can at least help *you* get there

Lesson 1

Set an achievable goal for the frequency you write.

Lesson 1

Set an achievable goal for the frequency you write.

- I will write whenever I am inspired

Lesson 1

Set an achievable goal for the frequency you write.

- I will write whenever I am inspired
- But sometimes inspiration doesn't come and I still need to push myself to write

Lesson 1

Set an achievable goal for the frequency you write.

- I will write whenever I am inspired
- But sometimes inspiration doesn't come and I still need to push myself to write
- For this reason, I set a target for myself to write once a week, recognizing that this would be a challenge at times but still not beyond what my time/creativity allows

Lesson 2

A writing routine can help.

Lesson 2

A writing routine can help.

- When I am in my weekly mode, I will often do analysis and a draft on Friday afternoon

Lesson 2

A writing routine can help.

- When I am in my weekly mode, I will often do analysis and a draft on Friday afternoon
- I will then re-read and publish on Saturday

Lesson 2

A writing routine can help.

- When I am in my weekly mode, I will often do analysis and a draft on Friday afternoon
- I will then re-read and publish on Saturday
- Having a break before final edits is a good way to catch typos or awkward phrases that you might not have noticed on first read

Lesson 3

Find inspiring outlets for topical ideas.

Lesson 3

Find inspiring outlets for topical ideas.

- I have a number of outlet for keeping up topical themes in tennis:
 - Other blogs
 - RSS feeds
 - Podcasts
 - Forums
- Read with a curious mind and always ask where data could contribute to a topic of interest

Lesson 4

No where you can get data that is relevant to your blog.

Lesson 4

No where you can get data that is relevant to your blog.

- I didn't start my blog until I had written an R package that collated multiple sources of tennis data from the Web
- This made it so easy to speak to a lot of questions that would come up in the press with a data analysis
- So it is good to do some data homework before you launch your blog

Lesson 5

If I can't chart something in a post, it probably isn't a great post.

--

- This is a rule of thumb I found that helps me gauge what is a 'good' post
- It might not be the right rule for you, but if you are launching a data science blog, I would recommend you adopt this rule

Lesson 6

Think quality over quantity.

Lesson 6

Think quality over quantity.

- It is not a universal rule, but often, shorter posts are the most engaging to readers
- Being more concise can also help us sharpen our thoughts
- Aiming for ~800 words or less is a good rule of thumb

Lesson 7

Celebrate each post with something special.

Lesson 7

Celebrate each post with something special.

- I usually go for a nice walk and coffee after my Saturday writing

Lesson 7

Celebrate each post with something special.

- I usually go for a nice walk and coffee after my Saturday writing
- This makes getting through the writing process that much more rewarding

Lesson 7

Celebrate each post with something special.

- I usually go for a nice walk and coffee after my Saturday writing
- This makes getting through the writing process that much more rewarding
- Maintaining an engaging blog isn't easy so you shouldn't be shy to celebrate each post you put out there in some way that works for you

Lesson 8

Don't doubt, just write!

Lesson 8

Don't doubt, just write!

- I wanted to start a blog for almost a year before I actually started

Lesson 8

Don't doubt, just write!

- I wanted to start a blog for almost a year before I actually started
- There are a thousands of ways to talk yourself out of getting started

Lesson 8

Don't doubt, just write!

- I wanted to start a blog for almost a year before I actually started
- There are a thousands of ways to talk yourself out of getting started
- But for every excuse that comes up in your mind, your answer should always be: 'Just write!'

Resources

- blogdown
 - <https://bookdown.org/yihui/blogdown/>
- Git Commands
 - <https://confluence.atlassian.com/bitbucketserver/basic-git-commands-776639767.html>