

推荐书单

亲测可读的 10 本书

黄湘云

2019 年 1 月 21 日

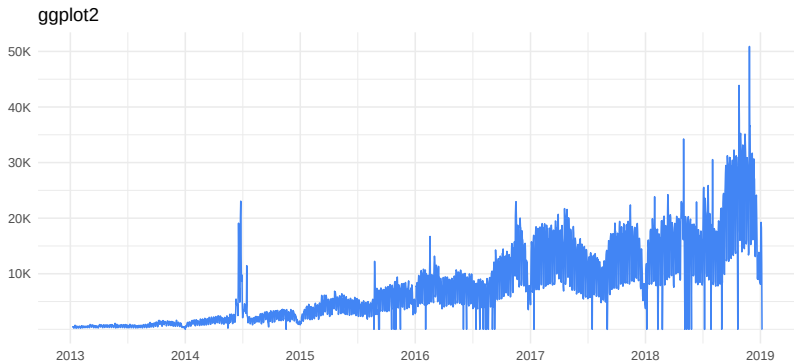


What is R? And why R?¹

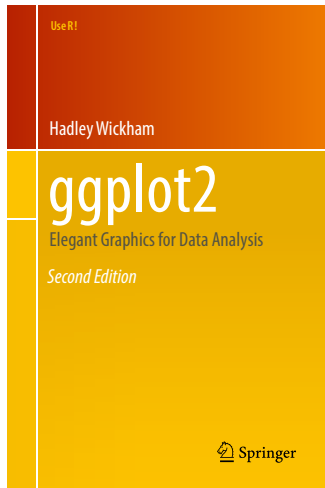


¹<https://www.r-project.org/>

ggplot2 每日的下载量

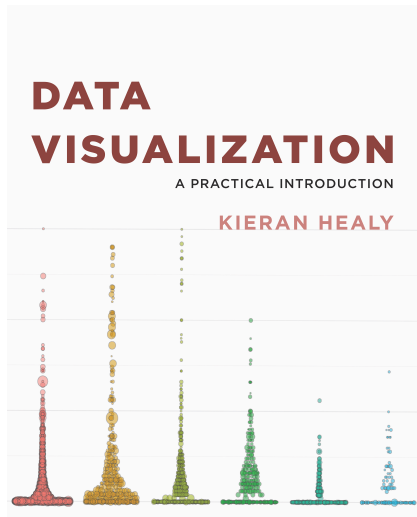


Data Visualization | 推荐指数 *****



Hadley Wickham

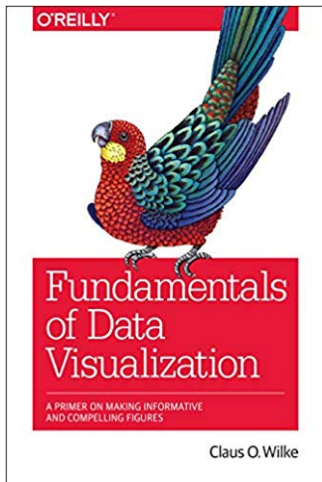
- <https://github.com/hadley/ggplot2-book>



Kieran Healy

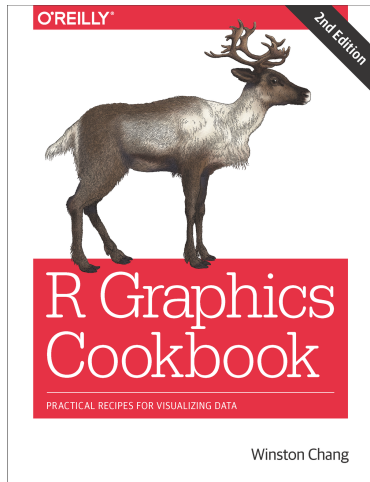
- <https://github.com/kjhealy/socviz>
- <https://socviz.co/>

Data Visualization II 推荐指数 *****



Claus O. Wilke

- <https://github.com/clauswilke/>
- <https://serialmentor.com/dataviz/>



Winston Chang

- <https://github.com/wch>
- <http://www.cookbook-r.com/>

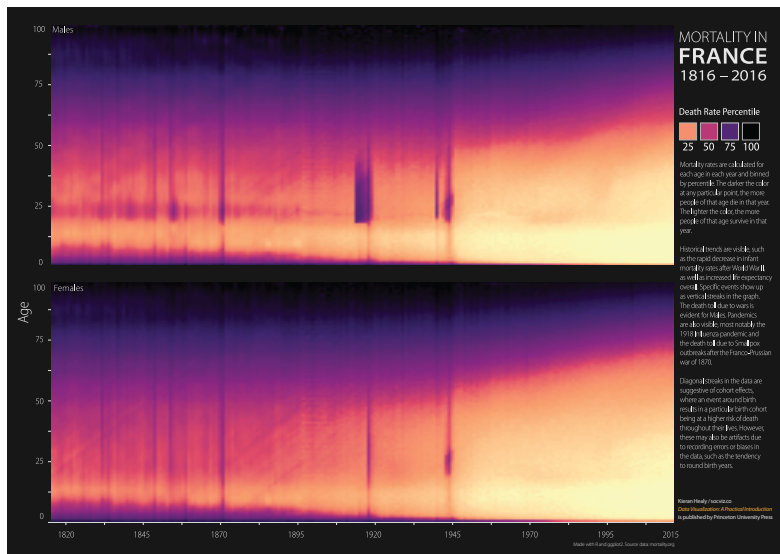
Using R packages and education to scale Data Science at Airbnb²



- Github: https://github.com/ricardo-bion/medium_visualization

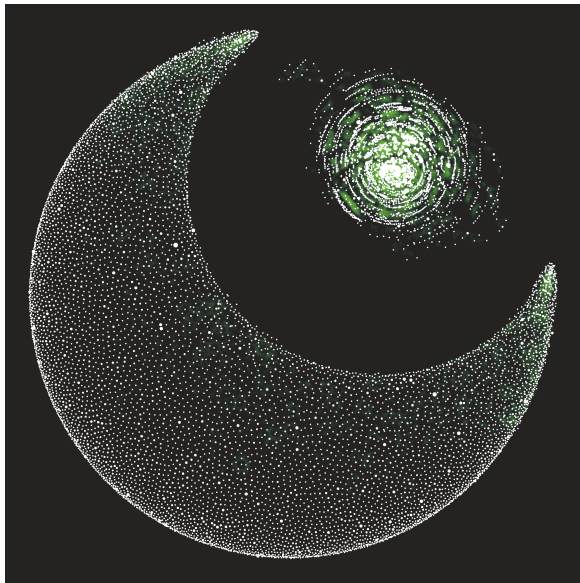
²<https://medium.com/airbnb-engineering/using-r-packages-and-education-to-scale-data-science-at-airbnb-906faa58e12d>

Mortality in France 1816–2016 ³



³<https://kieranhealy.org/blog/archives/2018/12/27/french-mortality-poster/>

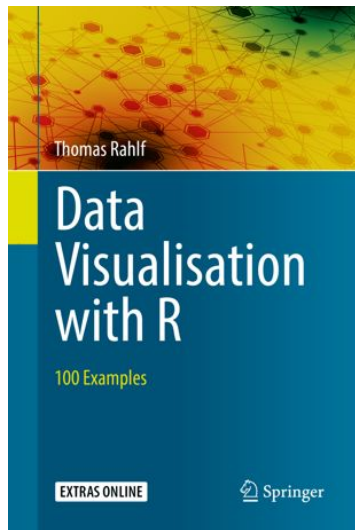
CRAN contributors



网络规模

- R 包 11800+
- 开发者 6000+
- 数据日期: 2017-07-15

Data Visualisation with R⁴ 推荐指数 *****



Prof. Qiwei Yao

I really like this book: those 100 interesting real data examples with the detailed R-scripts for producing beautiful graphical visualisation are particularly helpful for learning R graphics. I will use it as a main textbook for data visualization for my statistics course.

Paul Murrell

The images look REALLY nice!

Uwe Ligges

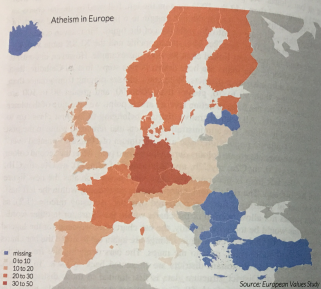
The graphics look VERY professional, with some I would not have thought that they come from R.

⁴Thomas Rahlf <http://www.datavisualisation-r.com/>

336

10.3.3 Choropleth Map of Europe at Country-Level

10 Maps



About the figure: Choropleth maps do not necessarily have to show small-scale data. Characterisation of individual countries with variable attributes in different colours can also be useful. In this example, we colour European countries according to a value concerning atheism. Again, we restrict ourselves to one colour and select appropriate gradations with a Brewer palette. In this instance, an additional second colour is used to indicate "missing values". This is useful if we want to point out that certain countries were included in the analysis, but no concrete data for the depicted variable are available. In the chosen layout, not only the legend, but also the title are written within the map. That way, the figure itself can be bigger (see Sect. 9.2.2). Data derive from the European Values Study and were kindly provided by Mira Hassan. They are based on results by Siegers, Pascal (2012): *Alternative Spiritualitäten: neue Formen des Glaubens in Europa: eine empirische Analyse. Akteure und Strukturen*. Frankfurt/New York: Campus. See annex A, NUTS, for map data.

```
pdf_file<-pdf("maps_europe_choropleth_countries.pdf")
cairo_pdf(bg="grey98", pdf_file,width=13,height=11)
par(omi=c(0,0,0,0),mai=c(0,0,0,0),family="Lato Light",las=1)
```

10.3 Choropleth Maps

```
library(maptools)
library(RColorBrewer)
library(sp)
library(rgdal) # for spTransform
library(gdata)

# Import data and prepare chart

myData<-read.csv("myData/prop.table EVS cntr.csv",sep=";",dec=,
)
myData[is.na(myData$ATHE),"ATHE"]<- -9
data(world_simpl)
world_simpl[["world_simpl|data[,"IS02"] %in% myData$Country],]
w=world_simpl[["NAME"] != "Antarctica",]
w=spTransform(w,CRS=CRS("+proj=merc"))
# Create chart

plot(m, xlim=c(-2000000,5000000), ylim=c(4000000,10000000), col=rgb(
160,160,160,maxColorValue=255), border=F)

xc<-readShapeSpatial("myData/NUTS-2010/NUTS_RG_60M_2010.shp",
proj4string=CRS("+proj=longlat"))
yc=x[["NUTS_ID %in% myData$Country,"]]
m=spTransform(y,CRS=CRS("+proj=merc"))

myClasses<-c(-10,0,10,20,30,50)
myColourPalette<-c("cornflowerblue",brewer.pal(4,"Reds"))

id<-m$NUTS_ID
n<-length(id)
position<-vector()
for (i in 1:n){
position[i]<-match(m$NUTS_ID[i],myData$Country)
}
myColour_no<-cut(myData$ATHE[position],myClasses)
levels(myColour_no)<-c("missing","0 to 10","10 to 20","20 to 30",
"30 to 50")
plot(m,col=myColourPalette[myColour_no],border="white",add=T)

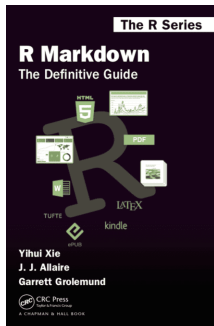
legend("bottomleft",levels(myColour_no),cex=1.45,border=F,bty="n",
fill= myColourPalette,text.col="black")

# Titling

mtext("Atheism in Europe",at=-1300000,cex=2,adj=0,line=3)
mtext("",at=-1300000,cex=2,adj=0,line=4.8)
mtext("Source: European Values Study",1,at=3200000,cex=1.7,adj=
0,line=2.3,font=3)
dev.off()
```

We start the script by defining a window that is 13 inches wide and 11 inches high. The inner and outer margins are set to 0, and the background to white. We require four libraries: maptools, RColorBrewer, sp, and rgdal for the spTransform()

Dynamic Documents with R and knitr⁸ 推荐指数 ***



- bookdown: Authoring Books and Technical Documents with R Markdown (2016)⁵
- blogdown: Creating Websites with R Markdown (2017)⁶
- R Markdown: The Definitive Guide (2018)⁷
- 作者主页: <https://yihui.name/>

⁵<https://bookdown.org/yihui/bookdown/>

⁶<https://bookdown.org/yihui/blogdown/>

⁷<https://bookdown.org/yihui/rmarkdown/>

⁸<https://yihui.name/knitr/>

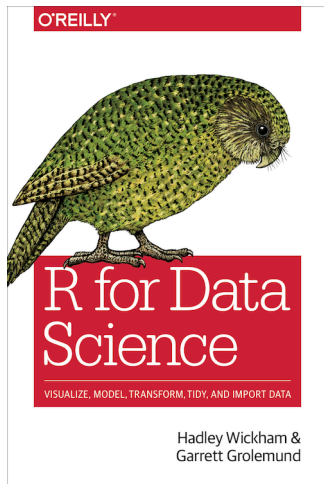
男神 — Hadley Wickham⁹



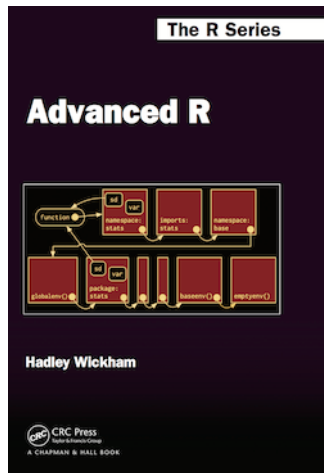
- 改变做图的姿势 — ggplot2
- 改变开发的姿势 — devtools
- 改变数据的姿势 — dplyr

⁹图片来自 <http://hadley.nz/>

R for Data Science 和 Advanced R 推荐指数 **

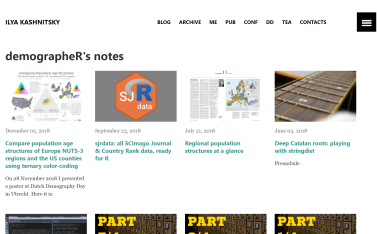


- <https://github.com/hadley/r4ds>
- <https://r4ds.had.co.nz/>

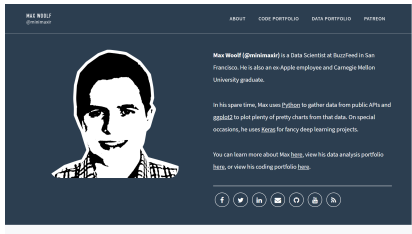


- <https://github.com/hadley/adv-r>
- <https://adv-r.hadley.nz/>

awesome bloggers



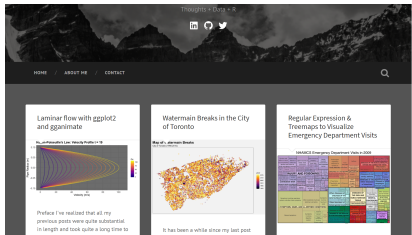
(a) Ilya Kashnitsky
<https://ikashnitsky.github.io/>



(b) Max Woolf <https://minimaxir.com/>



(c) Shirin Glander
<https://shirinsplayground.netlify.com/>



(d) Eugene Joh <https://incidental-ideas.org/>

Thanks!

Q & A

- Github: <https://github.com/XiangyunHuang>
- homepage: <https://www.xiangyunhuang.com.cn/>
- slides:
<https://xiangyunhuang.github.io/awesome-readings/awesome-readings.pdf>