A Minimal Demo of knitr with Beamer and Fragile Frames

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July 21, 2020

[1] I thank Richard E. Goldberg for providing this demo.

Background

- The **knitr** package allows you to embed R code and figures in LaTeX documents
  - It has functionality similar to Sweave but looks nicer and gives you more control
- If you already have Sweave working, getting **knitr** to work is trivial
  1. Install the **knitr** package in *R*
  2. Read `https://yihui.org/knitr/demo/lyx/`
- If you use Sweave or **knitr** with Beamer in LyX, you must use the *FragileFrame* environment for the frames that contain R code chunks. Let's see if **knitr** works with Beamer in this small demo.

First Test

OK, let's get started with just some text:

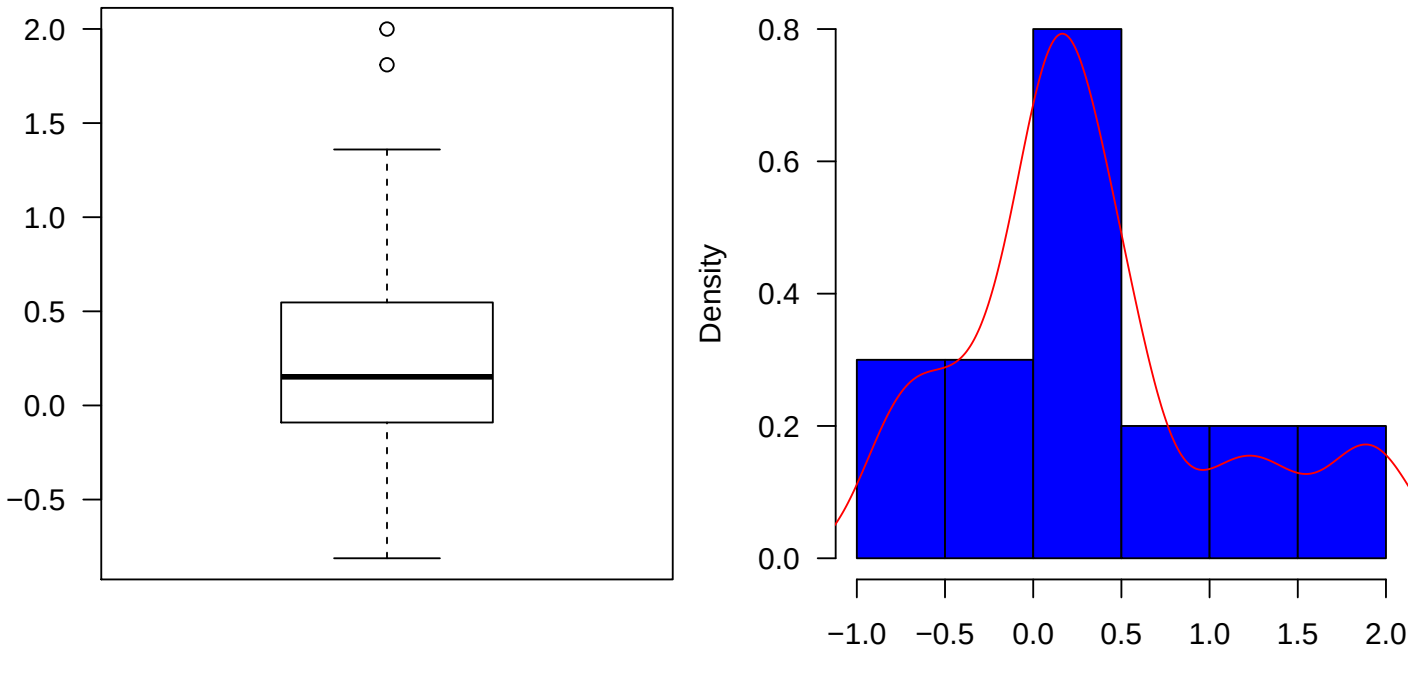
```
# create some random numbers
(x=rnorm(20))

##  [1]  0.1449583  0.4383221  0.1531912  1.0849426  1.9995449
##  [6] -0.8118832  0.1602680  0.5858923  0.3600880 -0.0253084
## [11]  0.1508809  0.1100824  1.3596812 -0.3269946 -0.7163819
## [16]  1.8097690  0.5084011 -0.5274603  0.1327188 -0.1559430

mean(x);var(x)

## [1] 0.3217385
## [1] 0.5714534
```

BTW, the first element of `x` is 0.1449583. (Did you notice the use of `\Sexpr{}`?)

Second Test

Text is nice but let's see what happens if we make a couple of plots in our chunk:

```
par(las=1,mar=c(4,4,.1,.1))  # tick labels direction
boxplot(x)
hist(x,main='',col="blue",probability=TRUE)
lines(density(x),col="red")
```



The Big Question

Do the above chunks work? You should be able to compile the document and get a nice-looking PDF slide presentation. If not, time to double-check everything...