# Data Input in R

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## Assumed Knowledge

file paths

some basic R/basic programming

data file formats

## Input Data from Keyboard

concatenate function

$$y < -c(2,4,6,8)$$

good for very small variables

## Input Data from Keyboard

scan function

x<-scan()

1:

good for intermediate sized variables

### Input Data from File

read.table function

reads in .txt file and automatically creates a dataframe from it

#### read.table function

data<-read.table("/Users/nb/temp.txt", header=True)</pre>

variable

read.table function

filepath in double quotes

header statement

## Working Directory

getwd()

setwd()

ctrl+d

### Formatting Data in Excel

no spaces in header row

no blank spaces

values of variable go into same column

each row is an experimental unit

#### Wrong

_				
	control	preheated	prechilled	
	6.1	6.3	7.1	
	5.9	6.2	8.2	
	5.8	5.8	7.3	
	5.4	6.3	6.9	

from Crawley's *The R Book* 

#### Right

Response	Treatment	
6.1	control	
5.9	control	
5.8	control	
5.4	control	
6.3	preheated	
6.2	preheated	
5.8	preheated	
6.3	preheated	
7.1	prechilled	
8.2	prechilled	
7.3	prechilled	
6.9	prechilled	

#### Variations of read function

read.table

white space-separated

read.csv

comma-separated

("." as decimal)

read.csv2

semicolon-separated

("," as decimal)

read.delim

tab-separated

("." as decimal)

read.delim2

tab-separated ("," as decimal)

## Data Input in R

be careful about formatting

more advanced input possible

