

# Stephanie Dietz

www.stephanieldietz.com  
stephanieldietz@gmail.com

## EXAMPLE RSIENA CODE (R)

### FIRST YEAR CALL NETWORK

To see the code in action, please visit my **Phones and Friends project** from the homepage or my website listed above.

```
#...
```

```
library(RSiena)
```

```
FYCall <- sienaDependent(  
  array( c( FYcallt1, FYcallt2, FYcallt3, FYcallt4, FYcallt5,  
    FYcallt6, FYcallt7, FYcallt8, FYcallt9, FYcallt10, FYcallt11, FYcallt12,  
    FYcallt13, FYcallt14, FYcallt15, FYcallt16, FYcallt17, FYcallt18, FYcallt19, FYcallt20),  
    dim = c(34, 34, 20)  
  ))
```

```
Singapore <- coCovar(Demo[,14])  
Cohort <- coCovar(Demo[,1])  
ProfE <- coCovar(Demo[,17])  
ProfM <- coCovar(Demo[,18])  
CSbeh <- varCovar(codeswitch)
```

```
mydata <- sienaDataCreate(FYCall, Singapore, Cohort, ProfE, ProfM, CSbeh)
```

```
mydata
```

```
myeff <- getEffects(mydata)  
myeff <- includeEffects(myeff, egoX, altX, sameX, interaction1 = "Singapore")  
myeff <- includeEffects(myeff, sameX, interaction1 = "Cohort")  
myeff <- includeEffects(myeff, egoX, altX, simX, interaction1 = "ProfE")  
myeff <- includeEffects(myeff, egoX, altX, simX, interaction1 = "ProfM")  
myeff <- includeEffects(myeff, egoX, altX, simX, interaction1 = "CSbeh")
```

```
#These variables below were included in a stepwise fashion in order to find the best model.  
#They were ultimately not included in the final model, as they decreased the -2loglikelihood  
#and/or were not significant.
```

```
#myeff <- includeEffects(myeff, name = "CSbeh", avSim, interaction1 = "FYCall")  
#myeff <- includeEffects(myeff, name = "CSbeh", avSimEgoX, interaction1 = "ProfE", interaction  
#myeff <- includeEffects(myeff, name = "CSbeh", avSimEgoX, interaction1 = "ProfM", interaction  
#myeff <- includeEffects(myeff, name = "CSbeh", effFrom, interaction1 = "ProfE")  
#myeff <- includeEffects(myeff, name = "CSbeh", effFrom, interaction1 = "ProfM")
```

```
myeff
```

```
myeffAlgorithm <- sienaAlgorithmCreate(projname = 'FYCall', cond = FALSE)  
FYCall_lang <- siena07(myeffAlgorithm, data = mydata, effects = myeff)  
FYCall_lang
```

```
siena.table(FYCall_lang, type="html", sig=TRUE)  
siena.table(FYCall_lang, type="txt", sig=TRUE)
```