UKE HAMBURG

CHCR Center for Health Care Research

17th Meeting of the Hamburg R-User-Group, 12th Feb 2019

Project „easystats“
Making R stats easier!

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Postdoc at the Clinical Brain Lab (Singapore) on the neuroscience of deception

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Daniel

Gerontologist, kind of sociologist, prefers burgers

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Objectives

- Provide a set of packages that makes it easier to do statistical analysis and reporting with R.

  - Low-level (or „core“) packages
    - Target group: advanced users and developers
    - Aims: accessor functions to access the internals of models, such as variables, formulas, model frame/data, random effects, their structure and so on...

Objectives

- Provide a set of packages that makes it easier to do statistical analysis and reporting with R.

  - Mid-level packages
    - Target group: end-user
    - Aims: computation of model "performance" metrics (R2, ICC, CoD, AIC, BIC and whatnot)

Objectives

- Provide a set of packages that makes it easier to do statistical analysis and reporting with R.

  - High Level
    - Target groups: non-experts/beginners that want fully-baked solutions to solve their problems and that want to experience the power of R
    - Aims: reporting, plotting

A first low-level package…

insight

Model objects are terrifying

```
# model frame?

library(nlme)

m <- gls(
  follicles ~ sin(2*pi*Time) +
  cos(2*pi*Time), Ovary,
  correlation = corAR1(form = ~ 1 | Mare)
)

model.frame(m)
#> corStruct  parameters:
#> [1] 1.960656
```

Model objects are terrifying

```
# model family?

fm1 <- lme(
  distance ~ age, data = Orthodont
)

family(fm1)
#> Error in UseMethod("family") :
#>   no applicable method for 'family'
#>   applied to an object of class "lme"
```

Model objects are terrifying

```
# model terms?

library(MCMCglmm)
data(PlodiaPO)

m <- MCMCglmm(
  PO~1, random=~FSfamily, data=PlodiaPO,
  verbose=FALSE, nitt=1300, burnin=300,
  thin=1
)

all.vars(terms(m))
#> Error in terms.default(m) : no
#> terms component nor attribute
```

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Gain insight into your models!

Objectives

- The goal of this package is to provide tools that make it easy and intuitive to access information contained in various models.
- Although there are generic functions to get information and data from models, many modelling-functions from different packages do not provide methods to access these information.
- **insight** aims at closing this gap by providing consistent functions that work for (almost) any models.

easystats

Want to support us?
https://github.com/easystats

Dominique & Daniel