0.1 `repl`: Replicating Analyses

Description

The generic function `repl` command takes `zelig` or `sim` output objects and replicates (literally, re-runs) the entire analysis. The results should be an output object identical to the original input object in the case of `zelig` output. In the case of `sim` output, the replicated analyses may differ slightly due to stochastic randomness in the simulation procedure.

Usage

```
repl(object, data, ...)
## Default S3 method:
repl(object, data = NULL, ...)
## S3 method for class 'zelig':
repl(object, data = NULL, prev = NULL, x = NULL, x1 = NULL,
     bootfn = NULL, ...)
```

Arguments

`object`	Stored output from either `zelig` or `sim`.
`data`	You may manually input the data frame name rather than allowing `repl` to draw the data frame name from the object to be replicated.
`prev`	When replicating `sim` output, you may optionally use the previously simulated parameters to calculate the quantities of interest rather than simulating a new set of parameters. For all models, this should produce identical quantities of interest. In addition, for if the parameters were bootstrapped in the original analysis, this will save a considerable amount of time.
`x`	When replicating `sim` output, you may optionally use an alternative `setx` value for the `x` input.
`x1`	When replicating `sim` output, you may optionally use an alternative `setx` object for the `x1` input to replicating the `sim` object.
`bootfn`	When replicating `sim` output with bootstrapped parameters, you should manually specify the `bootfn` if a non-default option was used.
`...`	Additional arguments passed to either `zelig` or `sim`.

Value

For `zelig` output, `repl` will create output that is in every way identical to the original input. You may check to see whether they are identical by using the `identical` command.

For `sim` output, `repl` output will be will be identical to the original object if you choose not to simulate new parameters, and instead choose to calculate quantities of interest using the previously simulated parameters (using the `prev` option. If you choose to simulate new parameters, the summary statistics for each quantity of interest should be identical, up to a random approximation error. As the number of simulations increases, this error decreases.

Author(s)

Kosuke Imai <⟨kimai@princeton.edu⟩>; Gary King <⟨king@harvard.edu⟩>; Olivia Lau <⟨olau@fas.harvard.edu⟩>

See Also

`zelig`, `setx`, and `sim`. In addition, the full Zelig manual may be accessed online at `http://gking.harvard.edu/zelig`.

Examples

```
data(turnout)
z.out <- zelig(vote ~ race + educate, model = "logit", data = turnout[1:1000,])
x.out <- setx(z.out)
s.out <- sim(z.out, x = x.out)
z.rep <- repl(z.out)
identical(z.out$coef, z.rep$coef)
z.alt <- repl(z.out, data = turnout[1001:2000,])
s.rep <- repl(s.out, prev = s.out$par)
identical(s.out$ev, s.rep$ev)
```