



Whats' beyond Concerto: An introduction to the R package catR

Final comments

The Psychometrics Centre, Cambridge, June 10th, 2014

This workshop focused on

- IRT and CAT
- \bullet R software and R package catR
- \bullet Practical applications of catR with a live demonstration

catR is

- open source and freely accessible
- complete (for dichotomous and polytomous IRT models)
- flexible
- regularly updated

Several aspects were not covered by this workshop:

- content balancing: can be controlled with appropriate design of the item bank and options in randomCAT
- post-hoc simulations: CAT responses are randomly drawn from the theoretical distribution of a Bernoulli variable, but real (observed) responses can be provided instead
- generation of numerous response patterns simultaneously: feasible with the **simulateRespondents** function (works similarly to **randomCAT**)
- only a few options for next item selection and proficiency estimation were illustrated

Future plans for catR:

- incorporate multidimensional IRT models
- incorporate testlet IRT models
- incorporate response-time IRT models
- ...
- make catR THE most complete and stable R package for adaptive testing

To get more information about cat R:

- Magis, D., & Raîche, G. (2012). Random generation of response patterns under computerized adaptive testing with the R package catR. *Journal of Statistical Software*, 48 (8), 1–31.
- The catR help files...
- ... or send me (an) email(s) :-)

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THANK YOU!