

# My very short little brief experience on R/exams



R/exams

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october 2020



## Coeurjolly . . .Who's that guy ?

- Definitely not an R/exams expert ! (and most of “friends” even say I'm not an R expert, which I agree with)
- Not a technical talk on refinements of R/exams
- Want to share my experience . . .given the next lockdown to come, might ber useful for other people

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- Main resource : <http://www.r-exams.org/>



R/exams



- R forge forum [https://r-forge.r-project.org/forum/forum.php?forum\\_id=4377&group\\_id=1337](https://r-forge.r-project.org/forum/forum.php?forum_id=4377&group_id=1337). (definitely a golden mine for losers like me)

## Why I came to R/exams!

- Lockdown last spring : like lots of people, I had more time and had to prepare an online exam
- Two solutions : give pdf version to students and let them work, or use learning platform (moodle) to create an exam (recommended by my previous university)

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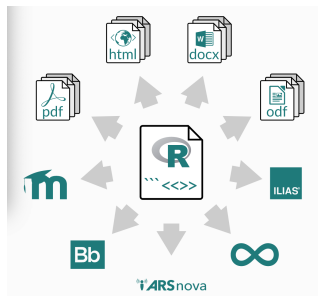
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- Advantages :
  - very useful,
  - simple to use (click-button interface),
  - lots of different types of questions (schoice, mchoice, cloze, string, ...),
  - automatic correction, quick feedback to students.

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  - automatic correction, quick feedback to students.
- Drawbacks :
  - click-button interface (so long and boring),
  - no R instruction can be included (I mean in a smart way - anyone can copy-paste),
  - inserting plots is painful (remember the first reports you received from your students where they paste in doc documents R plots),
  - difficult to generate random exercises (possible in moodle but not in the way a statistician sees it)

# Principles of R/exams

- Construct an exams based trough different questions/exercises (bricks), created in `.Rmd` or `.Rnw` format
- Then, based on the bricks



- Bricks are compiled (in a homogeneous way) via R instructions such as

```
exams2xyz(c('exo1.Rnw', 'exo2.Rnw'), ..., n=4)
```

where `xyz=pdf,html,moodle,nops,...`

- If exercises are “dynamic” (say random), then the output is `plain1.pdf, ..., plain4.pdf, plain1.html, ..., plain4.html` or `exam.xml, ...`

## What I like R/exams ?

- Reproducibility ; “independent“ of the learning platform
- Forces the teacher to think well his/her exercise :
  - e.g. so that it remains interesting after two attempts
  - “difficult” to cheat !
  - exercise as a brick (on a specific knowledge) and less a big problem
- Even for a simple non-dynamic multiple choice quizz, it’s easier to manage an exercise externally to moodle and import questions in the end.

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**Time for a brief demo . . .**