

StatEasy

Delseny Bastien
Runghen Rogini

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Chapitre 1 What is *StatEasy* ?

StatEasy is a project which is meant to help easing statistical analysis for different users (varying from beginners to advanced users). We decided to divide this project into three sub-projects. It can actually be regarded as different aspects of our main goal - i.e. making the most of an open source tool for statistical analysis using a user-friendly interface. We talk about 'sub-projects' as being various aspects of our project which will enable us to building up *StatEasy*.

StatEasy aims to provide a user-friendly interface for R statistical analysis. Our main objectives are the following :

- Designing a user-friendly interface
- Creating a database which will contain all available packages and related functions on R with respect to the different statistical analyses to be performed
- Compiling links and tutorials on statistical analysis and R in general which are freely available. In addition to that, other documentation will be supplemented whereby information is currently lacking online. All this will be in the format of a documentation available offline.

Chapitre 2 Why this tool ? - The purpose of our project

Compared to available user-friendly environments such as Stata or SPSS (and many others), we are suggesting using an open source tool - R statistical program (or software ??). Even if R is becoming increasingly popular, a lot of people are still scared of it due to its unintuitive appearance. Like mentioned in an article in 2009 by Petchey and colleagues, R is an advantageous tool which provides various analysis within only one program. However using R requires some training to getting used to the new work environment. *StatEasy* can be viewed as a facilitator which enable different user types to get rid of their phobia of using R or their phobia of statistical analyses.

For beginners who are not familiar to statistical analysis - we will be providing them some guidance to help them to choose the most appropriate analysis with respect to their objective. Currently, there are more than 10 000 packages available. Chances are high that the analysis that you

are currently performing has been bundled in a nice package with all the required functions. Thus, to the more advanced users, *StatEasy* will be used more like a search engine for the available packages they might be interested to use wrt their analyses.

We want to provide a tool which will need less time to be handled than R with R performances. Moreover *StatEasy* also means less time learning statistical analysis, more time performing those.

Chapitre 3 How to make all this possible ?

As mentioned previously, we will be using R for our current project. We can perform statistical analysis, plus it is a useful tool for the management of spreadsheets and graphics. Being an open-source is of course an advantage.

To be able to carry out the different objectives of our project, we have separated the different objectives as distinct sub-projects. In our first phase, i.e. our current phase, of our project we are focusing on identifying the different type of users, the different kind of problems that are frequently encountered either from an R point of view or from a statistical point of view. For starters, we focused on the main questions that might help someone to identify the statistical analysis they might be carrying out.