An *R*-based reporting web application

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Sharing source code with non-technical clients of an *R* programmer is a rather inefficient way of providing a tool to extract the most-recent results from a live database, as clients are often not familiar with the environment. On the other hand, turning *R* code to standalone and easy to use software requires special IT skills, and even more: it does not provide any transparency. This makes the interaction between the *R* and non-*R* users hard, which is a possible barrier of the more general use of the language.

We have created a *R*-as-a-Service environment where the programmers can share methods, algorithms and report templates with an easy to use interface on the client side. This platforms builds on our **pander**, **rapport** and **rapportools** packages, and **rApache**, **RAppArmor** and **sandboxR** to securely run *R* codes and inline *R* chunks of reports in the cloud.

The application makes it easy to share both the results and the sources of such reporting templates, and cloning, then extending (aka forking) a statistical template is just as easy as on GitHub. This means that *R* programmers can share executable code privately or publicly in a very easy way.

The talk will concentrate on the main features of the web application from an *R* programmer's point of view, and it will also explain how the application helps creating reproducible statistical report templates integrated in homepages and blog posts without any serious IT knowledge.

References

Aleksandar Blagotic and Gergely Daroczi (2013). **rapport**: a report templating system. http://cran.r-project.org/package=rapport

Gergely Daroczi (2013). **pander**: An R Pandoc Writer. http://cran.r-project.org/package=pander

Gergely Daroczi (2013). **sandboxR**: filtering malicious calls in *R*. https://github.com/Rapporter/sandboxR

Gergely Daroczi (in press). Creating statistical reports in the past, present and future. *Romanian Statistical Review*.

Jeffrey Horner (2013). rApache: Web application development with R and Apache. http://www.rapache.net/

Jeroen Ooms (2013). The **RAppArmor** Package: Enforcing Security Policies in R Using Dynamic Sandboxing on Linux. *Journal of Statistical Software*, 55(7), 1-34. http://www.jstatsoft.org/v55/i07/

John MacFarlane (2013). Pandoc, http://johnmacfarlane.net/pandoc/.