Editorial

by Michael Lawrence

On behalf of the editorial board, I am pleased to publish Volume 8, Issue 1 of the R Journal. This issue contains 27 contributed research articles. Each of them either presents an R package, a specific extension of an R package or applications using R packages available from the Comprehensive R Archive Network (CRAN, http://CRAN.R-project.org). It thus provides a small but current cross-section of the burgeoning R ecosystem.

Interest in developing graphical user interfaces and visualization tools on top of R, and integrating R with the web, continues to grow, as evidenced by the articles on the Social Network Analysis Survey Framework, a Shiny interface to the OpenMX modeling software, and the mapmisc package for visualizing geographic data. This issue also includes articles on R interfaces to cloud-based data resources (the sbtools package), and a system for crowd-sourcing data preprocessing chores (the MTurkR package).

True to the roots of R, the bulk of this issue presents advancements in the field of applied statistics, including the crch package for modeling censored and truncated data, new improvements in the mclust package for fitting Gaussian mixture models, the scmamp package for comparing the performance of multiple algorithms, the rTableICC for randomly generating contingency tables, the clere package for variable clustering in high dimensions, the FWDselect package for forward model selection, the metaplus package for analyzing robust meta-analyses, the hiddenf package for exploring interaction effects in factorial studies, the statmod package for calculating probabilities with the inverse Gaussian distribution, the clustering.sc.dp package for clustering with sequential constraints and a review of R-based methods for non-parametric testing of interactions in two-way factorial designs.

The diversity of the R ecosystem is such that packages are available for many highly focused subfields. Examples in this issue include the stylo package for performing stylometry studies, the CryptRndTest package for analyzing randomness in cryptography, the quickpsy package for function fitting in psychometrics, SWMPr for analyzing estuary data, FieldSim for simulating Gaussian fields (e.g., in image analysis), progenyClust for progeny clustering, keyplayer for finding key players in social networks, DECIPHER for deciphering biological sequence data, GMDH for short term forcasting with neural networks, and gstat for spatio-temporal interpolation of geostatistics data.

Before the user can apply these tools, the data must first be imported into R and munged into a shape that is amenable to analysis. We present several packages for importing and munging data, namely: SchemaOnRead, a generalized data import framework supporting numerous common file types, multiple packages for working with web logs (webreadr, urltools, iptools and rgeolocate), and the genderizeR package for predicting gender from first names.

In addition the News and Notes section contains the usual updates on CRAN and the Bioconductor project.

I hope you enjoy the issue.

Michael Lawrence
Michael.Lawrence@r-project.org