

Web 2.0 for R scripts & workflows: Tiki & PluginR

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Abstract

The need to work with colleagues from other institutions is very common around Academia and Science. Teams often find tools to communicate and coordinate with other web platforms to improve collaboration across space and time. Although analysis and visualization of data with R is becoming very popular, development teams frequently look also for web-based graphical user interfaces for the end users of those R scripts. The list of prototypes and publicly announced free tools (R (2011)) includes programs of all kinds. However, a quick review of these tools led us to similar conclusion reached by other researchers such as Saunders (2009): most of these programs seem to present problems in the short to medium term. Those problems arise from the fact that either such programs no longer work with current stable versions of standard and free web technology, because its development seems to have been discontinued for years. Or because they are too difficult to install or use for most scientists or people who are not professionals in web technology. Therefore, we decided in our research groups to contribute to the development of a relatively new approach, different from the latest approaches presented in the latest years (Ooms (2009), Nakano and Nakama (2009) and others): a plugin for Tiki Wiki CMS Groupware (also known as "Tiki"), a mature collaborative web 2.0 framework released as free/libre open source software, somewhat similar to the R extension for Mediawiki, but with all the extra features from this "Tightly Integrated Knowledge Infrastructure" that Tiki represents), along with its decentralized but truly successful development model (Tiki (2011)). This new PluginR (De Pedro (2011)), has so far allowed the development of a Web application of use in research on the Teaching and Learning field (De Pedro et al. (2010)), as well as to develop web interfaces for Basic Pipelines in Bioinformatics for medical research (De Pedro and Sánchez (2010b)). The communication will highlight the main advantages (and disadvantages) found up to date with the use of Tiki + PluginR to solve many of the needs of our research groups, including the new progresses achieved after the presentation at the last Spanish R Users meeting (De Pedro and Sánchez (2010a))

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