R "Validation" Hub Meeting

16 July 2019

Attendees

[Not captured]

Previous Action Items

Andy Nicholls, GSK (see previous minutes)

- Website still can be reviewed; it is relatively mature
- Risk assessment (Yilong): completed package to assess package structure (under review)
- Testing stream: presentation today
- Whitepaper: Group formed, Andy prioritizing completion by R/Pharma

Presentation: "Testing framework"

Tilo Blenk, GSK

- Tilo shared a description of a testing framework used at GSK specific to an installation that he is working on. His example was for a system to do processing of Real World Data and Analytics (RWDA).
- Testing strategy included ensuring basic functionality of: base R, database interactions, simple tabulations and various regression modeling methods. An outline of tests for each of these areas was provided.
- The focus was not on packages but on the functions which are typically used in the analytical process. By testing a function the dependencies of the functions are automatically tested also.
- The tests were not meant just as qualification test but also for validation. They can be used for software qualification but if they are comprehensive enough such tests might also cover validation.
- The testthat package was used to implement. Script can be run from within R and it produces a summary of the test results.
- Testing is NOT development testing, but rather intended as 'qualification' of an installation. While the testing is not comprehensive, it is moderately extensive.

Questions

- Plans to make this available? *Yes: will share with those who are interested, probably via the GitHub account of the R validation hub.*
- What further contributions might be needed? *Tilo/Andy: It's fairly comprehensive and arguably more than is needed for qualification purposes but companies will have to decide themselves. Obviously, it only covers a subset of all possible packages so new tests will need to be written for new packages and any new features.*
- Are there any challenges with Jenkins for testing? *Andy: I have used Jenkins for this purpose in the past and had no issues. You can pick up the results through Jenkins and have a build pass/fail based on whatever criteria you specify up front.*

- Are further recommendations on testing needed from the R Validation Hub? *Andy and Tilo: No; there's no expectation to give any recommendation for development testing (there is sufficient guidance available elsewhere)*

Topic: Testing framework

Actions

Action Item	Assigned team member(s)	Deadline	Status
Communication, dissemination of information about the project to the wider group Possible Funding discussion if we need to write a package to pull metrics Will re-assess for the next Autumn application	Andy Nicholls/ Lyn Taylor/ Joe Rickert	Sept 2019	Ongoing
Review of the website content: Direct review back to parker via trello or slack. Possible future action to get the R consortium website to point to our minutes on our website.	Kieran Martin, Min Lee, Juliane Manitz, John Simms, Keaven Andersen, Alex lock-Achileos	R in Pharma Conference Aug 21st.	Ongoing
Risk assessment workstream – Continue work on objectives – targeting basic structure by R/Pharma.	**Yilong Zhang,** Rebecca Krouse, Doug Kelkhoff, Matthias Trampisch, Eric Nantz	R in Pharma Conference Aug 21st.	Ongoing
Requirements/tests workstream set objectives + milestones - **ACTION:** Tilo share tests via GitHub	**Keaven Anderson**, Nate Mockler, **Tilo Blenk.**	May 2019	Ongoing
Validation white paper workstream – Target to produce white paper by R in pharma conference.	Andy Nicholls, Paulo Bargo, Lin Taylor, John Sims	R in Pharma Conference Aug 21st.	Ongoing
Write blog post on gathering metrics and using these in a risk assessment	Doug Kelkhoff	TBC	Open