MetaAnalysis.jl: Development and deployment issues of Meta analysis package in Julia

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ABSTRACT / INTRODUCTION

Meta-analysis refers to the process of information synthesis where researchers ask focused questions, identify primary studies based on inclusion/exclusion criteria, abstract and synthesise study level or individual level data from the primary studies and arrive at summary estimates along with regression of variables on study level estimates and examination of biases. Meta-analyses of RCT and Epidemiological are de rigeur for evidence appraisal in Medicine and Public Health and also widely used in Economics, and Social Sciences. Julia does not have a meta-analysis package and this is the first such package MetaAnalysis.jl (can be downloaded from github repository: https://github.com/arinbasu/MetaAnalysis.jl.git and also submitted from Julia's Project Repository).

This package has implemented a basic meta-analysis package in Julia that allows fixed and random-effects meta analysis, generation of forest plots and funnel plots, and meta-regression and subgroup analysis. This package is undergoing rapid developments. The purpose of this presentation is to engage the audience on meta-analysis, julia, and this package, and seek feedback for further development.

ABOUT THE AUTHOR(S)

- Arindam Basu
- I am an Associate Professor of Epidemiology and Environmental Health at the Faculty of Health at University of Canterbury, I have developed and maintained the MetaAnalysis.jl package.