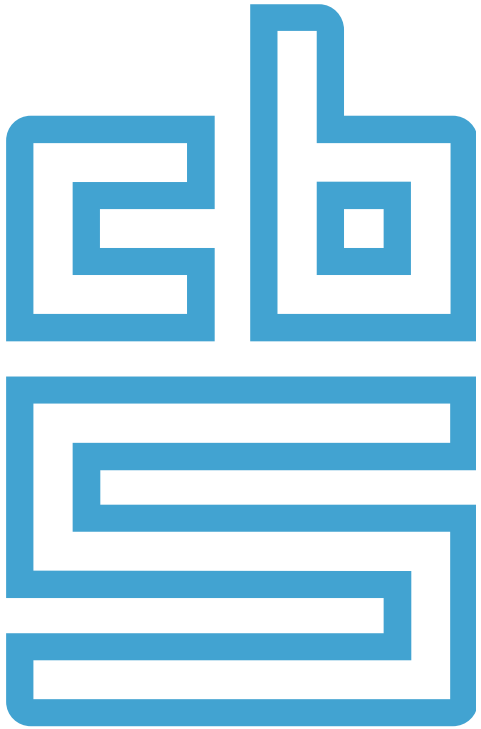
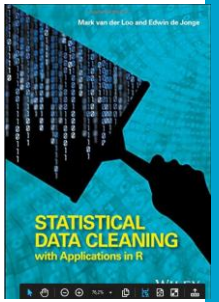


Free and Open Source Software in EMOS and Official Statistics

Mark van der Loo | Statistics Netherlands
EMOS Workshop 20-09-2022

About me

- Sr. Researcher at Statistics Netherlands (15 years)
- 10+ years teaching R, Python, data science, statistics, data cleaning methods, data management to professionals, and students (EMOS), in Government, University, and Private Sector.
- Head of curriculum CBS Academy | ESTP |**EMOS**
- (co) author of R packages (tinytest, stringdist, validate,…), papers, and a book.



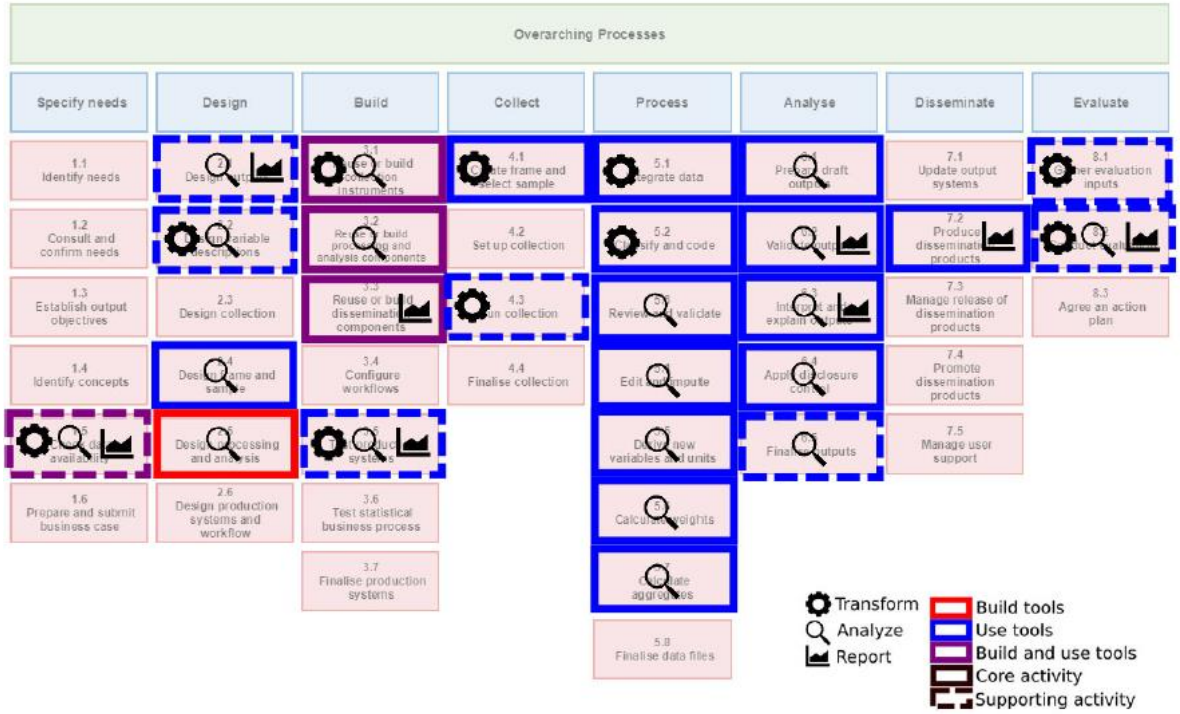
Programming in Statistics

It is increasingly clear that ***computing is*** *becoming* ***an essential skill for statisticians and anybody working with data. Computing is as important as mathematics*** *in both statistical practice and research, yet it occupies a tiny portion of our curricula.*

Nolan and Temle Lang (2010)

The American Statistician. 2010; 64(2): 97-107

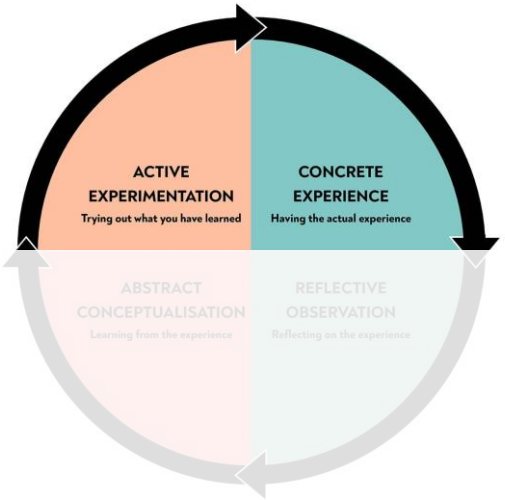
Computing in Official Statistics



Statistical Journal of the IAOS 37 (2021) 1023–1036

Teaching with programming

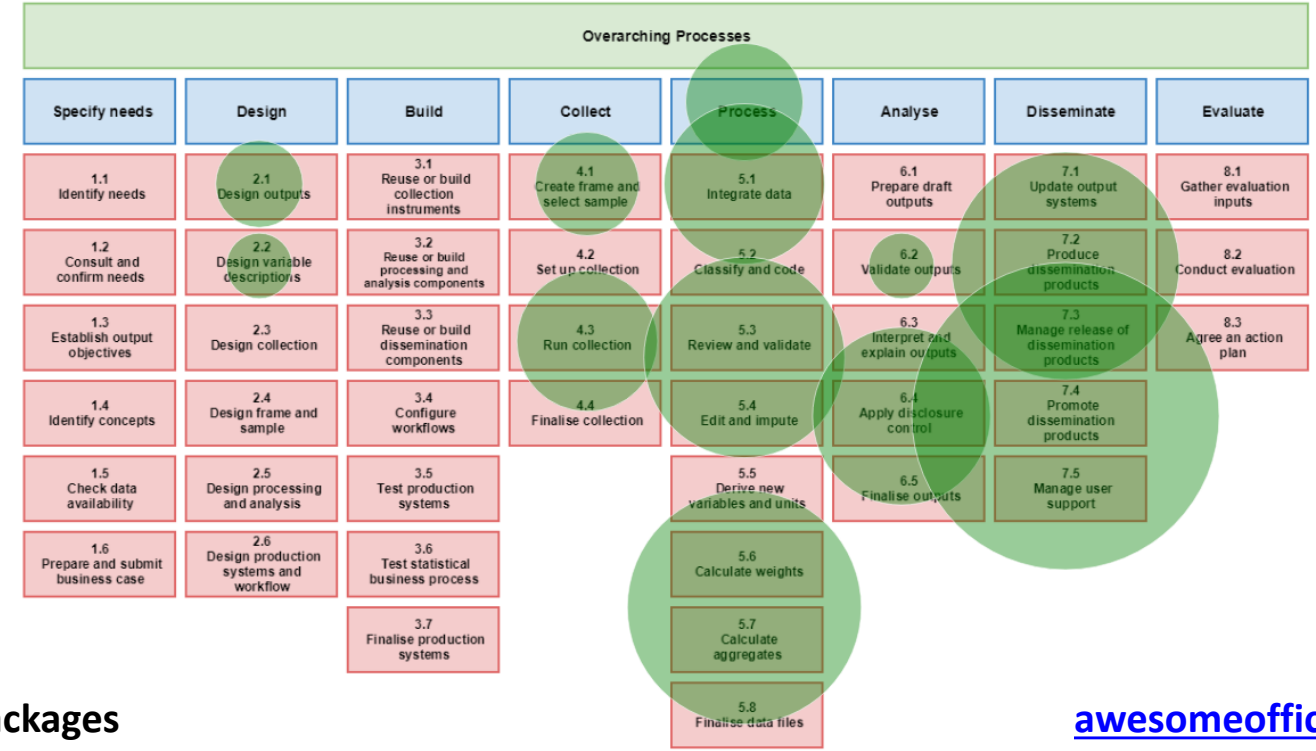
Programming (exercises) touches half of Kolb's learning cycle.



Experience
Experiment

Reflect
Conceptualize

Ok, so programming is important. But why FOSS?



115 Packages

awesomeofficialstatistics.org

Why FOSS?

Practical

New hires (students) use it

Collaboration with other NSIs

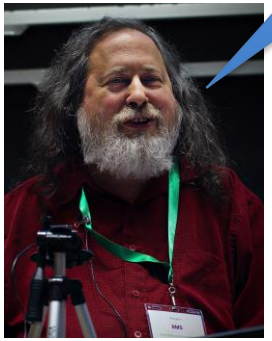
Free, as in free beer => But **not** without responsibility!

Ethical

Open/transparant

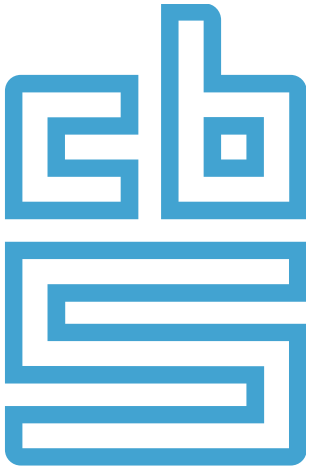
Accountability/Reproducibility

Free, as in free speech



Freedom to run, copy, distribute, study, change and improve the software

Open Software
Open Data
Open Standards



Facts that matter