Statistical Open Source Software for Official Statistics: State of Play and Future Directions

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Abstract[3]

Statistical organizations are increasingly embracing open source technologies to enhance the transparency, efficiency, and reproducibility of official statistics. This adoption represents a significant operational and collaborative shift in the statistical community. This paper reviews the state of open source in official statistics, detailing the movement, sharing Statistics Netherlands' experience with adoption and developing R-packages. It describes the "awesome list of official statistics software" and presents principles for open source derived from best practices, recently endorsed by the Conference of European Statisticians (CES). Finally, the paper explores future directions for maturing this community, including metrics like software independence, uncertainty propagation, and privacy by design, as well as other ways to mature in the statistical open-source landscape.

Keywords: open-source, methodology, community, collaboration

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