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Towards smart surveys: how to implement smart data collection in official statistics?

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Abstract

Smart surveys face an important question in designing and analyzing the combination of survey questions, sensor measurements and data donation: what is the best way of implementation of these smart surveys in the regular data collection strategies?

A variety of surveys contain elements that make them very well fit for the introduction of smart survey features. Especially surveys that tend to be burdensome, both in time and in cognitive effort, and when the information requested may not always be readily available for respondents. Smart surveys introduce features of smart devices such as the use of internal sensors, internal storage and computing and linkage to external sensor systems. Some of these features, such as GPS, receipt scanning and advanced product search algorithms are very promising. They are also challenging in terms of user interface design, recruiting respondents and their motivation and involvement.

In the paper, three smart survey case studies on consumption, mobility and health are discussed. In all, the extent of respondents' recruitment and involvement plays a prominent role: receipt scanning in household budget surveys, location tracking in mobility & physical activity tracking in health.