



Paperless census: the Brazilian experience

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Abstract

In 2010, the Brazilian Institute of Geography and Statistics (IBGE) carried out the first population census that was completely paperless, being collected through mobile capture devices (DMCs). Many technological and methodological innovations were introduced in different processes, from map preparation to data collection, control, verification and dissemination. The DMC made fieldwork easier and was employed in many stages of the census operation: training, pre-collection, data collection and supervision. The equipment enabled census mapping to be used in digital graphic files that were associated with a preliminary list of the addresses to be collected by the enumerator, making their job easier and enabling the monitoring and evaluation of field coverage. In addition to face-to-face electronic collection with handheld computers, for the first time the IBGE allowed the respondent to fill out the questionnaire through the Internet, using a website exclusively designed for the census. The use of the devices in data collection led to significant gains in time and quality, since they allowed the introduction of rules for jumps and editing rules during the interview, in addition to the pre-codification of most open-ended questions. The IBGE was able to follow the evolution of the collected data because microdata could be accessed as soon as they were transmitted, with no more need to wait for a data digitalization stage (through typing or scanning). Moreover, electronic collection enabled the creation of automatized systems to control and supervise data collection, improving and accelerating the quality control process of the enumerator's work. Electronic collection also made it possible to create a public website for society to follow census operations and preliminary information.

Keywords: mobile data capture devices; data collection; innovation.