

2016

Big Data in Psychology: Introduction to the Special Issue

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Citation/Publisher Attribution

Harlow, L. L., & Oswald, F. L. (2016). Big data in psychology: Introduction to the special issue. *Psychological Methods*, 21, 447-457.
Available at: <http://dx.doi.org/10.1037/met0000120>

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Abstract

The introduction to this special issue on psychological research involving big data summarizes the highlights of 10 articles that address a number of important and inspiring perspectives, issues, and applications. Four common themes that emerge in the articles with respect to psychological research conducted in the area of big data are mentioned, including: 1. The benefits of collaboration across disciplines, such as those in the social sciences, applied statistics, and computer science. Doing so assists in grounding big data research in sound theory and practice, as well as in affording effective data retrieval and analysis. 2. Availability of large datasets on Facebook, Twitter, and other social media sites that provide a psychological window into the attitudes and behaviors of a broad spectrum of the population. 3. Identifying, addressing, and being sensitive to ethical considerations when analyzing large datasets gained from public or private sources. 4. The unavoidable necessity of validating predictive models in big data by applying a model developed on one dataset to a separate set of data or hold-out sample. Translational abstracts that summarize the articles in very clear and understandable terms are included in Appendix A, and a glossary of terms relevant to big data research discussed in the articles is presented in Appendix B. Keywords: big data, machine learning, statistical learning theory, social media data, digital footprint, decision trees and forests.

See full article at: Harlow, L. L., & Oswald, F. L. (2016). Big data in psychology: Introduction to the special issue. *Psychological Methods*, 21, 447-457. [Open access link: <http://psycnet.apa.org/journals/met/21/4/447.pdf&productCode=pa>]

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