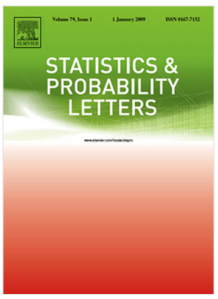
# Accepted Manuscript




The role of Statistics in the era of big data: Crucial, critical and under-valued

E. Marian Scott

PII: S0167-7152(18)30095-6
DOI: https://doi.org/10.1016/j.spl.2018.02.050
Reference: STAPRO 8172

To appear in: *Statistics and Probability Letters*

Please cite this article as: Scott E.M., The role of Statistics in the era of big data: Crucial, critical and under-valued. *Statistics and Probability Letters* (2018), https://doi.org/10.1016/j.spl.2018.02.050

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

*Manuscript
Click here to view linked References

ACCEPTED MANUSCRIPT

# The role of Statistics in the era of big data: crucial, critical and under-valued

E Marian Scott

School of Mathematics and Statistics, University of Glasgow

Marian.scott@glasgow.ac.uk

**Abstract**

What is the role of Statistics in the era of big data, or is Statistics still relevant? I will start this rather personal view with my answer.

**Statistics remains highly relevant irrespective of 'bigness' of data, its role remains what is has always been, but is even more important now. As a community, we need to improve our explanations and presentations to make more visible our relevance.**

*Keywords*: data, sampling, variability, inference, uncertainty

## Introduction

I am a statistician, but does that mean I cannot be a data scientist or a data analyst and claim expertise and knowledge that are highly relevant in this era of big data? Does a data scientist have different skills? Should I feel threatened professionally, and is my discipline becoming irrelevant? We are all part of the "information ecosystem" (Al Gore, the Assault on Reason, 2017). We have moved from systems of rather clunky data acquisition, taking days, weeks, months to now the internet of things, social media, and the citizen scientist- with data arriving at unprecedented rates, where everyone may have access but may not have the skills needed to make sense of the data. Who checks the quality, who understands

Download English Version:

https://daneshyari.com/en/article/7548496

Download Persian Version:

https://daneshyari.com/article/7548496

Daneshyari.com