

## **Application of Statistics in Commerce, Economics and Social Science: Challenges and the Future ahead**

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### *Abstract*

*There is an emergent need to redefine the new disciplines of social science and the modern day economics. This study makes a qualitative investigation into the institutional context of the problems and challenges that face the world of statistics and how 'innovation' can be the key-word to a successful application of statistics. The paper tries to highlight the application of statistics in the new disciplines and structures that pose new challenges and problems for statistics in the field of field of commerce, economics and social-science. This involves identification of the new technologies and processes which have the potential and the propensity to alleviate the concerns and make statistics a dependable tool for analysis. The investigation outlines the role of Intermediate Data Structure (IDS), data reduction and compression, neural networks, machine learning and Virtual Agents for managing historical longitudinal data. The new tribe of statisticians are required to develop specialised skills for managing data in the evolved fields of commerce, economics and social sciences.*

**Keywords:** Neural Network, Intermediate Data Structure (IDS), Virtual Agents

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