

Armenian Statistical Web Lab

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1. Introduction

The statistics and statistical software constitute a considerable share of concern of many researchers. The increasing numbers of international journals valuating statistical analysis of data are just a reason to seek statistical advice. Researchers in Armenia often have difficulties to find such qualified help.

One of the promising and productive paths for this problem solution is usage of distance education and consulting via the Internet.

This article describes the project “Armenian Statistical Web Lab” elaborated at the Institute for Informatics and Automation Problems of Armenian National Academy of Sciences (NAS) and of Yerevan State University (YSU). One motivation for this work stems from a need to supply people with reference information about modern statistical methods and computer packages in Armenian.

2. The Project

Recently, in collaboration with some scientists and professors of YSU and NAS of Armenia we have published a textbook and a problem-book for graduate and post-graduate students named “Probability and Applied Statistics”. “Armenian Statistical Web Lab” is coming from the materials of these books and is under construction now. We are lightening on pages of this site the essentials of applied statistics and statistical software, we are trying to give considerable notice to use of popular methods and ideas of advanced statistical analysis.

In this unconventional laboratory statistical concepts are designed to be introduced via mixture of lectures, tutorials, graphical tools, samples of data sets, applets, simulations and several tests. Some of these modules must be interactive in that the user may participate through the course of the program by changing parameters, moving points, creating charts, etc. Unlike a textbook, demonstration programs are linked in, which the student can use to explore how changes in a single data value influence the results of different calculations. The user also will be able to view demos, quickly find the definitions for unknown terms, and follow up on related ideas. Thus, unlike a textbook, simply clicking on the word allows the user to easily find definitions for unfamiliar concepts.

Generally, implementation of procedures for statistical information displaying in the Internet can take two approaches, referred to as server-side and client-side, depending on where the statistical package resides. We use the server-side approach, for which the server computer does all of the computations, and the client only needs to be able to view the resulting text, graphics, animations and sound. The special forms used as the interface for producing the desired results from the statistical package. The resulting web page could include links to other text, graphics, and perhaps animation clips.

3. Conclusion

«Armenian Statistical Web Lab" follows to a new internet-educational approach for Armenia. It is an attempt for further progressing of Armenian “branches” of the Internet and will contribute to aggregating the mass Armenian audience, remote students and colleagues.

The idea of this project is based on the following premises:

- Great number of people has no opportunity or time to attend general courses in statistics and appreciate being able to study at times and places convenient to them.
- There is a need of such web site in Armenian.
- The important principles of statistics are remarkably easy to understand if they can be seen.
- Statistics can be presented with interest and fun.

Evidently, the development of such online Armenian resources will positively effect on the realization of further statistical researches in the Republic.

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RÉSUMÉ

Web lab statistique armenien

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Le article decrives le projet “Web lab statistique armenien” élaboré à l’Institut de problèmes d’informatique et d’automation de l’Académie national des sciences d’Arménie et de l’Université d’état de Erevan. Se laboratoire est projectée à presenter les methods statistiques pour offre peuple avec information de référence à l’arménien.