

Perspectives of the Global Computer Networks in the Statistical Education and Practice of the Faculty of Economics in Skopje, Macedonia

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1. Current Situation

Recently, the information and telecommunication technologies have had a major impact on the statistical practice and education. This conclusion has not yet had its practical implications at the Faculty of Economics in Skopje as a user of statistical data. The World Wide Web is the leading service in the area of statistical research and education within the global and broadly accepted computer network Internet. According to UN/ECE Statistics Division, of 55 member-states of ECE, 44 have Web sites of the National Statistics Agencies which serve for presenting and browsing statistical data.

As of 1996, the PHARE National Programme for installation of hardware and a software for supporting collection, processing and dissemination of data has been implemented in the Statistical Office of the Republic of Macedonia. However, the access to the statistical data has not been fully covered and developed. The PHARE Sector Operational Programme, which is due to be implemented in the upcoming two years in the Statistical Office of the Republic of Macedonia, envisages establishment of an adequate strategy, political and technical environment for dissemination of data.

One of the major users of statistical data is the Faculty of Economics in Skopje. The Faculty of Economics has been using the data of the Statistical Office of the Republic of Macedonia in a traditional manner, that is, it has solely used the printed regular and specialized publications. The educational courses of the students at the Faculty of Economics in statistics have been mainly conducted by means of using school examples and without computers. Only some of the undergraduate students have taken one informatics-related discipline which makes it difficult to introduce the information technologies for studying the statistics disciplines.

At the Faculty of Economics, there is a local computer network linked to Internet as well as a computer laboratory with micro-computers of latest types.

2. Research Results and Concluding Remarks

A survey has been conducted among the students who have already studied a number of economic disciplines and have passed the exam on Basic of Statistical Analysis, which is the only exam in the field of statistics which is mandatory for all the students. On basis of the results of the conducted survey one can conclude the following: As much as 93.6 per cent of the surveyed believe that the statistics, as basic quantitative methodology in the analysis of economic phenomena, is

important, but they have emphasized that the biggest difficulties relating to the subject was for them to memorize the mathematical formulas (77.4 per cent). Most of the surveyed said that during the presentation of the course, computer support should be used (80 per cent) along with practical examples (78 per cent). Taking into account that the courses in statistics have been thus far filled with school examples without any computer support and in view of the opinion of 81 per cent of the surveyed that the use of statistical software for illustration of the course contents would facilitate the process of absorption of the content, and given the world experiences, the introduction of new information technologies in the educational process on the group of courses in statistics has become an imperative.

Further, the segment of the survey which was supposed to determine the level of computer-related education of the students has led to important results. The fact that all surveyed students have already used a computer is promising just as the fact that 42 per cent of the surveyed have their home computer and 29 per cent used a computer at high school. 19 per cent of the surveyed have used Internet. Nonetheless, nearly half of the surveyed (48.6) used the computers for computer game, 30 per cent used a word processing software and only 2.7 per cent used a more complex software including, according to the survey, spreadsheets and database software packages the knowledge of which, is considered by western standards to be the basic level of computer-related education in the education of students in the field of economics and business. Bearing in mind the results of the survey and the technical possibilities of the Faculty of Economics in Skopje, it can be concluded that the main problem is not the inability to have access to computers, but the coordinated improvement of the information technology education through mandatory forms of education at all levels.

The global conclusion is that the use of computers and computer networks in the scholarly-research work and education at the Faculty of Economics is a great challenge. The outcomes would be following: simpler and more efficient access to data and a possibility for students to work with real data by means of a statistical software. The outcomes would be great indeed, but the success will depend on coordinated action of many institutions. We would like to point out that in parallel with the introduction of the new information technologies at the Statistical Office and at the Faculty of Economics, we should intensively work on improvement of the level of information technology education of all users. The accomplishment of this task is primarily within the responsibility of the Faculty of Economics given its leading role in the education of students who will be involved in economic research and practice.

RÉSUMÉ

Contrairement des tendances mondiales, les technologies des ordinateurs ont une influence petite en usagers et serveurs des données statistiques et informations dans la République de Macédoine. Dans la Institution statistique macédonienne, il faut appliquer la Programme sectorielle de PHARE. La programme embrasse l'établissement de stratégie, politique et milieu technique pour diffuser les données. La Faculté économique de Skopje a des possibilités techniques pour un accès de l'INTERNET, mais il n'y pas une approche adéquate dans le processus de l'enseignement et le recherche, pour l'utilisation des données statistiques à l'aide de l'INTERNET. Nous avons enrôlé une enquête parmi les étudiants. La conclusion de l'enquête est que l'étude de la statistique serait plus efficace avec l'usage des données réelles en assistance d'ordinateur.