Developing a Textbook for Learning Statistics on the Internet

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1. Introduction

The recent rapid growth of computer technology, in particular, of the Internet, has changed statistical education and statistical software. Nakano (1997) made a World Wide Web (WWW) interface for a statistical package. Merits of the WWW interface have been discussed in Thioulouse and Chevent (1996). Recently we can use some statistical software packages on the Internet (see West 1997, Yamaguchi et al. 1998 etc.). Such statistical software might be expected to be use when students study statistics. So some of the packages on the Internet for statistical education contain online textbooks. Müller (1998) presents interactive tools and graphical displays for statistical education, which can be used from a Java applet on the Internet. Another examples of statistical educational tools on the Internet can been seen in de Leeuw(1997) and the GASP homepage (see West 1997) provides some examples of educational statistical Java applets.

We are also developing educational statistical web pages corresponding to a textbook that is concerned with econometrics (Kikuchi and Watanabe 1999). In this paper we give an overview of the structure of the web pages. The URL of the top page is http://stat.eco.toyo.ac.jp/econo/.

2. Developing a Textbook on the Internet

Researchers from universities and research institutes in Japan are performing this project. This web-based textbook has same structure to the textbook edited by Kikuchi and Watanabe (1999). The published textbook (Kikuchi and Watanabe 1999) consists of two parts, the first part is for basic statistics and econometrics and the second part is for the latest frontiers of econometric

methods. One of the purposes of this project is to give supplements to the textbook and the other is to provide several tools for studying statistics and econometrics.

Each chapter of the web-based textbook contains the following topics:

Key words: This section gives key words and their brief explanations.

Main Topics: This section gives supplements to the corresponding chapter in the textbook.

Data: Some datasets are available in this section.

Link: This section gives a useful list of links to related pages.

Figure 1 shows a page of textbook on the Internet (note that this page is written in Japanese).



Figure 1. A Page in the Textbook (http://stat.eco.toyo.ac.jp/econo/).

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FRENCH RÉSUMÉ

Cet article donne une idée d'ensemble sur les pages statistique dans le Internet.