

Preface

Statistics is a science central to many disciplines: modern, big, and smart data analysis can only be performed with statistical scientific tools. This is the reason why statistics is fundamental and is taught in many curricula and used in many applications. The collection and analysis of data changes the way how we observe and understand real data. Nowadays, we are collecting more and more, mostly less structured, data, which require a new analysis method and challenge the classical ones. But even nowadays the ideas used for the development of the classical methods are the foundation to new and future methods.

At the Ladislaus von Bortkiewicz Chair of Statistics, School of Business and Economics in Humboldt-Universität zu Berlin, we are introducing students into this important science with the lectures “Statistics I & II.” The structure of these lectures and the methods used have changed over time, especially with the rise of the internet, but the topics taught are still the same.

In the end of the last millennium, we developed a set of hyperlinked web pages on CD, which covered even more than our lectures “Statistics I & II” in English, Spanish, French, Arabic, Portuguese, German, Indonesian, Italian, Polish, and Czech. This gave the students an easy access to data and methods.

An integral and important part of the CD were the interactive examples where the students can learn certain statistical facts by themselves. With wiki, we made a first version in German available in the internet (without interactive examples). But modern web technology nowadays allows much easier, better, and faster development of interactive examples than 15 years ago, which lead to this SmartBook with web-based interactive examples.

Dicebat Bernardus Carnotensis nos esse quasi nanos gigantum umeris insidentes, ut possimus plura eis et remotiora videre, non utique proprii visus acumine, aut eminentia corporis, sed quia in altum subvehimur et extollimur magnitudine gigantea.

Bernard of Chartres used to compare us to [puny] dwarfs perched on the shoulders of giants. He pointed out that we see more and farther than our predecessors, not because we have keener vision or greater height, but because we are lifted up and borne aloft on their gigantic stature.

Johannes von Salisbury: *Metalogicon* 3,4,46–50

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