

【巻頭言】

# Midlife Course Correction

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It has been the greatest professional privilege and honor of my life to be a member of the School of Management at Chukyo University for the past twenty five years. Here, I wish to summarize very briefly what I did during that time and my plans for the future.

During the 1990's I taught a grab-bag of topics, ranging from Karel the Robot to Mathematica to the simplex algorithm to HyperCard.

From the year 2000, I settled down to teaching spreadsheet modeling and simulation using Excel and Excel add-in software on Windows computers. Using Excel, students could quickly learn how to obtain answers using software that is almost universally available.

Using the add-in software that had then become available, students could be taught to set up and solve linear programming problems without having to learn the simplex algorithm. Intuitive Excel add-in software for Monte-Carlo simulation enabled students to input probability distributions and interpret output results by shape and easily understood properties. Had it been necessary to teach the mathematics of probability using symbols and formulas, we could not have covered anything useful in the time available. The disadvantage of the add-in software is that it is very, very expensive to buy.

I am now interested in the R computer language for statistics and the field of 'statistical learning'. R is a computer language specialized for data analysis and statistics. It is an open source language, completely free for anyone to use. While R requires more time to learn than does a spreadsheet program like Excel, it is vastly more powerful in extracting information from data. Further, an analysis using R is completely documented by its command history. Thus, it is reliably and transparently repeatable. This is not true of Excel.

In the roughly twenty years of its existence, R has become a widespread standard for data analysis. Statistical learning is statistics with the tools and outlook of machine learning mixed in. In particular it incorporates methods to take advantage of great increase in computing power, and to deal with the extremely large data sets that now exist. 'Statistical Learning' is a field that uses this new computing power to fold together methods from traditional statistics, both frequentist and Bayesian, and from machine learning that are more appropriate and powerful for exploring and analyzing the very large data sets that now arise.

The existence of a wealth of YouTube videos and internet extension courses by world-class universities means that anyone can do meaningful study that was just not possible before. I look forward to my continued 'return to school'.

I cannot end without expressing my gratitude for the great honor that the School of Management under Dean Mukahi conferred by naming me Professor Emeritus. It is an honor I most certainly do not deserve, but which I humbly and gratefully accept. Thank you to all of the faculty and staff who have supported (and put up with) me over the years. With its ever improving level of faculty, I have great confidence that the future of the School of Management and Chukyo University are indeed bright. Thank you School of Management. Thank you Dean Mukahi.

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