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Professional Automated Trading, Theory and Practice comes from several years of research and practice of successful implementation of automatic systematic trading strategies in the context of proprietary trading at a few major financial institutions and my own firm.

On one hand, trading is a science that is based on a variety of techniques coming from mathematics, physics, psychology, biology, and various computer science techniques. On the other hand it is an art of knowing and respecting the market and equally importantly of knowing oneself. But foremost it is a business that hinges on a carefully understood discipline and process of seeking reward under risk.

This book presents some of the science and some of the process involved in building a robotic diversified systematic trading business. The art is mostly left to the reader. You are encouraged to find your own way of crystallizing your intuition about the external world and translating it into trading models and risk management that fit best your psychology, capital, and business constraints.

The aim is to provide a set of tools to build a robust systematic trading business and is mostly directed toward proprietary trading groups, quantitative hedge funds, proprietary desks, and market-making businesses at investment banks, and asset management companies, as well as ambitious individual traders seeking to manage their own wealth on such principles.

The book is divided into an introductory section and four parts, each coming with a specific sub-goal. The introductory chapter aims at comparing the systematic and discretionary trading disciplines from several angles. They are discussed in the philosophical, business, and psychological contexts. It is an important analysis as it shows that the two disciplines are equally valid as far as their *raison d'être* and business efficiency are concerned. Hence it is argued that the choice between the two hinges on the psychological makeup of the trader. An overview of various types of systematic market players and specific techniques are presented in the historical context.

The book's central idea is to frame systematic trading in the framework of autonomous adaptive agents. This framework comes from recent studies in robotics and artificial life systems. It opens the avenue to implement