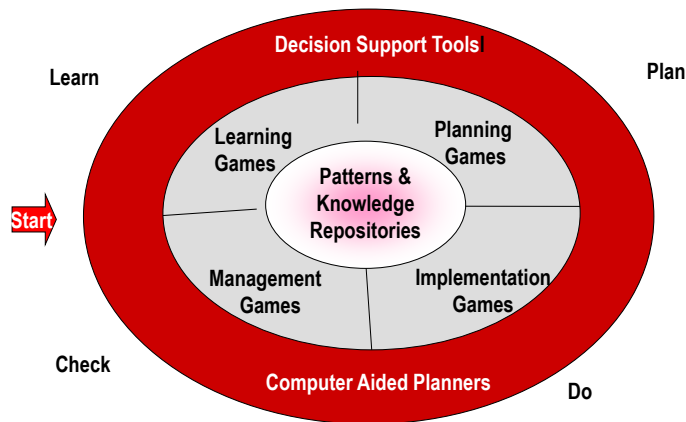


# Strategic Planning, Engineering, and Management for Digital Enterprises and Services

*Patterns. Methodology and a Computer Aided Planning Environment*



*Amjad Umar, Ph.D.*

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Umar, Amjad

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# **BOOK OUTLINE**

## **PREFACE**

## **SUGGESTED USAGE IN A COURSE**

## **ACRONYMS**

### **Module 1 – The Big Picture**

Chapter 1 : Digital Enterprises and Services – An Overview

Chapter 2: Strategic Planning and Patterns for Computer Aided Planning

Chapter 3: Cases for Experimentation

### **Module 2: Enterprise Business and Applications Planning**

Chapter 4: Business Strategy, Organizations and Management

Chapter 5: Enterprise Information Systems and Applications

Chapter 6: ERP Systems

### **Module 3: IT Infrastructure**

Chapter 7: Enterprise Architectures and IT Infrastructure

Chapter 8: Data Bases, Big Data, Micro Data and Business Intelligence

Chapter 9: Networks, the Internet and the Web (IoT and WoT)

### **Module 4: Synthesis**

Chapter 10: Artificial Intelligence and Intelligent Systems

Chapter 11: Computer Aided Planning, Engineering and Management

Chapter 12: Information Security Management

Chapter 13: Management of Next Generation Enterprises -- A Synthesis

## PREFACE

This book on strategic planning, engineering and management is based on corporate experience, consulting assignments, teaching graduate level courses, and research in computer aided consultanting. The topics and format of the book has been greatly influenced by practical insights gained through numerous consulting assignments and discussions with practitioners from different industry segments and World class organizations such as IBM, the United Nations, the Fulbright Foundation, Bell Communications Research, and Ford Motors. Development of graduate level courses in this overall space at the university of Pennsylvania, Harrisburg University of Science and Technology, and Fordham Graduate School of Business have also influenced this book. The salient features of this classroom tested book are:

- Emphasis on recent and relevant issues
- Focus on the planning, integration, security and administration of next generation enterprises
- Mixture of business and technologies, not just business or pure technology
- Several case studies and examples to illustrate the key points.
- A step by step methodology that shows how all the pieces fit together
- A computer aided decision support system (PISA) that can be used in classroom exercises

## The Learning Package (Text, Courseware, and Toolset)

It is very difficult to teach courses that cover concepts, methodologies, design tradeoffs, and evaluation of different solutions by relying on just powerpoint slides and discussion of case studies. Engaging the students in problem solving exercises is a valuable learning experience. Based on several years of consulting, management, and university teaching experience, I have assembled a package, shown in Figure 1, that consists of this text, lecture materials and a computer aided toolset. This package has been used in academic courses (management/engineering schools) and corporate training with very good results.

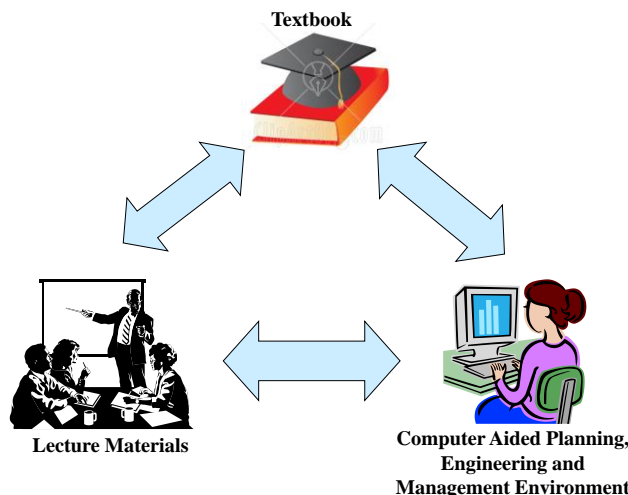


Figure 1: The Learning Package

**Textbook:** This practice-based book examines the most recent and relevant issues in strategic planning, engineering and management of digital enterprises and services. Topics include digital enterprises, strategic planning methodology, patterns to support strategic planning, business strategies, enterprise applications, digital infrastructure, and computer aided planning, engineering and management. Several case studies and examples illustrate the key points.

**Lecture Materials** (Courseware): Classroom tested lecture slides can be freely downloaded from the author site. Instructors can access student projects, sample exams, and other teaching materials. Through an instructor only site. See the author site ([www.amjadumar.com](http://www.amjadumar.com)) for details.

**Computer Aided Planning, Engineering and Management Environment:** A practice-based computer aided environment is available to support the text and the lecture materials. This environment called SPACE (Strategic Planning, Architectures, Controls and Education) can be and has been used extensively for academic as well as corporate training courses on IT planning, SOA, enterprise architectures and integration, information security, IS analysis and design, project planning and IT governance. The students seem to really enjoy SPACE experiments and typically “dry” topics come to life.