



## METADATA

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### Abstract

The present book is the result of many years of teaching in the Department of Informatics at the University of Piraeus, and the knowledge it provides is pluralistic, comprehensive, contemporary, and simultaneously a combination of theory and practice. Indeed, the reader can learn about the general business models applied in Web Information Systems (WIS), as well as their implementation using the latest prevailing technologies, such as Web Application Frameworks (WAF), service-oriented architectures, cloud computing, and mobile computing. It is evident that the entirety of the subject matter's knowledge cannot be fully and thoroughly described in a single textbook. Therefore, the reader is required to refer to sources and further study the writings. The book is divided into three main parts. The first part (Chapters 1-5) is theoretical and focuses on WIS, the second part (Chapters 6-12) is programming-oriented, while the third part (Chapter 13) examines the methodology one should follow to develop a WIS. Specifically, in Chapter 1, the reader is introduced to the basic concepts of the examined scientific fields, namely Information Systems (IS) and the new technological challenges arising from the use of the internet and the

adoption of new business models based on it. In Chapter 2, the capabilities and services offered by the internet to IS are examined in depth, as well as the interconnection of IS of different organizations through the internet. Information discovery, directory services, communication services, corporate web services, collaboration services, distance learning, and teleworking are examples of such services. In Chapter 3, the business models of e-business and e-commerce are presented and analyzed, along with their components. Additionally, e-auctions, electronic distribution channels for retailers and wholesalers, consumer behavior research, Business-to-Consumer (B2C), Consumer-to-Business (C2B), Consumer-to-Consumer (C2C), and Business-to-Business (B2B) models, electronic advertising, inter-business applications, intra-business e-business, e-government, and e-payments are examined. Chapter 4 deals with mobile computing (m-computing), which includes mobile phone and smart device technologies, cloud computing technology, ubiquitous computing, and pervasive computing, in terms of their applications in modern businesses and organizations, such as mobile commerce (m-commerce) and "smart" schools. Chapter 5 presents the archi

