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Nota di contenuto	Background -- ABC Computer -- Ada Programming Language -- Agile Methodology -- Amdahl 470 and 580 -- Analytic and Difference Engines -- Apple II and Macintosh -- Intelligence and Applications -- Atari Video Games -- Automated Teller Machine -- AXE System -- Binary Number System -- Boolean Algebra and Digital Computing -- C and C++ Programming Languages -- Cloud Computing and Distributed Systems -- CMMI and Software Process Improvement -- Colossus and Code Breaking at Bletchley Park -- Commodore PET and 64 -- COBOL and Compilers -- Databases -- DEC PDP 11 and VAX 11/780 Minicomputers -- Digital Photography -- EDVAC and ENIAC Computers -- Eliza Program -- Email Communication -- E-Commerce -- Formal Methods -- GPS System -- Graphical User Interface and Human Computer Interaction -- Harvard Mark I Computer -- Hollerith's Tabulating Machine and the birth of IBM -- Integrated Circuits --

Internet -- Iridium System -- Java Programming Language -- LEO Computers -- Manchester Baby and Mark I Computers -- Microprocessor -- Mobile Phone -- Mouse -- Player and Digital Music -- MS/DOS Operating System -- Office Software -- Open Source Software -- Object-Oriented Paradigm -- Personal and Home Computers -- Robotics -- Smartphones and Social Media -- Software Inspections -- Software Lifecycles -- The System/360 Revolution -- Transistor -- UNIX Operating System -- Von Neumann Architecture -- WiFi Technology -- -- World Wide Web -- and Z4 Computers -- Epilogue.

Sommario/riassunto

This encyclopedic reference provides a concise and engaging overview of the groundbreaking inventions and conceptual innovations that have shaped the field of computing, and the technology that runs the modern world. Each alphabetically-ordered entry presents a brief account of a pivotal innovation and the great minds behind it, selected from a wide range of diverse topics. Topics and features: Describes the development of Babbage’s computing machines, Leibniz’s binary arithmetic, Boole’s symbolic logic, and Von Neumann architecture Reviews a range of historical analog and digital computers, significant mainframes and minicomputers, and pioneering home and personal computers Discusses a selection of programming languages and operating systems, along with key concepts in software engineering and commercial computing Examines the invention of the transistor, the integrated circuit, and the microprocessor Relates the history of such developments in personal computing as the mouse, the GUI, Atari video games, and Microsoft Office Surveys innovations in communications, covering mobile phones, WiFi, the Internet and World Wide Web, e-commerce, smartphones, social media, and GPS Presents coverage of topics on artificial intelligence, the ATM, digital photography and digital music, robotics, and Wikipedia Contains self-test quizzes and a helpful glossary This enjoyable compendium will appeal to the general reader curious about the intellectual milestones that led to the digital age, as well as to the student of computer science seeking a primer on the history of their field. Dr. Gerard O'Regan is a CMMI software process improvement consultant with research interests including software quality and software process improvement, mathematical approaches to software quality, and the history of computing. He is the author of such Springer titles as World of Computing, Concise Guide to Formal Methods, Concise Guide to Software Engineering, and Guide to Discrete Mathematics.