

Who Should Read This Book

Quantum Computing: The Vedic Fabric of the Digital Universe is for information technology professionals, students, academics and lay people alike, who are involved in computer science, network applications, and hardware/software development. This book directly correlates quantum computing—the emerging information paradigm—and the ancient Veda and Vedic Literature.

Emergence of Quantum Computing

Continuing exponential improvements in classical processor speed, memory, and integration under Dennard scaling and 'Moore's law' are not sustainable due to quantum effects that pervade molecular (nano), atomic (ångström), and subatomic (pico) electronic/photonic scales. At the global scale, the Internet and World Wide Web effectively transcend classical space-time boundaries. Today, everyone everywhere has instant access to a vast storehouse of knowledge on a 24/7/365 basis.

Dr. Michio Kaku, Henry Semat Professor of Theoretical Physics at the Graduate Center of the City University of New York, co-founder of string field theory and author of several best-selling books, writes in *Physics of the Impossible* (Doubleday, Random House, ©2008):

Quantum computers may one day replace the familiar digital computer sitting on our desks. In fact, the future of the world's economy may one day depend on such computers, so there is enormous commercial interest in these technologies. One day Silicon Valley could become a Rust Belt, replaced by new technologies emerging from quantum computing.

Quantum computers—in various stages of R&D—operate according to the rules of quantum mechanics that govern waves and particles of the very small. They combine sequential and simultaneous processing into their very nature, enabling all computational pathways to be pursued at once. Therefore, one machine cycle—one 'tick of the quantum computer clock'—computes all possibilities at once. The direct benefit is solutions to problems in a fraction of the time required by conventional (classical) computers.

Emerging quantum applications promise to directly benefit information technology, energy sciences, earth sciences, materials science, life sciences, transportation, physical sciences, financial markets, multi-dimensional modeling and quantum simulation. Quantum algorithms include quantum search, database and counting; factoring, cryptography and error correction; order-finding, period-finding, and quantum teleportation.

Vedic Foundation to Quantum Computing

Quantum computing—including the quantum gates and algorithms at its core—has the same structure and function as the non-changing, eternal basis of natural law identified by quantum physicists as the Unified Field, and by ancient Vedic Science as the computational field of infinite correlation. This book:

- Maps foundational principles of computer science, quantum physics, mathematics, information theory, and Maharishi Vedic Science into a single model that identifies the Cosmic Computer® and Cosmic Switchboard® as the fundamental basis to computing and networking.
- Locates the Cosmic Computer® and Cosmic Switchboard® operating at the level of the Unified Field in terms of a computational infinity-point fabric pervading the Digital Universe®.
- Explains how to access the unlimited computational domain.
- Unfolds the direct correspondence between quantum computing and each of the forty branches of Veda and the Vedic Literature in terms of photonic (bosonic), electronic (fermionic), and pre-quantum (supersymmetric) domains.
- Develops the Hardware-Software Gap™, corresponding directly to the Vedic Gap™ located between the syllables and texts of Veda and the Vedic Literature. The Gap is the silent yet dynamic fountainhead of memory stationed within the totality of past, present, and future instructions.
- Traces the transformation of instructions from software program code to assembly language to machine language to memory via the Hardware-Software Gap™.
- Presents the correspondence between Vedic administering intelligence and Quantum Network Architecture™.

About the Author

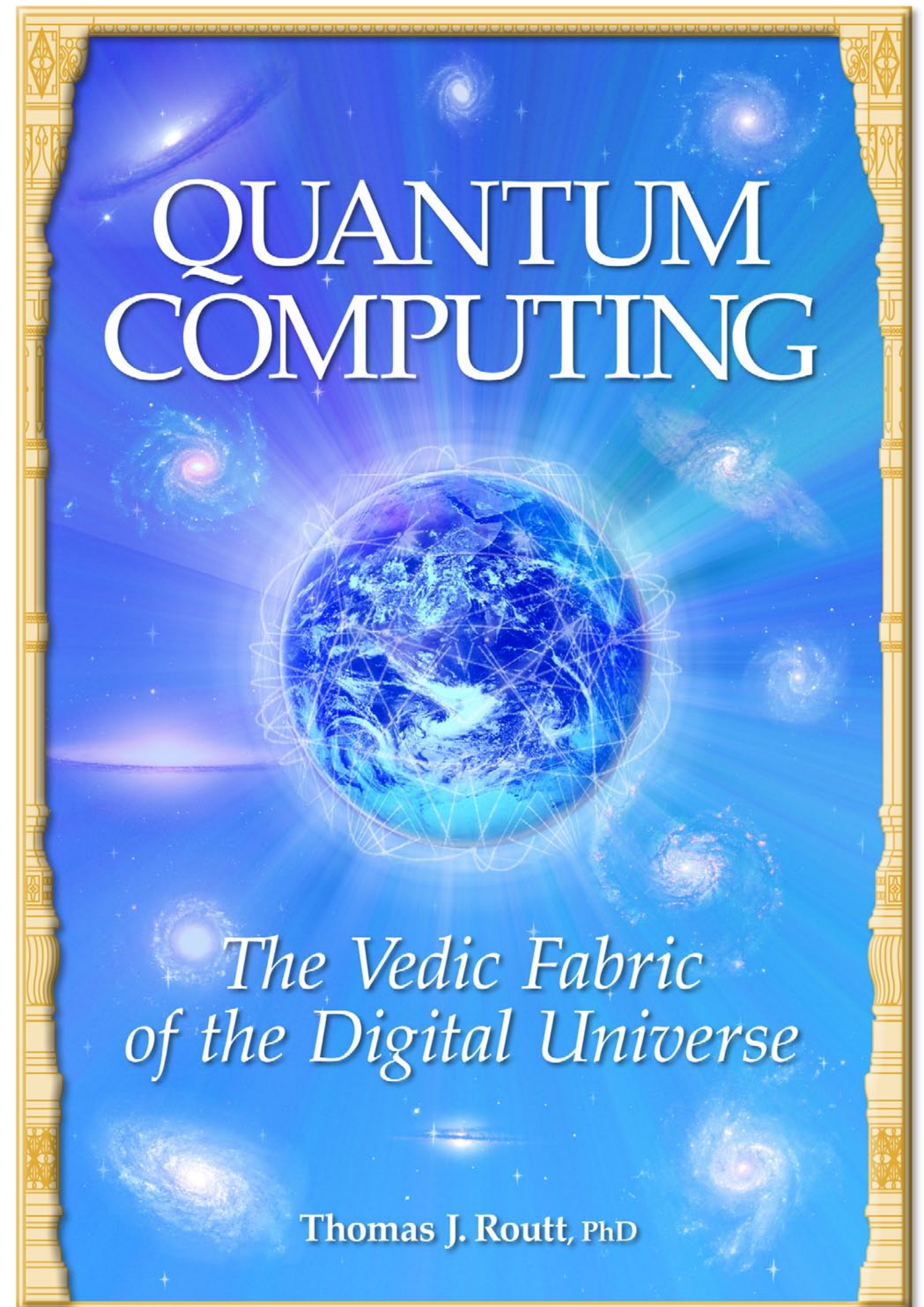
Thomas J. Routt, PhD, co-directs a hardware-software development firm providing global supply chain security solutions. Previously, he served as Manager, Boeing Network Architecture; as Consulting Network Architect to IBM senior executives and IBM's Fortune 500 customers in 40 countries; and as a Director of F5 Networks. He holds six patents issued and pending in quantum computing and information security. As keynote and broadband session chair at conferences worldwide, he has addressed tens of thousands of IT professionals and executives on six continents. Publications include 80 articles and two books in computer science, network architecture and information security. Educational background includes BSc, Environmental Science; MBA, Information Systems; PhD, Computer Science.

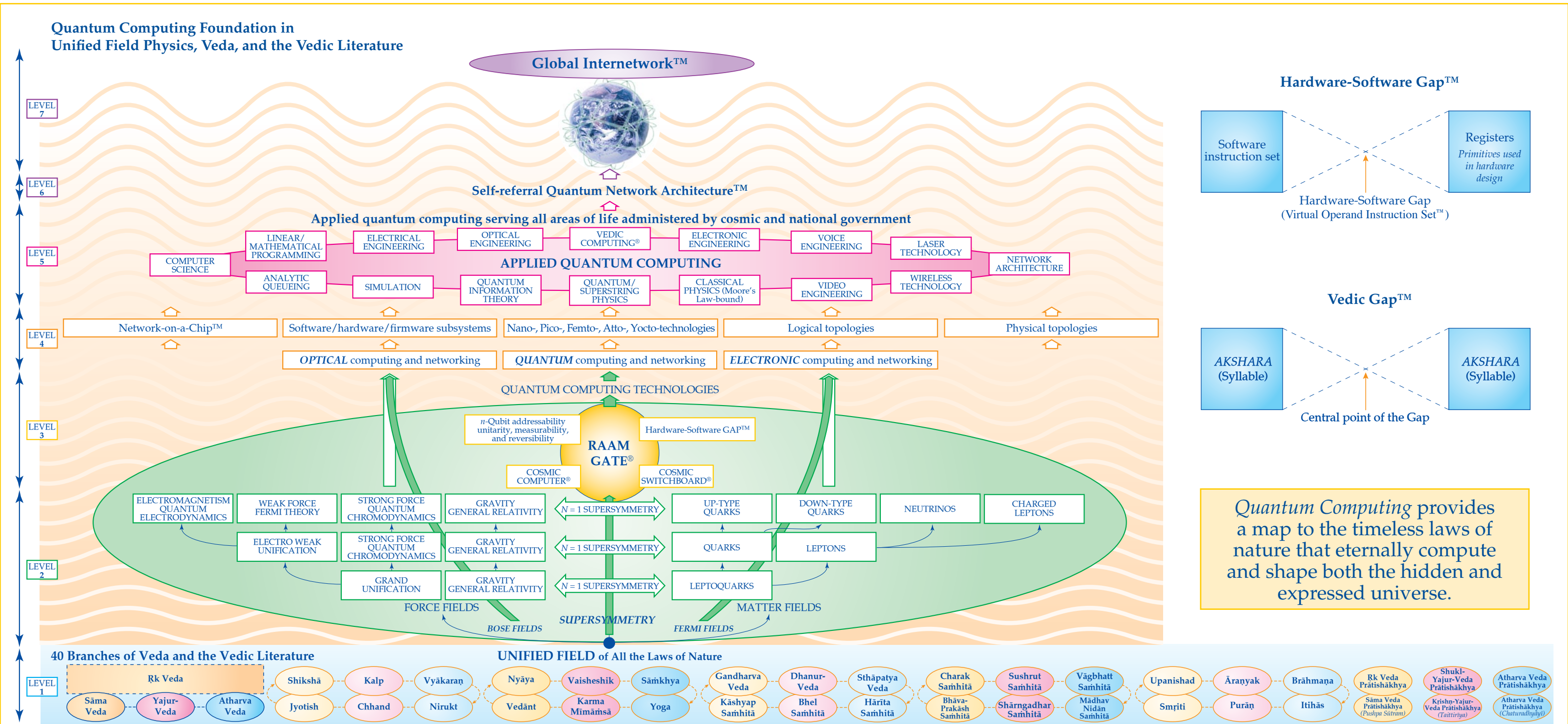
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About This Book

Quantum Computing: The Vedic Fabric of the Digital Universe portrays the astounding bridge between two scientific world-views—one modern, Western, and technology-based, and the other ancient, Eastern, and consciousness-based. Quantum Computing provides a guide to the striking parallels between the emerging field of quantum information processing and the ancient Veda and Vedic Literature, and its evolutionary, practical applications.

This book develops three major themes. First, digital evolution is proceeding on an oceanic scale to quantum computing, both at the component level and throughout the global Internet. Computer components today are designed and manufactured

at intrinsically quantum mechanical dimensions. At the global scale, the Internet and World Wide Web effectively transcend classical space-time boundaries. Today, everyone everywhere has instant access to a vast storehouse of knowledge on a 24/7/365 basis. At any given moment, a billion people interact with hundreds of millions of applications, through a trillion interconnected, intelligent devices.

Second, quantum computers may one day achieve application and networking breakthroughs thought to be impossible for classical computers. Quantum logic has one unique feature—it is not constrained by classical space-time physics. Continuing exponential evolution of classical computing is not sustainable

at either component or global information processing scales.

Third, foundational principles of computer science, quantum physics, mathematics, information theory, and Maharishi Vedic Science are mapped into a single unified model that identifies the Cosmic Computer® and Cosmic Switchboard® operating at the level of the Unified Field. Modern breakthroughs in quantum physics-based computation are correlated to the ancient Veda and Vedic Literature with a description of how to directly access the unlimited computational domain.

Quantum Computing is a seminal work that unfolds a new way of understanding computer science and information technology in terms of the underlying fabric of knowledge itself.

This book provides the foundation for a rich future of research, and reveals a new paradigm for developing advanced computing and information systems.

Like bestsellers *Physics of the Impossible* and *A Brief History of Time*, *Quantum Computing* is an eloquent expression of fundamental science, accessible to professionals and lay people alike. Discover the one-to-one correlation between *Quantum Computing* and *The Vedic Fabric of the Digital Universe*.

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