

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 rapidly diminishing returns in component miniaturization, clock speed, power, "dark" silicon, parallelism, and compute-intensive sequential processing bottlenecks.

Ironically, classical computer components and circuits today are fabricated and operate at intrinsically quantum mechanical scales, yet are not engineered to take advantage of the vast computational domain available at those 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. In the foreseeable future, billions of people will interact on a 24/7/365 basis with tens of billions of data-intensive applications through trillions of networked, intelligent systems, devices, components and sensors, generating yottabytes (10^{24} bytes) of data.

Quantum computing development is the necessary evolutionary foundation to an always-available Big Data Solutionscape. Emerging quantum computing applications offer the prospect to compute, store, search and retrieve virtually unlimited information at effectively unbounded scales in polynomial (tractable) time, regardless of the size of the exponential problem, leading to game-changing breakthroughs in several fields.

Dr. Michio Kaku, Henry Semat Professor of Theoretical Physics at the Graduate Center of the City University of New York and co-founder of string field theory, writes the following regarding the emergence of quantum computing in the bestseller *Physics of the Impossible* (©2008, Doubleday, Random House, pp. 66–69):

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.

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 is a recognized expert in quantum computing, network architecture, and information security. He has guided F500 enterprises in the architecture, design and deployment of US\$1B in network computing resources.

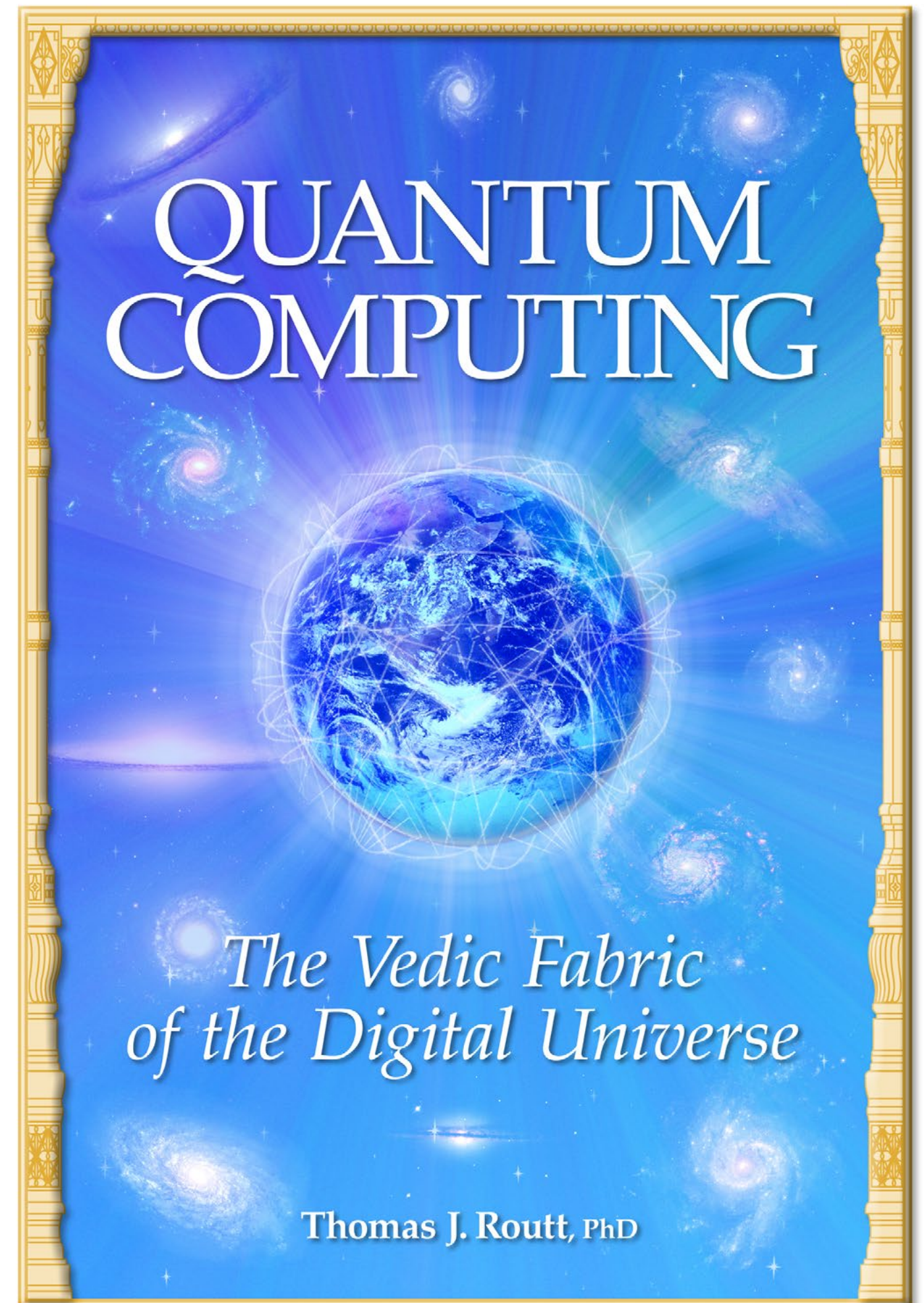
Dr. Routt holds four patents related to quantum computing and information security. Publications include eighty papers and two books in computer science, enterprise network architecture and information security. Educational background includes BS, Environmental Studies; MBA, Information Systems; PhD, Computer Science.

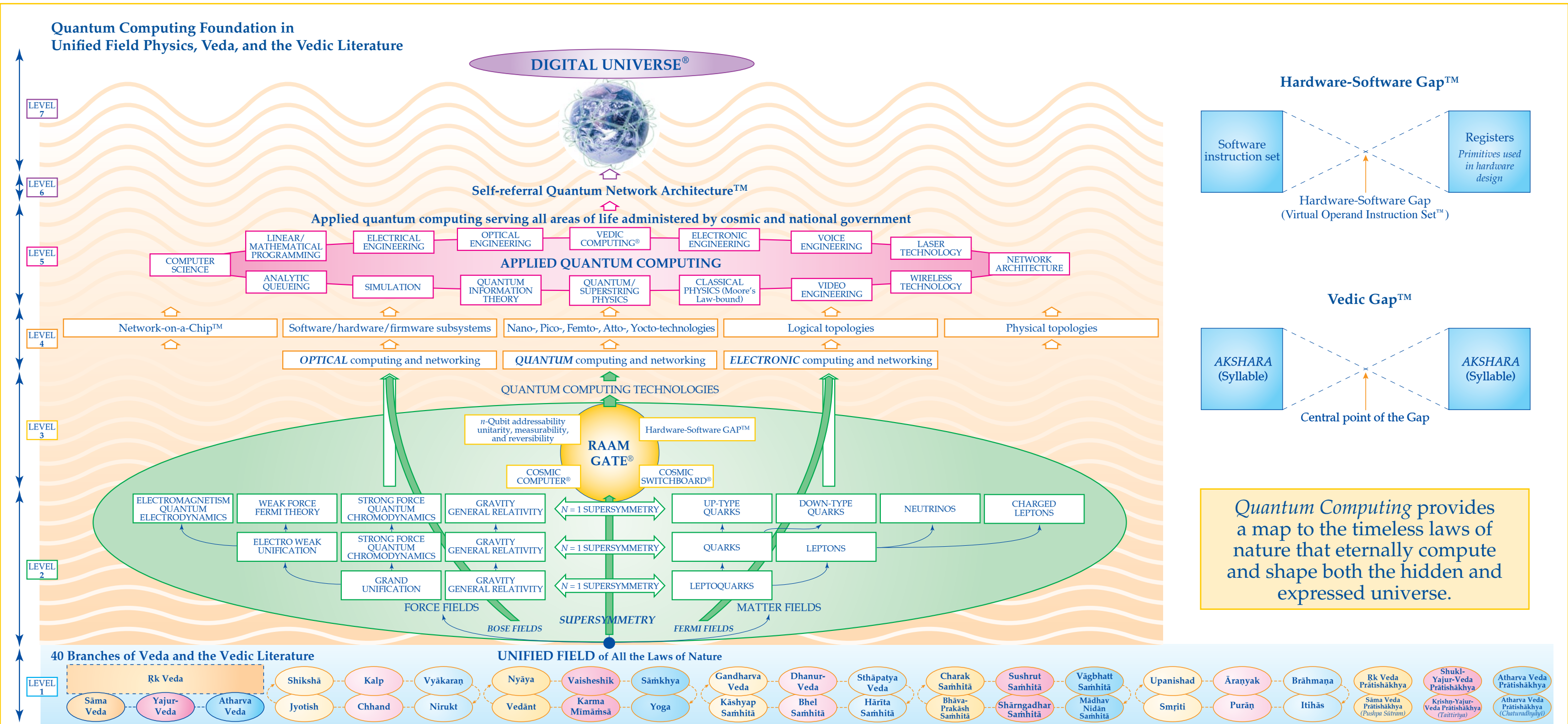
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About This Book

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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