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Nota di contenuto	Intro -- Preface -- Contents -- From Fiat to Crypto: The Present and Future of Money -- The Mystery of Money: What It Is and How It Works -- The Nature of Money -- The Fiat Money System -- A Modest Critique of Money -- Fiat Money Is Debt-Based -- Distortion of Price Signals -- The Economy Is Complex, Not Just Complicated -- Separation of State and Money in the Digital Age -- The Many Futures of Money -- Bitcoin, a Radical Idea Refusing to Die -- Finance 4.0, a Socio-Ecological Financial System -- References -- Qualified Money- A Better Financial System for the Future -- From Money to Bitcoin and Beyond -- A New Kind of Money: How the Idea Was Born -- What's Wrong with Our Financial Architecture? -- An Unfeasible Control Problem -- More "Control Variables" Needed -- Two Kinds of Electronic Money -- Europe's "Little" Mistake -- Vitamins for the Financial System -- We Could All Be Doing Well -- Money with a Memory -- Benefits of Money with Reputation -- Balancing Transparency and Anonymity -- A "Social Bitcoin" Could Sustain a Democratic Digital World -- Modern Socio-Economic Challenges Require a New Approach -- A Multidimensional Financial System -- Decentralized Information

Architectures and Qualified Money: A Social Bitcoin -- Decentralized Architectures -- Social Bitcoins and Web 4.0 -- How a Social Bitcoin Could Sustain Digital Diversity -- Outlook and Future Research Directions -- References -- Finance 4.0-A Socio-Ecological Finance System -- The Finance 4.0 Ambition -- The Finance 4.0 Framework -- Distributed Ledger Technology (DLT) -- Value-Sensitive Design -- The Cryptoeconomic Design of Finance 4.0 -- Relevance of Cryptoeconomic Design -- Designing Cryptoeconomic Systems -- The Finance 4.0 Token Economy -- Simulating the Token Design Space -- The Finance 4.0 Technology Landscape -- The Finance 4.0 Architecture. The Finance 4.0 Development Phases -- The Finance 4.0 Demonstrator -- The Finance 4.0 Governance System -- Blockchain Governance and Practical Implications -- Proof Mechanisms -- Research Outlook: Long-Termism -- Summary -- Author Contributions -- References -- An Interaction Support Processor to Promote Individual and Systemic Benefits -- Some Background -- Appendix -- Claims -- Glossary.

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## Sommario/riassunto

This Open Access book outlines ideas for a novel, scalable and, above all, sustainable financial system. We all know that today's global markets are unsustainable and global governance is not effective enough. Given this situation, could one boost smart human coordination, sustainability and resilience by tweaking society at its core: the monetary system? A Computational Social Science team at ETH Zürich has indeed worked on a concept and little demonstrator for a new financial system, called "Finance 4.0" or just "FIN4", which combines blockchain technology with the Internet of Things ("IoT"). What if communities could reward sustainable actions by issuing their own money ("tokens")? Would people behave differently, when various externalities became visible and were actionable through cryptographic tokens? Could a novel, participatory, multi-dimensional financial system be created? Could it be run by the people for the people and lead to more societal resilience than today's financial system (which is effectively one-dimensional due to its almost frictionless exchange)? How could one manage such a system in an ethical and democratic way? This book presents some early attempts in a nascent field, but provides a fresh view on what cryptoeconomic systems could do for us, for a circular economy, and for scalable, sustainable action.

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