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Nota di contenuto	Cover; Contents; Foreword; Preface; Acknowledgments; Introduction; 1 Let's Get Small; From Feynman to Drexler; Technology Makes a Tiny Difference; Current Policy and Nanotech; Intellectual Property: Unique Concerns of Nano; Ethical, Policy, and Social Implications of Future Nanotech; The Nano-now: What's Currently Happening in Micro-manufacturing and Nano; An Outline for the Investigation; 2 Nano-futures; Utopian Visionaries and Dystopian Doomsayers; Special Problems of Manufacturing at the Nanoscale; Nanotechnology Achievements: The Nano-now; Nano-artifacts: Some New Philosophical Challenges Can an Idea be Other than Abstract? When Software and Hardware Merge; 3 The Nano-now; A Bridge to the Future: The Trend of 'Micro-manufacturing'; A New Industrial Revolution?; Software and IP, a (Failed) Experiment in Inducing Scarcity?; Alternatives to IP and Innovation in ICT; Innovation and Growth: Profiting without Scarcity; Capitalism without Capital; 4 Law and Ethics: Rules, Regulations, and Rights in Nanowares; The Environment; Safety: Ethical Duties in Case of Consent; Security: Can and Should We Prevent Evil Uses of Nanotechnology? Security and Synthetic Biology: Precursor to Nanotech? The Path of Openness; 5 Things in Themselves: Redefining Intellectual Property in the Nano-age; The Emergence of Intellectual Property; Ideas versus

Expressions; Atoms for Bits: Pragmatic and Theoretical Challenges; IP Challenges in Present and Future Nanowares; Contract versus Monopoly; Some Initial Requirements; Empirical Work to be Done; 6 Authorship and Artifacts: Remaking IP Law for Future Objects; Rights to Expressions: History and Theory; Nature, Creation, Artifact, and Invention; Revising Our Relationships with Artifacts Creation and Dissemination of Types versus Goods Ethical Problems with Traditional IP; Conclusion; 7 Economics, Surplus, and Justice; Justice and Monopoly; Ideas as Commons and Truly Free Markets; The Scientific Commons and the Marketplace; Justice and Law: Rejecting Positivism; A Vacuum of Justice; Progress and Justice: Embracing a Natural Basis for the Good; Rights to Tokens and Exchanges of Types: Pragmatic and Theoretical Approaches to Markets without Scarcity; Tiered pricing models; 8 Nanotech Nightmares; Scientific Duties and Dangerous Technologies; The Scientific Firewall The Bioethics Example Respect, Beneficence, and Justice; Extending the Moral Horizon; Smallpox, Ice-nine, and Nanowares; The 'Eventual' Fallacy; Implications for Institutions; Does the Future Need Us?; 9 The Final Convergence; Nanowares: What Are They, Really?; Ethics and Innovation; Choosing to Do Better; The Logical Necessity of Open Innovation; A New Theory of IP and Its Role in Innovation; The Creativity Economy; Nanowares and Converging Philosophical Inquiries; Notes; Bibliography; Index;

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Sommario/riassunto

This book defines 'nanowares' as the ideas and products arising out of nanotechnology. Koepsell argues that these rapidly developing new technologies demand a new approach to scientific discovery and innovation in our society. He takes established ideas from social philosophy and applies them to the nanoparticle world. In doing so he breaks down the subject into its elemental form and from there we are better able to understand how these elements fit into the construction of a more complex system of products, rules and regulations about these products. Where existing research in the field has

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