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Nota di contenuto	Introduction: Towards Responsible Plant Data Linkage -- Part I: Experiences from the Trenches -- Between Subsistence and Agronomy: Carl Linnaeus (1707-1778) on Famine Foods -- Managing Data in Crop Breeding: A Hundred Year Challenge -- Data, Duplication, and the Decentralisation of Crop Collections -- Data Management in a Multi-Disciplinary African RTB Crop Breeding Program -- Part II: Technical Challenges of Data Linkage -- Challenges to Data Linkage in Plants: Two Parables from the Pea -- From Farm to FAIR: The Trials of Linking and Sharing Wheat Research Data -- Plant Scientific Data Integration, From Building Community Standards to Defining a Consistent Data Lifecycle -- Part III: Governance Challenges of Data Linkage Spinning the Agricultural Data Web -- Creating a Digital Marketplace for Agrobiodiversity and Plant Genetic Sequence Data: Legal and Ethical Considerations of an AI and Blackchain Based Solution -- Digital Sequence Information and Genetic Resources: GlobalPolicy Meets Interoperability -- Collaboration in Crop Diversity Management: A

Pragmatist Approach to Data Sharing -- Part IV: Social Challenges of Data Linkage -- The Research Data Alliance Interest Group on Agricultural Data: Supporting a Global Community of Practice -- Ethical and Legal Considerations in Smart Farming: A Farmer's Perspective -- Responsibility Beyond Ethics and Infrastructures: Conceptual and Normative Considerations for Plant Data Linkage and Agriculture.

Sommario/riassunto

This open access book provides the first systematic overview of existing challenges and opportunities for responsible data linkage, and a cutting-edge assessment of which steps need to be taken to ensure that plant data are ethically shared and used for the benefit of ensuring global food security – one of the UN's Sustainable Development Goals. The volume focuses on the contemporary contours of such challenges through sustained engagement with current and historical initiatives and discussion of best practices and prospective future directions for ensuring responsible plant data linkage. The volume is divided into four sections that include case studies of plant data use and linkage in the context of particular research projects, breeding programs, and historical research. It address technical challenges of data linkage in developing key tools, standards and infrastructures, and examines governance challenges of data linkage in relation to socioeconomic andenvironmental research and data collection. Finally, the last section addresses issues raised by new data production and linkage methods for the inclusion of agriculture's diverse stakeholders. This book brings together leading experts in data curation, data governance and data studies from a variety of fields, including data science, plant science, agricultural research, science policy, data ethics and the philosophy, history and social studies of plant science.