Technology Transfer and Intellectual Property Issues

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Technology Transfer and Intellectual Property Issues is part of the Intellectual Property in the 21st Century Series and is written by a collection of authors. Through ten chapters, the various authors explore and discuss a range of uses, implementations, implications, and consequences of technology transfer and intellectual property. Among some of the various topics discussed are climate change, sustainable energy, sharing and implementing new technologies in developing countries, counterfeiting, the Kyoto Protocol, and intellectual property licensing. Technology transfer is relevant because it pertains to intra-country transfers that occur between individuals or companies. Technology Transfer and Intellectual Property Issues centers on the inter-country and inter-culture transfer of technology.

The book focuses on two main topics: the first topic involves the process of transferring and implementing technologies between developed and developing countries, and the second topic analyzes intellectual property itself as viewed from a global perspective. The various authors discuss technology transfer in the context of the “new climate regime” as signifying the many technologies that are aimed at mitigating global warming and promoting sustainability. While these two topics are distinguished from the outset, beginning with the title of the book, the organization of the chapters is a little confounded. The editors juggle, and at times even meander, between the two topics which leaves the reader bemused as to the direction of the book. Despite this one downside, the essays chosen are particularly relevant and enlightening on
their respective topics. The premise of this review is based on what represents the intention and attitude of the book.

The first chapter is titled “Technology Transfer Challenges within the New Climate Regime” and is written by Charikleia Karakosta, Haris Doukas, and John Psarras. Chapter One concentrates on the transfer and adoption of sustainable energies, particularly transfers from industrialized countries to developing countries. Through a discussion of previous studies and papers, the authors analyze the types of people that are most willing to accept and implement a new technology, here referred to as innovators. Also discussed are people’s various perceptions, perceived risks of the new technology, and the impact these perceptions influence one’s decision on whether to adopt the new technology. The chapter ends with a survey of various sustainable energy projects currently being undertaken by developing countries including Chile, Kenya, and Thailand. What is surprising are the similarities between the implementation of technology transfers in developing countries compared to the implementation of technology transfers within a developed country, such as the United States. The authors develop the idea throughout the chapters in a well-developed and clearly-presented analysis of transferring sustainable energy technologies.

The second chapter is titled “The Importance of Networks and Social Structural Factors: Social and Community Context versus Individual and Socioeconomic Predictors of New Agricultural Technology Sustainability” and is written by Karl A. Jicha, Robert L. Moxley, and Aida Librero. Chapter Two is an intensive study and analysis of two new and competitively superior peanut varieties as well as farming techniques in the Philippines. Extension agents were sent to “commercialization” communities, and these communities were the focus of highly concentrated adoption efforts. Nearby “non-commercialization” communities of peanut farmers
were used as a control to compare the effectiveness of the adoption efforts. The result of the study was that the intensive efforts by extension agents had a significant influence on the sustainable adoption of the high-yield peanut varieties. While the focus of this study was centered in the Philippines, the implications are universal. The authors’ analysis concludes that simply inventing and introducing a new technology will not always ensure its adoption. Concentrated efforts must be made in order to overcome apprehensions of adopting a broad, new technology.

These first two chapters, taken together, do justice to the title and the aim of the book. Chapter One begins with a theoretical overview of technology transfer and moves into a discussion of its most important elements as well as the implications of technology transfer. The end of Chapter One transitions nicely into Chapter Two, where an in-depth study of an actual technology transfer project is presented. These two essays are highly suggested for the reader who is interested in learning about global technology transfer and implementation.

The third chapter is written by Deepthi Elizabeth Kolady and William Lesser and the authors focus on the impact of plant intellectual property rights. The chapter begins with a brief overview of intellectual property rights and a history of intellectual property rights in plants with an emphasis particularly on the Plant Variety Protection (PVP). It is not disputed that investment and research of plant varieties has increased significantly as a result of the introduction of PVP. However, the benefits from the increase in plant varieties seem ambiguous, especially when coupled with the increased cost of the protected plant varieties. While there is a discussion of the effect of PVP on developing countries at the end of the chapter, the main focus of this chapter is concerned with intellectual property rights. Directly, there is very little discussion of technology
transfer in this chapter. But, the topic of technology transfers remain within the purview of the book through its discussion of intellectual property issues in developing countries.

The eighth chapter is titled “Intellectual Property as a Tool for Development” and is written by Marco Righi and Largo B. Pontecorvo. Out of the other authors, these two do the best job of combining the two main focuses of the book. The chapter begins with an historical overview of the development of patents beginning in the fifteenth century. The authors then move on to discuss the current state of patent law by focusing mainly on U.S. patent law. The authors also mention the current trend away from patents in the open innovation movement which is a very important concept with significant implications for intellectual property. The chapter concludes with a discussion of how intellectual property is utilized best as a tool for development in developing countries. Intermixed in this final part of the chapter are examples of how intellectual property has served to inhibit developing countries by overprotecting and monopolizing innovations. A common tradeoff between these two concepts is that a formal IP system may encourage corporations to invest in emerging markets as exampled in developing countries. On the other hand, developing countries may have trouble gaining access to protected technologies due to high fees and the exclusive nature of intellectual property rights.

The ninth chapter is titled “The Changing Face of Intellectual Assets: Trade Secrets and the Economic Espionage Act” and is written by G. Scott Erickson and Chris A. Carr. The authors center the discussion on the rising popularity of trade secrets as a means to protect corporate assets. Erickson and Carr begin with an explanation of Intellectual Capital and Knowledge Management within the corporate realm. The authors then move on to discuss the Economic Espionage Act which was enacted in 1997. They analyze the impact the Act has had on trade secrets, as well as look at certain lawsuits that have been filed under the Act in order to
determine what types of intellectual property are considered valuable to competing companies. Perhaps, the most important point the writers make is the corporate trend away from patents and copyrights compared to the current pattern towards trade secrets. The authors posit that the corporate trend is a result of the rapid pace of innovation nowadays and the importance of secrecy. Erickson and Carr’s chapter contains the most focused discussion on intellectual property itself and omits any discussion of actual technology transfer. Despite the fact that this chapter is a little out of place within the book, it is the most current in terms of the direction corporations are taking their intellectual property strategies.

Overall, the organizational structure of the book does not detract much from the individual chapters. Because each chapter is its own self-contained essay, they provide their own relevance and importance. However, taken as a whole, Righi and Pontecorvo’s chapter in *Technology Transfer and Intellectual Property Issues* synthesizes the two main issues best. The authors do this with a brief, yet accurate and broad discussion of the current state of intellectual property. Furthermore, the writers discuss the impact intellectual property has had on the transferability of innovation between developed and developing countries. On the whole, this book is a great resource for learning about technology transfer on the global scale, as well as some particularized issues within intellectual property. It is recommended for readers who either wish to learn about issues involved with implementing new sustainable energy technologies or readers who are interested in global intellectual property issues.