

2015

## Book Review: Innovation and Inequality: Emerging Technologies in an Unequal World by Susan Cozzens and Dhanaraj Thakur

Samuel Hoff  
*Delaware State University*

Follow this and additional works at: <http://digitalcommons.northgeorgia.edu/issr>

 Part of the [Anthropology Commons](#), [Communication Commons](#), [Economics Commons](#), [Geography Commons](#), [International and Area Studies Commons](#), [Political Science Commons](#), and the [Public Affairs, Public Policy and Public Administration Commons](#)

---

### Recommended Citation

Hoff, Samuel (2015) "Book Review: Innovation and Inequality: Emerging Technologies in an Unequal World by Susan Cozzens and Dhanaraj Thakur," *International Social Science Review*: Vol. 91: Iss. 2, Article 17.  
Available at: <http://digitalcommons.northgeorgia.edu/issr/vol91/iss2/17>

This Book Review is brought to you for free and open access by Nighthawks Open Institutional Repository. It has been accepted for inclusion in International Social Science Review by an authorized administrator of Nighthawks Open Institutional Repository.

**Cozzens, Susan, and Dhanaraj Thakur, eds. *Innovation and Inequality: Emerging Technologies in an Unequal World*. Northampton: Edward Elgar Publishing, 2014. xii + 344 pages. Hardcover, \$145.00.**

Public policy expert Susan Cozzens and political scientist Dhanaraj Thakur examine the relationship between emerging technologies and inequality in this edited work, while reporting the results of comparative case studies tracing the costs and benefits of recombinant insulin, genetically modified corn, mobile phones, open-source software, and plant tissue culture on the economic well-being of eight nations across three continents. The editors were joined by a distinguished group of researchers, including consultants Isabel Bortagaray and Roland Brouwer, university professors Mario Paulo Falcao, Sonia D. Gatchair, and J. Adam Holbrook, postgraduate scholar Lisa A. Pace, UNESCO researcher Lidia Brito, and institute scholar Bernd Beckert. Using a broad definition of inequality, Cozzens and Thakur discover that the empirically-based case studies “in fact reveal a more differentiated reality than theory would suggest” (p. 8), thus calling into question previous conceptual literature.

The book is divided into four parts. After identifying problems and concepts in the Introduction, Cozzens and Thakur furnish overviews of the nations included in the study, which represent the Americas (The United States, Canada, Jamaica, Costa Rica, Argentina), Europe (Germany), and Africa (Malta, Mozambique). Though all possess a democratic form of government, the countries differed in size, national income levels, and science and technology resources.

Part II of the text contains separate chapters on each of the emerging technologies. Regarding recombinant insulin – the only one of the new technologies that makes the difference between life and death – it was found to be widely distributed in all of the nations studied despite constraints, albeit it was more accessible in advanced than developing countries. In the discussion of genetically modified corn, the authors note the vast difference in the regulatory approaches of the United States and Europe. Given that distinction, it is not surprising that researchers found uneven distribution in the nations where such a crop is planted. Pertaining to mobile phones, the authors indicate that penetration rates exceeded 90 percent in all of the nations studied except Canada and Mozambique. However, there are income disparities associated with access and regulation, and the production of phone components is still dominated by nations of the Global North. In analyzing open-source software, the researchers conclude that there are lower adoption rates in developing countries due to affordability, skills, and enforcement. In the biotechnology area of plant tissue culture – the process of growing a new plant from the single cell of an older one – the authors assert that there are only a few highly skilled job opportunities associated with that technology and that public investment is needed to make benefits available more broadly.

In Part III, the book’s contributors apply the emerging technologies to the economic and cultural traits of the countries chosen and make policy recommendations. For example, Jamaican authorities are encouraged to seek external assistance in order to promote diffusion of knowledge and skill. German officials are counseled to strengthen education in computer science and programming as a way to improve shortcomings in use of open-source software. To

reduce inequality created by its public policies, Malta is encouraged to adopt a more transparent approach to its public sector decision-making practices. Finally, due to the fact that the United States needs world markets to be successful, it is suggested that they establish partnerships in order to build a global human resource base for science and engineering.

Part IV encompasses the editors' concluding chapter. Clearly, emerging technologies like those examined in the text suffer from multiple barriers to access, including price, infrastructure, skill levels, and interventions. However, Cozzens and Thakur advance several suggestions for improving benefits associated with new products, such as increasing education levels, addressing conditions that reduce absorptive capacity, and ensuring that employment opportunities are open to men and women equally. Overall, they conclude that human resource and innovation policies had more direct influence on distributional outcomes than research policies.

Over the last two decades, several studies have attempted to assess the intersection of technology and economic performance. In his 1997 work, *The Third Industrial Revolution: Technology, Productivity and Income Inequality*, Jeremy Greenwood explores how periods of rapid technological change can widen inequality. Gilles Saint-Paul's 2008 study, *Innovation and Inequality: How Does Technical Progress Affect Workers?*, develops several links between innovation and inequality. In their 2008 book, editors Judith Burnett, Peter Senker, and Kathy Walker explore myths associated with technology, and in their 2009 co-authored publication, James C. Witte and Susan E. Mannon depict how the Internet is both a mirror and cause of contemporary social inequities. Lastly, a 2013 study, *Technology, Society and Inequality: New Horizons and Contested Futures*, edited by Erika Cudworth, Peter Senker, and Kathy Walker, probes relations between technologies, inequalities and exploitation; identifies issues relating to technology and development; and projects opportunities associated with future products. As Cozzens and Thakur observe, inequality has been relatively ignored in the fields of science and technology studies, science and innovation policy studies, and the economics of innovation. By including the dynamics of inequality, the contributors to the present volume confirmed the hypothesis that whoever owns the technology has sway over decisions associated with its production and distribution.

Though the empirical orientation and case study approach in the book are commendable, there are deficiencies in method and presentation. First, the choice of countries is top-heavy on the Americas and short on European nations. Also, according to the editors, the exclusion of Asian nations is due to the lack of travel funds. Second, the finding that context of technological inventions makes less difference to distribution than previously believed is questionable because the study is limited to countries with democratic governments. Third, although it is understood that four of the five emerging technologies were created in America, only the chapters on Argentina and the United States fully integrate all five of the emerging technologies into the analysis.

*Innovation and Inequality: Emerging Technologies in an Unequal World* contributes worthwhile information to a growing field of study. Perhaps the most valuable lessons learned from evaluating the link between innovation and inequality are advanced by the editors in the final chapter: A “broad range of actors and interventions affect the process” and “many pathways are open” to alleviate access and distribution challenges associated with emerging technologies (p. 329). Only the future will tell whether the world’s nations will rise to those challenges and create a more level playing field.

Samuel B. Hoff, Ph.D.  
George Washington Distinguished Professor of History and Political Science  
Delaware State University  
Dover, Delaware