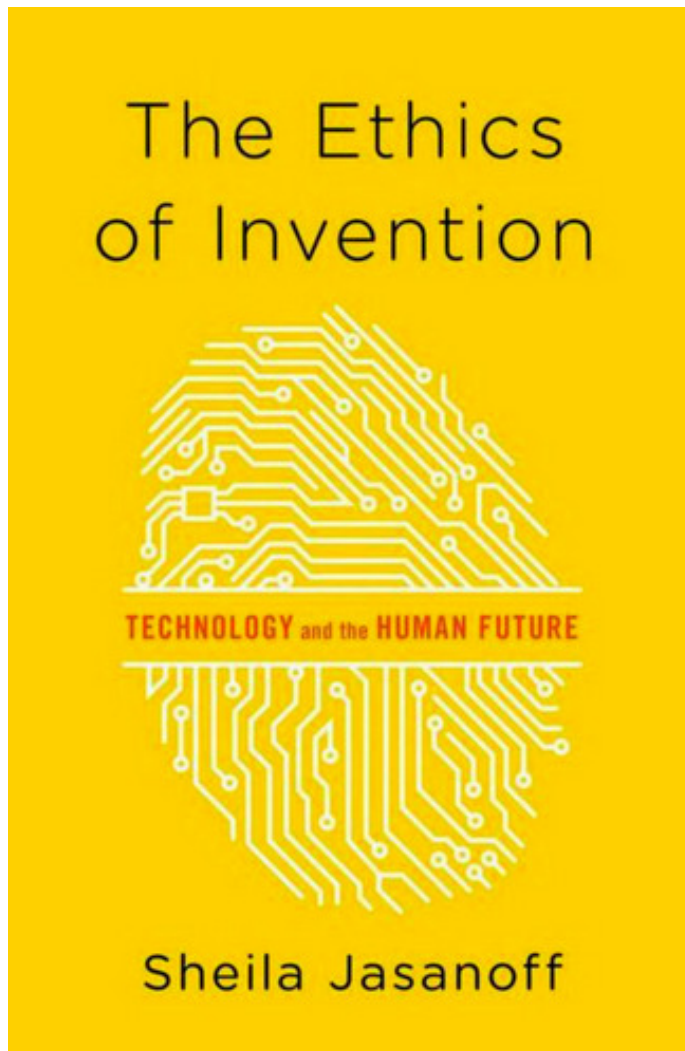


# 'Invention' looks at innovative tech

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*"The Ethics of Invention: Technology and the Human Future"* by Sheila Jasanoff. New York: W.W. Norton & Co., 2016, 288 pages, \$26.95.



"It would be foolish at best and dangerously innocent at worst to deny the advantages of the human-made instruments and infrastructures that make up the environments of modernity," Sheila Jasanoff explains near the beginning of *"The Ethics of Invention: Technology and the Human Future,"* her recently released treatise on the consequences of our increasing reliance on technology as a means of dealing with many of society's oldest challenges. "Yet, whether we treat technology as a passive backdrop for a society that evolves according to unconstrained human choice or attribute to technology superhuman power to shape our destinies, we risk making conceptual errors that threaten our well-being."

"Centuries of invention have not only made human lives more pampered, independent and productive; they have also perpetuated forms of oppression and domination for which classical political and social theory barely has names, let alone principles of good government," she continues. "Unless we understand better how technologies affect basic forms of social interaction, including structures of hierarchy and inequality, words like 'democracy' and

'citizenship' lose their meaning as compass points for a free society."

"The Ethics of Invention" is meticulously researched, with 16 pages of source notes at the conclusion of the nine chapters comprising the main text. At the heart of Jasanoff's thesis is the seemingly irrefutable notion that technological innovation has transformed our world in ways we are only now beginning to understand and appreciate. In one respect, this has been the case with every advance throughout recorded history, whether it occurred in the agricultural realm, the communication sphere or how wars are fought. There has always been a lag between the development of new capabilities and our ability to institute the appropriate control mechanisms needed to safeguard individuals and societies against the potential negative consequences – intended or unintended – that inevitably accompany any departure from the past.

Indeed, most of us embrace technological innovation without any conscious consideration of how the benefits associated with the modernization it represents could also precipitate undesirable outcomes. I am pretty sure those of us who rushed to make the smart phone an indispensable part of our lives did not pause to think about the possible downside of our newfound ubiquitous connectedness. Toward this end, the author goes to some lengths to emphasize the point that the introduction of anything designed to enhance efficiency always precipitates changes in the way human beings relate to one another. When the two-man crosscut saw replaced the ax as the primary tool of the logging industry, for example, it did more than just increase productivity – it changed the entire social structure of those engaged in the profession.

Moreover, and as Jasanoff astutely notes, technological advances invariably create ethical dilemmas. Having the ability to do something does not necessarily mean it should be done. One area where this premise is being contested passionately involves the promise of genetically-modified plants to provide the food an exponentially-increasing world population will need in the coming decades. The author succinctly captures the essence of this often-heated discussion in the following passage from “Remaking Nature,” the fourth chapter: “Why did a technique that seemed so appealing – ingenious, feasible, broadly applicable, of huge potential benefit to the poor and hungry and commercially profitable – kindle an ethical and political firestorm that refuses to die down? To make sense of this puzzle, ‘green biotechnology’ has to be understood in the context of the political economy, indeed the multiple political economies, of global agricultural production at the millennium. The debates around this technological development evolved, we will see, out of the same overlapping histories of invention, market expansion, and global circulation that led to the Bhopal disaster described in the preceding chapter.”

Jasanoff is Pforzheimer Professor of Science and Technology Studies at the John F. Kennedy School of Government at Harvard University, where she also directs the Program on Science, Technology, and Society. Founding chair of the Science and Technology Studies Department at Cornell University, she served on the board of directors of the American Association for the Advancement of Science. The recipient of a 2010 Guggenheim Fellowship, her previous books include “The Fifth Branch: Science Advisors as Policymakers,” “Science at the Bar: Law, Science and Technology in America” and “Designs on Nature: Science and Democracy in Europe and the United States.”

“Technologies, we have seen, are not merely tools for achieving practical ends but devices with which modern societies explore and create potentially more liberating and meaningful designs for future living,” she observes in “Reclaiming the Future,” the eighth chapter and one of my personal favorites. “Through technology, human societies articulate their hopes, dreams and desires while also making material instruments for accomplishing them. Technological choices are, as well, intrinsically political; they order society, distribute benefits and burdens, and channel power.”

Ultimately, Jasanoff is guardedly optimistic we will be able to successfully negotiate the immense challenges that lie ahead with respect to keeping our increasingly technologically-based society from becoming a casualty of its own ingenuity. In order to stay ahead of the curve, however, we are going to have to be decidedly more deliberate (a word she seems particularly fond of) in our approach to the ongoing choices we are prompted to make on a daily basis. The stakes are simply too high for us to keep our heads in the sand much longer.

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