

## *The Shortcomings of Pursuing Optimality*

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Public goods theory plays an important role in intellectual property. The subject matter of intellectual property, expression and inventions, and the ideas excluded from intellectual property are public goods, after all. The primary economic justification for intellectual property is based on the public goods characteristics of intellectual resources, and the social costs associated with intellectual property rights are a function of those same characteristics. Needless to say, intellectual property laws depend on public goods theory.

This essay discusses a technical economic issue at the heart of public goods theory, specifically, Paul Samuelson's optimality condition, and argues that pursuing optimality is a mistake. In his seminal work on public goods, Samuelson suggested that since public goods simultaneously enter into the "indifference curves" or "consumption functions" of many people, optimal production would have to account for the aggregate value for the consuming population; investment in production of a public good should expand so long as the aggregate marginal benefits to consumers exceeds the marginal cost. Samuelson suggested that accurately measuring demand and achieving optimality are difficult because consumers may act strategically and understate their actual preferences on the hopes that others will bear a greater proportion of the costs. To make matters worse, regardless of strategic behavior of this sort, accurately measuring the marginal benefits to each consumer is an incredibly difficult enterprise in the real world, akin to the informational demands that make perfect price discrimination impossible. Samuelson recognized that competitive markets would struggle with measuring demand for public goods, and while he thought the government would solve the demand revelation problem in some contexts through voting and political processes rather than market processes, he recognized that all of these processes are imperfect and optimal production would be elusive. In this essay, I go one step further and argue that optimal production, like perfect price discrimination, is a distracting red herring because we are inevitably in an incredibly complex second-best world where attempts to perfect one market cause unpredictable and often harmful distortions in many other markets and non-markets. Recognizing the shortcomings of pursuing optimality leads to a new understanding of the economic objectives for intellectual property. Rather than focus on achieving optimal government or market selection of public good investments, society is likely (much) better off (i) supporting public capabilities to participate in intellectual-cultural activities, (ii) lowering the costs of public goods production for a wide range of public goods producers (focus on inframarginal producers rather than marginal producers), and (iii) maintaining flexibility in the opportunities available to potential participants. In my view, this would better leverage nonrivalry, facilitate progress along many paths, and sustain a spillover-rich cultural environment in which and with which members of society are capable of interacting productively. The essay explores specific implications for patent and copyright.