

from a quantitative, microeconomic point of view. It examines the emerging economic and business models for electronic publishing and challenges conventional economics in an information-based economy.

The book begins with a presentation of the three pillars of Adam Smith's "invisible hand." Excludability (one must pay to get the goods), rivalry (two cannot partake as cheaply as one), and transparency (what is needed and what is for sale are clear) traditionally define common perceptions about the relationship between government and economics. These long-held principles are immediately challenged by an information economy. In this economy, excluding the use of an online product is neither easy nor cheap. Digital goods do not involve rivalries. Products are anything but transparent, as evidenced by the number of responses to the "shrink-wrapped" dilemma.

The authors describe *shareware*, "try before you buy" software; *public beta*, time-limited versions of products; *dual track*, versions with free lower-power versions; and *open source* code that can help authors gain a marketable reputation (pp. 19–20). The authors also discuss producers' attempts to influence rather than meet preordained needs. Examples include shopbots, bidding services, auction sites, and meta-auction sites.

Advertising pricing models for the Web are discussed in the book. The two current dominant forms are sponsored sites and entry portal sites. The former are well suited for the Web but retain important parallels to the physical world, while the latter function as gateways to the Web and provide search and directory features to Web browsers. Other advertising includes banner advertisements, which are passive and under the producer's control. Target communications are active and under consumers' control but only measure

Internet Publishing and Beyond: The Economics of Digital Information and Intellectual Property. Edited by Brian Kahin and Hal R. Varian. Cambridge, MA, and London, U.K.: MIT Press, 2000. 243 p. \$24.95. ISBN: 0-262-61159-7.

There is a great deal of anecdotal evidence that the Internet and Web are producing viable alternatives to the traditional system of scholarly publishing in which articles appear in print journals. Users expect the instantaneous delivery of articles and hyperlink extensions directly to scholars' desktops. *Internet Publishing and Beyond*, written by economists, provides an overview of the complexity of electronic publishing

exposure. It is proposed that an additional measure of value be based on the degree of interactivity, such as duration of time, number of pages, or repeat visits.

Other issues the authors address range from the unprecedented opportunity for the invasion of privacy to the transferability of models used in "online news" and the result that mass tastes are satisfied more cheaply, while speciality tastes become an expensive luxury.

A topic of particular interest to librarians is the aggregation of services by producers. Aggregation is presented as a new opportunity for packaging content to increase the value of the product and can take many forms: *bundling* across many goods, *site licensing* across different users, and *subscriptions* over time and across locations (p. 114). A related model of aggregation measures the value of the product by

tracking consumers' decisions to view or not view.

Various pricing practices for telecommunications and the Internet affect the relationships among classic production costs, transaction costs, and economic value of intellectual property. In a discussion of fixed-fee versus unit pricing, the authors provide quantitative measures of telephone services experiments in this area that suggest unit pricing may not continue as the dominant mode.

Differential pricing is discussed in light of *pareto efficiency*, which means consumers cannot become better off without making producers worse off. Pragmatic suggestions include designing products that can offer different versions to provide quality adjustment and to control the conditions by which the product is to be accessed.

The final chapter addresses the application of economic and busi-

ness models and concludes "the literature has not yet developed to the point where the models fit actual circumstances very well" (p. 227). It then describes a controlled-pricing field experiment between the University of Michigan and Elsevier referred to as Pricing Electronic Access to Knowledge (PEAK), which is a pragmatic attempt to do just that.

This volume provides a good overview of Web publishing issues and the business and economic models used to analyze ways information can be distributed in an information economy. Charts and formulas are provided to describe and extend the presented models. It is the best collection of quantitative data on the topic to date.

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