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Some Simple Analytics of Vertically Linked Markets. Net Neutrality Blog Post #9

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One of the most contentious aspects of net neutrality is the degree to which Internet Service Providers (ISPs) should be able to vertically integrate with content providers. The concern is that a vertically integrated firm could prioritize delivery of its own content at the expense of its competitors absent net neutrality rules. The questions then arise: when would ISPs would actually face such incentives and how might they affect consumers?

To unpack these questions, Joseph Farrell, Professor of Economics at University of California, Berkeley, in his article, "Some Simple Analytics of Vertically Linked Markets," analyzes the case of a single, vertically integrated firm that sets prices for its initial product and also chooses a set of rules that defines its product's terms of use and fees for follow-on products. The value that consumers derive from follow-on services and goods affects the price that consumers are willing to pay for the initial good. Restated in the context of the Internet, the monthly fee that consumers are willing to pay to ISPs for internet access depends on the value of the network.

Demand for the ISP's primary product (Internet access) depends on demand for services available on the network. Thus, the key question is when does blocking content, charging access fees to providers, or promoting the ISP's content over others' reduce demand for the network (and, presumably, harm consumers)?

As with most difficult questions in economics, the answer is, "it depends." And, in Farrell's model, it depends on the information available to consumers.

In the positive scenario, consumers understand the ISP's practices. In this case, the model predicts that an ISP would find it profitable to engage in practices inconsistent with net neutrality only when such behavior also benefits consumers. That is because consumers will make their subscription decisions based on its total price, and if the consumers fully understand all additional costs (price or otherwise) then the ISP will have to reduce the price of access to compensate. At the same time, charging content providers allows ISPs more ways to cover their costs and reduce the amount they charge consumers. In this scenario, ISP's and consumer's interests are aligned.

In the less optimistic scenario, consumers have a poor understanding of the ISP's practices, either because the ISPs are less transparent or because consumers do not pay attention to terms of use when buying Internet access. In these cases, the interests of the ISPs and its consumers may no longer be aligned. ISPs might take advantage of naïve consumers who underestimate the costs of firm's practices and keep the price for internet access higher than they would otherwise.

This simple analysis suggests that one may infer whether an ISP has favorable terms of use for its subscribers by looking at the firm's terms-of-use and explanations of its business and network behavior. The more transparent the firm is, the more beneficial its behavior is likely to be for consumers.

What are the implications for net neutrality? When consumers are sufficiently informed, vertically integrated ISPs have incentives to increase competition and efficiency in edge markets because it increases the value of their network. Higher network value in turn allows them to charge higher internet access fee. Thus, achieving the goals of net neutrality may not require net neutrality rules, *per se*, but policy initiatives that improve consumer awareness.