

**Technological Disequilibrium:  
Measuring Technological Change in Local Area Networks Equipment**

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### *Abstract*

Technological change can affect existing products very rapidly and at an uneven pace depending on the type and on the age of an industry. In young and fast growing industries, the process of technological change usually entails a series of improvements in existing products that affect their technological characteristics. Depending on the type and timing of innovation, prices may reflect or not the technological change to their characteristics. This paper is an attempt to address the issue of the relationships between technological improvements in characteristics and the extent of creation of economic benefits following from these improvements in the specific case of hub equipment for Local Area Networks (LANs). It pursues this aim by using a constant-quality price index constructed from hedonic price regressions. This paper argues that it may be that economic benefits from technological improvements entailing an extension in the characteristics of hub equipment may not be captured by an overall constant-quality price index. Although the issue of identification of a better methodology to assess the extent of economic benefits is not explicitly addressed in this paper, some related questions are addressed, for instance: What is the extent of the economic benefits from technological improvement that can be captured with the use of a constant-quality price indexes? Have these economic benefits from technological improvements been equally distributed across each characteristic? Has the rate of growth of economic benefits occurred evenly over time?

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