Sources of Market Power in Web Search: Evidence from a Field Experiment

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Abstract

We evaluate the economic forces that contribute to Google's large market share in web search. We develop a model of search demand in which consumer choices are influenced by switching costs, quality beliefs, and inattention, and estimate it using data from a field experiment with US desktop internet users. We find that (i) requiring Google users to make an active choice among search engines does not change market shares, implying that switching costs play a limited role; (ii) Google users who are paid to try Bing for two weeks update positively about its relative quality, with a significant share preferring to continue using it; (iii) switching defaults increases Bing market share by more than correcting quality beliefs, consistent with persistent inattention. Correcting beliefs and removing choice frictions would increase Bing's market share by 18.2 percentage points and increase consumer surplus by $11.9 per consumer-year. Policies that affect defaults are more effective than those requiring active choice. In the final part of the paper, we use Microsoft search logs to assess the impact of additional data on search result relevance. The results suggest that sharing Google's click-and-query data with Microsoft may have a limited effect on market shares.

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