Defining the Relevant Product Market for Google-DoubleClick Merger

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Industry Background

- In 2007, U.S. advertisers were expected for the first time to spend more on online advertising than on radio advertising
  - Source: eMarketer
- U.S. online advertising revenues in 2007 were roughly $17 billion, an increase of 35 percent over 2005 revenues
  - Source: Interactive Advertising Bureau

The Inputs to an Online Ad

Suppliers of online advertising provide three primary inputs: (1) ad tools, (2) intermediation, and (3) publisher tools

Ad tools: software packages that allow advertisers to manage inventory and produce ads

Intermediation: matching advertisers (buyers) to publishers (sellers) in an advertising marketplace

- publishers' direct sales forces
- "ad networks" (resell publisher ad space)
- "ad exchanges" (match advertisers and publishers)

Research Agenda

- Our analysis focuses on whether different channels of online advertising represent a single product market
- Limitation: We do not analyze whether other forms of advertising (e.g., print) should also be included
  - Reid, King, Martin and Soh (2005) (finding that local advertisers perceive Internet advertising to be a poor substitute for traditional media)

Segments of the Online Advertising Industry and the Major Providers

Online Advertising		
Search-Based	Publisher-Based	
	Contextual	Graphic
•Google.com •Yahoo.com •MSN.com •AOL.com •Ask.com	•Google AdSense •Yahoo Publisher Network •Quigo	•DoubleClick •ValueClick •aQuantive •24/7 Real Media

Contextual and Graphic Ad Input Providers

<table>
<tr><th></th><th>Contextual</th><th></th><th>Graphic</th></tr>
<tr><td>Advertiser Tools</td><td rowspan="3">• Google Adsense

• Yahoo Publisher Network</td><td></td><td>• DoubleClick
• aQuantive
• ValueClick</td></tr>
<tr><td>Intermediation</td><td></td><td>• Direct Sales
• ValueClick
• aQuantive
• 24/7 Real Media</td></tr>
<tr><td>Publisher Tools</td><td></td><td>• DoubleClick
• 24/7 Real Media</td></tr>
</table>

The Search Segment

- Google collects between 70 and 76 percent of search ad revenue
  - Source: Alan Rimm-Kaufman, eMarketer
- The top ten paid search advertisers, generating 16 percent of all sponsored links, were all retail or comparison shopping sites
  - Source: comScore

The Publisher-Based Segment

- Line between text-**based and graphic ads** is blurring
  - Google's AdSense, which scans a page's content and selects an appropriate ad, can now deliver "text or image ads."
- **60 percent of the $2 billion a year** contextual segment was claimed by Google's AdSense
  - Source: eMarketer
- **Graphic ads use electronic tags or** "cookies" to track which sites an Internet user visits (behavioral rather than contextual)

Legal Precedent on Market Definition

- *KinderStart.com LLC v. Google, Inc*
- Plaintiff alleged search result ranking abuses
  - Argued that search advertising was a relevant product market
- Court rejected this definition as being too narrow
  - "Because a website may choose to advertise via search-based advertising or by posting advertisements independently of any search, search-based advertising is reasonably interchangeable with other forms of Internet advertising."

Survey Data

- **According to Merger Guidelines,** product markets are defined based on “evidence that buyers [1] have shifted or [2] have considered shifting purchases between products in response to relative changes in price or other competitive variables.”
- **In the absence of evidence on [1]**, a survey can inform [2]

Survey Background

- **Firm: Shaw and Company**
- **Respondents: 200 retail** advertisement managers who had purchased publisher-based advertising within the last year
- **Respondents answered as many as** 21 questions related to their usage of online advertising, their substitution preferences, and their firm characteristics

Representative Respondent

- Spent $2.4 million on online advertising in the last twelve months
- Been in business for roughly 6.5 years
- Had about 550 employees
- “Financial services or insurance” was the most common industry, followed by “Clothing apparel or shoes,” and “Computer services, hardware, software”

Do Advertisers View Graphic Ads as Substitutes for Contextual Ads?

Q6. Suppose the price of graphic ads placed on all publishers' websites increased by 10 percent. How would your purchases of **text-based ads** placed on publishers' websites change?

- Not at all.
- Increase by 5 percent or less.
- Increase between 5 and 10 percent.
- Increase by 10 percent or more.
- Decrease by 5 percent or less.
- Decrease between 5 and 10 percent.
- Decrease by 10 percent or more.
- Don't Know / Refused / NA.

Do Advertisers View Graphic Ads as Substitutes for Contextual Ads?

	Amount	*Percent*
	Not At All	12%
Increase	< 5%	12%
	5-10%	31%
	> 10%	25%
Subtotal		68%
Decrease	< 5%	5%
	5-10%	6%
	> 10%	2%
Subtotal		13%
Don’t Know/Refused/NA		9%

How Would Current DoubleClick Customers React to a Price Increase?

Q10. [ASK ONLY THOSE WHO USED DOUBLECLICK SERVICE IN LAST YEAR] Now suppose that the price of DoubleClick's graphic ads services – including ad management or exchange software – increases by 10 percent. Would you:

- Purchase the same amount of graphic ads through DoubleClick.
- Purchase the same amount of graphic ads through another firm (such as ValueClick, aQuantive, or 24/7 Real Media).
- Purchase fewer graphic ads through DoubleClick and increase the amount of text-based ads you purchase on the publisher's website.
- Purchase fewer graphic ads through DoubleClick and increase the amount of search-based ads you purchase.
- Keep everything the same.
- Don't Know / Refused / NA.

How Would Current DoubleClick Customers React to a Price Increase?

	Percent
Purchase Same Amount of Graphics Ads Through DoubleClick	30%
Purchase Same Amount of Graphics Ads Through Rival Firm	41%
Purchase Fewer DoubleClick Graphic Ads and More Contextual Ads	19%
Purchase Fewer DoubleClick Graphic Ads and More Search-Based Ads	9%
Don't Know/Refused/NA	1%

Conclusions

- Advertiser tools/intermediation services used in one channel likely belong in the same product market as advertiser tools/intermediation used in another channel
- Google could drive some marginal DoubleClick customers to contextual ads (dominated by Google)
- Evans & Noel (2007): Given network effects in online advertising, and given the higher absolute margins of Google’s Adsense relative to DoubleClick’s service, amount of switching between channels need not be significant

Dhar's Critique of Our Survey

- **Claim 1: A small increase in** DoubleClick's ad service fees could not induce the level of substitution by online advertisers evidenced by the survey.
- **Claim 2: Finds faults with the** survey design, including the lack of open-ended questions and sample size.

Dhar's Critique of Our Survey

- **Demand response among online** advertisers that currently use DoubleClick services (19%) is proof that the survey results are "obviously implausible."
  - Cites blog claiming that the cost of display ad serving is 2 percent of the total cost of display ads
  - Thus, any increase in the price of DoubleClick's input would hardly be felt by advertiser
  - This line of argument was embraced by the FTC in its statement approving the deal

Dhar's Critique of Our Survey

Ad serving costs ($0.125 CPM) could be small in proportion to total ad costs for banner ad on a very popular website

- CPM of a display ad on NYTimes.com can range between $28 and $50.
- Implies ad serving costs < 1% of total cost of the display ad

However, Dhar's two-percent estimate does not appear to be true for the vast majority of display ads

- JPMorgan: 83 percent of all U.S. display ads sold for less than a $1 CPM in 2007
- Implies ad serving costs > 12.5 percent for the vast majority of display ads

Dhar's Critique of Our Survey

Argues that survey respondents must have confused an increase in the price of DoubleClick's input with an increase in the final price of the display ad.

Seems unlikely in light of the fact that 68 percent of survey respondents said that they would consider shifting some portion of their purchases of display ads to contextual ads in response to a ten percent increase in the *final price* of the display ad.

Thus, the 19 percent response rate associated with an increase in the price of the DoubleClick-provided input is not inconsistent with other answers in the survey.

Dhar's Critique of Our Survey

- **Pre-screening questions also prevent** confusion
  - 1) work for a company that purchases Internet advertising;
  - (2) purchase or have knowledge about these advertising purchases; and
  - (3) that the respondent's company purchased Internet advertising that ran on a publisher's website (such as NYTIMES.COM or ESPN.COM)

FTC's Statement

- **"Directly purchased display ads" are** distinct from contextual ads
  - Contextual ads are used for "direct response advertising," while directly purchased display ads are used for "brand advertising."
- But conclude that the prices of contextual ads are constrained by display ads sold by ad intermediaries

All ads sold by intermediaries (contextual, display) Google	Directly purchased ads (display) DoubleClick

"Brand advertising"

Do advertisers perceive these two ads to be substitutes?

Survey says . . . Yes.

"Direct response ad"