

## Rejoinder

# Implications of “Online Display Advertising: Targeting and Obtrusiveness”

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The commentaries on our work suggest several broader implications of our findings as well as a concern that we understate the size of the effect. In this rejoinder, we discuss our views on the regulatory implications, the implications for firm strategies, and the implications for our understanding of the underlying behavioral processes. We also acknowledge that our original calculation of \$464 million in cost savings for industry is conservative. We conclude with a call for “privacy engineering” research that combines computer science tools with an understanding of consumer behavior and economics to improve marketing and economic outcomes while safeguarding consumer privacy.

*Key words:* e-commerce; privacy; advertising; targeting

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## Introduction

We thank Andrea M. Matwyshyn, Leonard Lodish, and Americus Reed II for their thoughtful comments on our article. In their commentaries, both Matwyshyn (2011) and Lodish and Reed (2011) emphasize several broader implications of our findings as well as some limitations in extrapolating from our results to other settings. Lodish and Reed also note that our calculation of the economic impact is rather conservative and, more generally, ask us to communicate our results to the wider practitioner community and to emphasize the large \$464 million size of our estimate of wasted spending.

## Response to Matwyshyn: Why Does Privacy Matter to Firms?

Goldfarb and Tucker (2011a) document that privacy-seeking consumers respond negatively to advertising that attempts to be both visually intrusive in terms of how distracting its ad design is and behaviorally intrusive by being targeted toward the type of content that the consumer is seeking online. Matwyshyn (2011) emphasizes that privacy matters to firms in a broader sense than we document in our paper. She argues that it is important that as scholars we go “beyond demographics” and develop a better way of measuring consumer concerns about privacy. We

agree that, given the role that privacy concerns appear to play in advertising effectiveness, we do need to develop better tools for capturing and measuring these concerns.

She also notes that the government, both in the United States and elsewhere, is playing an increasing role in trying to protect users’ privacy online. We agree with Matwyshyn that there is a growing debate around the meaning of contractual consent and that current U.S. regulations do set some limits on data use. Furthermore, recent Federal Trade Commission (FTC) reports (e.g., FTC 2010) suggest that more stringent regulations defining consent are likely in the future. It is important for marketers to understand that just because a particular marketing activity is vaguely mentioned in a privacy policy does not necessarily mean that its use is legal.

Furthermore, Matwyshyn argues that even legal behavior may be perceived as unacceptable to consumers. We view this as one of the main implications of our paper. Contextually targeted but obtrusive ads are legal. Contextual targeting simply means targeting based on the content of the Web page. However, we found that consumers react negatively to contextual targeting when the advertisements are obtrusive. We provide evidence that this appears to be related to privacy concerns. In this way, privacy concerns are of central importance to firms.

It is important to note that recent research has shown that firms can manage consumer privacy expectations by giving consumers some control of how data are used. Tucker (2010) uses field test data to examine click-through rates at a social networking website before and after it addressed privacy concerns by giving users more control over personally identifiable information. She finds that after the site offered better privacy protection, click-through rates for the most personalized advertising improved considerably.

A final point argued by Matwyshyn is that consumer perception of privacy matters to firms because it might lead to increased regulatory scrutiny. The current regulatory environment in the United States is more open than Canada or Europe with respect to the use of consumer data. However, the FTC receives numerous complaints from consumers about the data practices of firms (FTC 2010). To the extent that these complaints are driven by legal, but perhaps inappropriate, practices by firms, these practices might lead to a stricter regulatory regime. In other work (Goldfarb and Tucker 2011b), we show that stricter privacy regulations in Europe hurt online advertising there substantially. To the extent that marketers want to keep the U.S. regulatory environment relatively unrestricted, it is important to establish industry practices that do not violate consumers' sense of privacy, even if those practices are legal.

## Response to Lodish and Reed

### What Are the Underlying Psychological Processes?

Lodish and Reed (2011) emphasize that we still do not fully understand the underlying psychological drivers of our results. They call for future research on these effects, and we are, of course, eager to see such research come to fruition.<sup>1</sup>

Specifically, although we agree that it is too soon to argue definitively that our results are driven by reactance and a perceived sense of manipulation, we disagree with their interpretation of our recall results. In column (4) of Table 4 of Goldfarb and Tucker (2011a), the coefficient on the interaction between "Context ad" and "High-Visibility Ad" is negative but not significantly different from zero. We interpret this to suggest that there is no substantial negative interaction when recall is the dependent variable. Essentially, our difference of opinion hinges on how to

interpret this negative but insignificant result. Contextually targeted ads have generally lower recall (perhaps because they are more likely to be seen as part of the overall experience at the website), so we believe that the negative but insignificant result suggests that the main driver of our result on purchase intention is something other than just noticing the ad. That said, Lodish and Reed's call for more research—in particular, into how the effects we document vary by context and goal—is clearly warranted, and it is only through future research, perhaps with the control enabled by laboratory studies, that we can really understand the underlying mechanisms.

### Our Calculations Are Conservative

We were deliberately conservative in our estimate of the potential wasted advertising spending as a consequence of the result that contextually targeted and obtrusive ads do not work. In trying to be conservative in our estimates, we may have lost some transparency in the calculations. We were conservative for two reasons: (1) it seems prudent to err on the side of caution as much as possible, and (2) the number generated even with this conservative estimate is quite large.

However, we agree with the critique that we did not highlight the calculations of potential cost savings enough in our paper. Specifically, we did not include them in the abstract or early enough in the paper to grab the attention of managers and casual readers, and we have tried partially to correct this by including the \$464 million number in the abstract and introduction of our rejoinder.

## Summing Up

We thank Matwyshyn, Lodish, and Reed for their encouraging comments on our paper. The number of open questions that their commentaries raise emphasize the need for research on "privacy engineering" that marries the behavioral issues explored in our paper with regulatory feasibility and computer science. Marketing scholarship emphasizes a combined understanding of economics, psychology, and operational considerations, so marketing scholars are uniquely situated to help firms design ways of managing their customer data that optimize operations while safeguarding privacy.

### Acknowledgments

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<sup>1</sup> One small clarification: Lodish and Reed write that we have 13,000 respondents in our sample. We use data from 2,464,812 respondents in our main specifications. However, we do have just over 10,000 website campaign combinations, which may account for the confusion.

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