

# MARKETING COLLOQUIA

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## Hema Yoganarasimhan

*Associate Professor, Foster Faculty Fellow*

University of Washington, Michael G. Foster School of Business

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*Where: 741 JMHH*

*When: 12:00 PM to 1:20 PM*

### TARGETING AND PRIVACY IN MOBILE ADVERTISING

*ABSTRACT:* Mobile in-app advertising is growing in popularity. While these ads have excellent user-tracking properties through mobile device IDs, they have raised concerns among privacy advocates. There is an ongoing debate on the value of different types of mobile targeting, the incentives of ad-networks to engage in behavioral targeting and share user data with advertisers, and the role of regulation. To answer these questions, we propose a modeling framework that consists of two components – a machine learning framework for predicting click-through rate and a stylized analytical framework for conducting data-sharing counterfactuals. Using data from the leading in-app ad-network of an Asian country, we show that our machine learning model improves targeting ability by 17.95% over no targeting. These gains mainly stem from behavioral information and the value of contextual information is relatively small. Stricter regulations on user-tracking substantially shrink the value of behavioral targeting. Counterfactuals show that the total advertisers' surplus grows with more granular information-sharing between the ad-network and advertisers. However, there is heterogeneity among advertisers in their preferred level of data-sharing. Importantly, the ad-network's revenues are non-monotonic, i.e., it prefers to not share behavioral information with advertisers. Thus, the ad-network may have natural incentives to preserve users' privacy without external regulation.