When does retargeting work? Information specificity in online advertising

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**Major Contributions**

* Theoretical Contributions
  + Study personalized recommendation on an external website
  + Focus on ad content personalized on individual browsing history rather than segments
  + Examine the tailoring of ad content
  + Analyze ads’ effectiveness and browsing behavior
* Methodology Contributions
  + Empirically identify an indicator of whether a consumer has yet developed narrowly construed preferences
  + Bridging behavioral studies with large-scale secondary data
* Managerial Contributions
  + Advertising Networks (Facebook): retargeting is increasingly popular
  + Managers for focal firms

**Retargeting**

* This research paper was comparing two retargeting ads, dynamic retargeting and generic retargeting.
  + Dynamic retargeting: to reach out customers with feature pictures of the exact product consumers previously browsed.
  + Generic retargeting: to reach out customers who previously browsed the firm’s website with pictures of generic products of the firm
* It has once been found that personalized retargeted ads (retargeting customers with personalized advertisements) could be six times more effective than standard bands. Nevertheless, when displayed on an external website instead of internally on the firm’s own website, there is little previous research or empirical results show that dynamic targeting is more effective than generic retargeting. Or would there be greater chance of customers returning to the firm’s website after they see dynamic retargeted ads?
* Researchers empirically explore the questions with data from an experiment by a travel company. The experiment used ads to retarget the consumers who had viewed hotel options on the travel company’s website. The retargeted ads were shown subsequently when customers browsed other websites.
  + Dynamic retargeting: contained an image of the specific hotel consumer previously browsed + 3 similar hotels;
  + Generic retargeting: a random generic brand ad for the travel firm
* In this survey, it was found out that on average dynamic retargeting is not effective. Only for consumers who had “narrowly construed preferences” (consumers who had a specific and detailed viewpoint of the product they wanted to purchase), dynamic retargeted ads were responded.
* In summary, generic ads are more effective for customers who have not sought product information (eg, not searching for product review sites), while dynamic retargeting is more effective to customers who had reviewed the product (or had thought deeply about the product).

**Empirical settings and data**

This paper used data from a travel website which sells hotel stays and hotel vacation packages. Consumers were randomly exposed to a generic or dynamic retargeted ad when he or she subsequently visited external websites after the travel website.

Generic retargeting ad: an image that included a beach vacation alongside its brand logo

Dynamic retargeting ad: hotel (previously browsed) + 3 others similar in location and star rating

Length: 21 days

On any one day, consumers would see either only generic or dynamic ad.

**Model Construction (Skip Details for Econometric Models)**

* Proportional hazard model because a consumer’s underlying probability to purchase may change over time
* hi(t, Xt) = h0(t)x exp(Xit β)
  + i: customer i
  + h(t): hazard rate for customer at time t
* exp(Xit β) = exp (β1 DynamicRetargetedAdit + β2 AnyRetargetedAdit + β3 OtherBehaviouralAdit + β4 ContextualAdit + β5 CumRetargetedAdsit + β6 CumRetargetedAdsit + β7 CumOtherBehaviorAdsit + β8 CumContextualAdsit)

**Incorporating CLT into Model by adding ReviewSiteVisit**

* endogeneity concerns and robustness check
  + sample selection: consumer characteristics which may be correlated with the decision to visit a review site might likewise be correlated with a partiality for dynamic retargeted ads.
  + differences in intensity of exposure
  + a review site visit might in itself directly provide new information altering consumers' choices
* moderating role of involvement by adding BrowsingTravelthatDay

**Results from Secondary Data Analysis**

* On average generic retargeting is more effective than consumer-specific dynamic retargeting.
* Dynamic retargeted ads perform well only when preferences are narrowly construed.

**Lab Experiment**

* Objective
  + Confirm that the interpretation of our results hold in a controlled lab environment
  + Rule out alternative explanations including privacy concerns, reactance, competitive effects and consumer experience
* 2-by-2 Design
  + Broadly versus narrowly construed preferences
  + Generic ads versus dynamic ads
* DV: how likely they are at this stage of their travel planning to have already visited a

travel review site

* Participants: 162 recruited on Mechanical Turk
* Results: interaction between construe level and ad types after controlling for covariates

**Strength**

* Innovative studies on retargeting advertising with high practical relevance
* Super Clear Literature Review to demonstrate theoretical contributions
* Clear structure to show findings, mechanisms and implications
* Combine lab experiments to rule out alternative explanations
* Explanations for empirical observations have consumer behavioral basis

**Weakness**

* The lab study used different group on different environment to make decisions.
* Findings from field experiment data and lab data may be lack of internal validity and hard to compare with each other.
* Generalizability to products where there is little consumer product research and purchasing behavior is driven by either impulse or habit may be limited.
* Not explicitly address the question of the specifics of dynamic retargeting ad design and in particular which products should be highlighted and how.
* No data on competitors' advertising decisions which would allow us to tease apart how the effectiveness of dynamic retargeting is moderated by competitive ads.

**Take-Home Messages**

* In general, dynamic retargeting is ineffective.
* The most effective time to use dynamic retargeting rather than generic retargeting is after a consumer visits a review site and appears to be actively involved in the category.