

## **Integrate Skill Sets with Data Mining Techniques**

*By Jim Wheaton  
Principal, Wheaton Group*

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Sophisticated target marketing is a process that requires significant human input coupled with the intelligent integration of multiple data mining techniques. The human input is most effective when individuals with disparate skill sets work as a team to develop innovative targeting strategies.

Generally, such a team consists of direct marketers, creative professionals, and data miners. The data miners are quantitatively oriented professionals who must be well versed in a wide array of quantitative techniques such as predictive models, clusters, demographic profiles, and focus group and survey research. They must also understand how to combine these techniques into a robust foundation for sophisticated targeting.

Few catalogers – or, for that matter, direct marketers in general – have successfully blended multiple skill sets and data mining techniques into a well-considered program of targeting. This article provides a blueprint for doing so.

### **Predictive Models**

A statistics-based predictive model is a mathematical equation that rank-orders individuals in terms of most to least attractive future predicted behavior. Generally, this rank ordering is divided into equal sized groups of similarly performing individuals (e.g. “deciles”).

A predictive model generates heterogeneous rather than homogeneous segments; that is, segments containing individuals with no guaranteed characteristics in common beyond their future predicted behavior. For example, customers within a given segment might be a combination of the young and old, as well as males and females. Also, they might display many different patterns of historical merchandise purchase behavior.

With a predictive model, all database fields with the potential to isolate the “goods” from the “bads” are systematically evaluated. The model itself can be easily implemented into a production environment. All customers above a predetermined predicted performance are promoted, and the balance are not. Therefore, models are an advanced way to help determine whom to promote.

Sophisticated targeting, however, also requires insight into what to promote. This is where the additional techniques of clusters, demographic profiles, and focus group and survey research come into play.

## Clusters

Unlike predictive models, clusters provide segment homogeneity. By definition, segment homogeneity exists whenever a group of individuals has at least one thing in common. Examples are life-stage, merchandise category needs, or permutations of both.

Segment homogeneity is a prerequisite for one-to-few marketing. One-to-few marketing – unlike its much-hyped cousin, one-to-one marketing – is almost always cost-effective.

## An Example of Clustering

Consider a form of clustering called “product affinity analysis,” in which groups of customers are defined by their merchandise purchase patterns within and across orders. Assume that six product affinity clusters are created, and that a given customer has purchased just once – a single item within Cluster #1:

Ad hoc efforts can be made to sell other items within Cluster #1, as follows:

- Web recommendation agents, at the time of purchase, when the medium of purchase is the e-commerce site.
- E-mail micro-targeting, subsequent to the purchase.
- Ink-jet messaging, subsequent to the purchase, with a catalog cover “call out” involving one or more of the Cluster #1 pages.
- Interactive call center efforts, either at the time of the purchase or during subsequent contacts.
- Layout fine-tuning, subsequent to the purchase, for both print media and the e-commerce site. This allows the positioning of merchandise to be adjusted to reflect typical purchase patterns.

Formal specialized predictive models can be implemented, as follows:

- “Affinity group” models, to rank-order Cluster #1 buyers in terms of their future predicted purchase volumes across Cluster #1 merchandise.
- “Cross sell” models, to rank-order non-Cluster #1 buyers based on their likelihood of eventually purchasing Cluster #1 merchandise. This is most often done with high-value clusters, to drive “prospecting” efforts within the customer base.

Affinity group and cross sell models can drive focused initiatives such as merchandise-specific special offers, including email. They can also spearhead selective binding involving supplemental signatures of Cluster #1 merchandise.

## Focus Group and Survey Research

Unlike predictive models, focus group and survey research provide attitudinal insight. Unfortunately, many – and perhaps most – catalogers do not systematically employ such research.

## Case Study

A specialty cataloger replaced RFM Cells with a statistics-based predictive model. As a result, wasteful circulation was eliminated, and the significant promotional savings were reinvested in sophisticated targeting programs as follows:

On average, males were one-half as responsive as females. Using clustering techniques, a subset of very responsive males was identified: those who had purchased female-oriented jewelry.

Unfortunately, by analyzing the database itself, there was no way to determine who in the household was driving the actual activity. It could, for example, have been daughters using their father's credit cards. Or, perhaps men purchasing gifts for the significant women in their lives.

Subsequently, this customer subset of responsive males was overlaid with demographic information such as age, income, marital status, and presence of children. The results indicated that these jewelry-buying households were families with children, living in single-family suburban homes, with professional, technical and managerial occupations.

Knowing that the target audience was married suburbanites rather than single city-dwellers was helpful in tailoring the catalog copy and layout. Nevertheless, it provided no insight into the individual within the household who was driving the jewelry purchases. To gain a definitive answer, focus group and survey research was commissioned.

The research indicated that the majority of these individuals were gift-giving husbands. They were what the research company dubbed "unimaginative male gift givers." These were men who – despite their solid professional success – dreaded purchasing birthday, anniversary and holiday gifts for their spouses. They were at a loss for what kinds of presents their wives might find appealing.

In order to fully leverage these findings, a task force was convened. Comprised of representatives from marketing, creative, and analytics, the task force's mandate was to develop a loyalty program to appeal to these "unimaginative male gift givers."

On the prospecting side, the cataloger's circulation department began working with its list broker to identify male-oriented lists for which to target prospect offers. These offers included a description of the loyalty program as well as a form for signing up.

Over time, the cataloger was able to extend aggressively into a new and very different target market. Ultimately, its top and bottom lines were enhanced significantly because of the combination of multiple skill sets and data mining techniques.

*Jim Wheaton is a Principal at Wheaton Group, and can be reached at 919-969-8859 or [jim.wheaton@wheatongroup.com](mailto:jim.wheaton@wheatongroup.com). The firm specializes in direct marketing consulting and data mining, data quality assessment and assurance, and the delivery of cost-effective data warehouses and marts. Jim is also a Co-Founder of Data University [www.datauniversity.org](http://www.datauniversity.org).*