Spinning Straw Into Gold

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ABSTRACT

Direct marketing is extremely concerned with data and information and information gathering. How do we as direct marketers use all this information? Using a story from The Brothers Grimm, John Miglautsch draws a comparison that illuminates the situation, and how to overcome the inherent problems.
We Know Who You Are

It is possible to turn data into money. I’ve seen millions of extra dollars generated on one mailing because of modeling. I’ve seen catalog response rates of over 100% because of modeling. It can happen, but it generally does not happen. People think it is a systems problem and it is NOT a systems problem. It is a thinking problem, it is a brain problem.

To illustrate some direct marketing principles consider the legendary story of Rumpelstiltskin, by The Brothers Grimm. A miller (who would have lots of straw and know a considerable amount about it) has a daughter; he says she can spin straw into gold. A very desirable skill indeed. The king is exceptionally greedy. He sends for the daughter and says, “Here is a room filled with straw. Spin it into straw or you die in the morning.”

Like the miller, the database marketing industry promotes two fundamental lies. My contention is that by exposing the lies, we can also achieve the true potential to spin straw into gold. The first lie is, “We know who you are.” The database marketing experts claim they can find out what kind of car you drive, your income, mortgage, number and ages of your children, checking account balance, credit and medical history, etc.

Most individual variables available come from publicly compiled files. When testing such lists in the mail, those kinds of files rarely hold a candle to the response generated by lists of people (though we may not know much about them) who actually bought merchandise related to what we are selling.

Response files, filled with people who bought something from a catalog or website, include little more than approximately when, how much spent and perhaps an indication of the type of product. On the largest files there might also be a selection for male/female. In general, response files do not allow selection on many variables, whether or not the list owner has them appended. A wide variety might cut into list revenue (since you might rent fewer names). These are the bulk of the lists used by catalog companies. This means the hardcore practitioners do not really believe the first lie, they know that whether and what you buy is more important than who you are (If you want to spin straw into gold).

After 20 years, it is rare to see almost any real target marketing. For the most part, we prepare general messages and broadcast them to as many people as remotely feasible. Helping one of the largest computer companies start a catalog, I outlined test and rollout strategies. You test broadly and grow steadily, continually improving your targeting. They asked, “How many business are there and how much does a catalog cost?”

“You could reach every business for about $10 million, give or take a few million?”

“Then, why not just mail everyone and sort things out later?” And that is really what we’d all like to do.

Back to the story. We have our lies. We also have straw. The king supplied rooms full of it. Each time the room got bigger. Researching this article, I called my local feed mill. “The first thing you must know about straw” they told me, “is that straw is NOT hay. Hay goes into an animal, nourishes it, and feeds it. Straw is what goes under the animal and catches what comes out of the animal.” Straw is an almost worthless byproduct of wheat
after you cut the grain off the top.

Similarly, your data is a byproduct of the surfing, registering or order taking process. It was not created by or for marketing and it was certainly not created for modeling. The order processing system was not built to your specification and your IT department would rather you not try to “fix” it.

We built a marketing database for an e-commerce company. They sent us 43 tables, millions of records, four different computer systems, no common link. In normal order entry, down in the bowels of your company IT controls the way it works, no one really cares what it looks like as long as it works. It can be efficient and ugly. Things change very slowly to insure that orders actually get shipped with the correct products in a timely fashion.

On the Internet the President logs on and actually tries to place an order. He realizes that it doesn’t work the way he expected. He comes in the next morning and says, “I don’t like the way that works, fix it!” The IT people look at each other and think, it wasn’t set up for that, no one asked for that when we built it. So they get another server and put it next to the one that is really doing the work. They build a few more screens and loop you through those so the President is happy.

To keep things straight, they hand your computer a cookie. Its about what it sounds like, something really sweet and no good for you. It identifies your computer to their system as you move from place to place. The two computers don’t really need to talk to each other as long as they both know who you are. They can each gather data from you and the data can be combined on the back end, as long as someone remembers to save the cookie (which didn’t happen in this case). I see very little hope that this will improve data quality in the near future.

Everyone thinks his data is so valuable but most of your precious data is worthless. It is no doubt filled with dates that are illegal, orders for -$150, product numbers that no longer exist, customers who bought far more or less than their records indicate. Data we receive is full of stuff that comes out of an animal... your data! It takes enormous work just to make something rational out of most data, to say nothing out of spinning it into gold.

In order to make any sense of data, things have to be done to it. Straw has a nice golden color, that might be the basis of the Grimms’ story. But it really is nothing like gold, it is flammable, brittle and light weight. Presumably, if you were really going to make gold from it, you would have to concentrate the color. That is also what you have to do with data.

Data is NOT information. It is little numbers and letters. Data requires additional data to become information. Data also requires summarization to begin to become information. Summarization is what creates variables. Variables are what drive modeling. The single greatest reason why people are not turning data into money is that they are not building enough variables. They are keeping data as data which is straw which is worthless.

A variable is a simple abstraction. We built a system to answer the question, “What store do our customers shop in?” The final outcome was a set of store numbers in each customer’s record indicating which store and a rolling average of how much they spent. When we wanted to mail people who shopped at that
store, we simply selected all the customers with the appropriate numbers. Creating this was difficult, but it all boiled down to a simple number. This is a variable.

The next level of variable might be the kind of store in which they shopped. We might need store information like square footage, monthly sales of the store, product categories and metro trading area statistics. These might be available from the raw data, but several would have to come from additional sources.

We have spent enough time on the problems of the first lie, “We know who you are.” We obviously do not. And for the most part, as an industry, we have not even bothered to calculate the most rudimentary variables. Catalog Age magazine reported that only 35% of US catalog companies calculate Recency, Frequency and Monetary (RFM) values for their customers¹.

You should not be surprised that your database has not made money. The most basic reason is that your data is almost worthless. To spin straw into gold, you must first concentrate that golden color by summarization, scoring and adding outside data. You will not know everything about your customers and prospects, but you will have begun the process of turning your data into something usable.

¹Catalog Age, April 2000, Pg. 53.
We know what you'll buy

“My daughter can spin straw into gold,” says the miller to the King. In like manner, the database marketing industry proclaims, “We can turn data into money because we know all about you.” However, we’ve already concluded that the first reason more straw doesn’t spin into gold is that we believe data is intrinsically valuable so we don’t build variables to make sense of it.

The second lie of the database marketer is, “We know what you’ll buy.” Target marketing promises that we can contact someone, knowing what, when and how he will buy. This lie is even easier to dismiss.

Think about the last time you entered a major retail store. You had in mind a specific item. What are the chances that you came out with exactly what you intended and nothing more? Most people answer about 1:100. Now if I, having almost limitless data about myself, cannot with much certainty predict my own behavior, what are the chances I can predict yours! Think hard about that trip to the store the next time you listen to a slick presentation on the virtues of client/server, relational, massively parallel, star-clustered, neural-net, genetic, evolutionary, algorithmic modeling.

Trade magazines are full of articles about the latest software tool, the fastest system or the most elaborate statistical technique. Almost no one talks about building variables. Without them you have absolutely no fuel in your software engine. In the coming years, as these analysis techniques are increasingly used by regular marketing people I strongly believe that the emphasis will shift away from statistical technique and move toward how we actually build usable variables in our data. In the words of the smartest direct mailer I have worked with, John Wirth, Ph.D., “If there are lumps in the soup, any technique will find them.”

IT uses “variable” in a technical sense. They typically mean any column in a database. The more philosophical use here is something not inherent in the raw data, something appended or calculated, an additional level of abstraction or summarization. Unfortunately, there are an infinite number of variables for any one object or event. A marketing executive with even moderate creativity can come up with hundreds of possible variables. Consider the famous “werewolf” variable, the distance from the customer’s purchase to the nearest full moon. The moon effects births, homicides and snipe spawning, who says it doesn’t effect proclivity to buy? Remember, if you don’t build the variable, you’ll never know. My working definition for variable is therefore... anything you can think of.

The obvious problem with creating dozens or hundreds of additional variables is that your head can no more hold these than it could hold the millions of rows of data. Most people can only manage list selection with about six variables. Therefor there has to be some system built to see which ones are most important in specific situations. There must be a place to hold everything, there must be calculations made and there should be graphic depictions of what is going on. It is this

2 John Wirth founded and runs the successful catalog and retail chain, Woodworker’s Supply.

3 The werewolf variable was coined to suggest a variable no one had yet built but anyone could understand.
necessity for pulling it all together that requires modeling.

Modeling is the process that brings all the variables together in a meaningful structure. Our heads can’t hold it all, so the computer can help us. But we’re not going to let the computer make the decisions. The process still requires thought.

“Since one pair of human eyes has more information processing power than all of the computers in the world put together, the entire thrust of the information revolution is to leverage this power...”

The vast majority of what we do when we build a database analysis system with all the pretty charts, maps and diagrams is little more than boiling it all down to a form that makes you think.

When you start thinking about turning data into money, the real problem, the reason people don’t get it to happen is because they do not think. It is not a computer problem. When people build their databases, they do not want to think.

Turning data into money requires variables, variables require thought and thought takes work. Sorry, you probably were expecting magic at this point. You cannot abdicate your responsibility of thought. We may be able to build a system which will give you pictures but you still have to figure out how attractively to offer quality goods and services to interested qualified people. *It takes people to know what people want.*

I applaud marketing people. Within that class, some people have a knack for seeing beyond the data. Some can correctly guess, gut feel?, which products will work and which won’t. Some people can do it and those are the people you want to do the modeling. Technology will not replace these people. Your brain is so much better than a computer. This doesn’t mean you don’t need data, tools and systems. But, computers are so stupid, I hate computers, you need wizards to turn straw into gold. You are not going to get these little boxes to think for you.

I was at a conference recently and a leading Internet neural-net modeling company presented their cross-sell/up-sell system. They said that you have to trust their system because it definitely improves sales 5% or more. “However, occasionally, it produces unexpected results at the individual level. We were watching it work with a grocery site. A guy was buying a carton of cigarettes and it recommended a jar of mayonnaise.”

Turning data into money is not a systems problem. It really has very little to do with computers.

I placed a test order with a client and told them, “You didn’t offer any specials or up-sell in the order taking process.”

“You don’t understand,” they replied, “we have this complex program in our computer to analyze the permutations between all of our products, look for the strongest correlations and automatically recommend the most likely companion products.” (Which incidently is quite like the mayonnaise system above.) “Unfortunately, it won’t be online for several more months.”

“No, you don’t understand,” I replied (I’ve...
heard this so many times before), “Why not take a big read crayon and white paper and write, ‘THIS WEEK’S SPECIAL IS...’?” The computer gets blamed for so much lazy thinking. *You will never spin straw into gold unless you sell something to someone!*  

**Technology Is Important, But Only Wizards Actually Spin Straw Into Gold**

It is the magic that makes you money, selling people something that helps them reach their dreams (or at least makes them feel good for a few seconds). If we can harness the wizard’s magic, we will succeed beyond the dreams of avarice. The magic is not in the computers, it is in the human thought that interprets the data, variables, charts, etc. to turn it into profitable product offers. Granted, some computer systems make it easier to create variables, make it faster to see their impact in marketing campaigns, quicker to generate the contact lists, but before we descend into the technical abyss let us understand that the magic is not in the computer.

Perhaps Rumpelstiltskin knew more about straw than his peers, perhaps he had a super powerful spinning wheel, the story does not hint at how he achieved his feat. It doesn’t even mention magic. Nevertheless, in spinning data into money, we are forced to conclude first that the spinning wheel is only a computer supporting the creative human insight. Unless we begin here, we cannot focus on tools that support and supplement rather than seeking to supplant marketing thought.