

Network-centric Relationships

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Imagine, if you will, a digital network that dominates communications and relationship building with stakeholders -- customers, communities, and others. What would it look like and how would it operate?

Such a network exists in the internet, and as broadband and cellular communications expand, building relationships by digital network is becoming standard communications practice. What this means is that in a not-too-distant future, the first medium a communications practitioner will consider will be a digital network, followed by print, TV and radio. Information will be localized and personalized and delivered to the point of sale or moment of choice. Mass media will become mass individualization. This is happening in commerce. The only difference with network-centric relationships is that network information delivery will be pervasive.

This article examines network-centric relationship building with stakeholders in a common retail environment -- food shopping. The article is restricted to existing technologies and services. The only futurism is that networked systems haven't yet become integrated communications. What we describe is a trend but not a smooth curve to adaptation. Proponents of each medium will fight to keep market share. No medium will go away entirely. It is a question of dominance: Digital networks will dominate.

Grocery chains today have network connectivity, web pages and computerized data warehouses tracking tens of thousands of items by Universal Product Code from farm or factory to the point it leaves a store and needs restocking. Most use self-checkout systems. Some allow shoppers to scan items as they shop and avoid long lines at checkout. All are moving smartly to refine logistics to control costs and customer service. The grocery business is brutally competitive: An average store earns only 1% on gross revenues. Retailers need technology to survive, and they are installing it as quickly as they are able to do so. It is a matter of time, economics and customer acceptance. Privacy is an issue with customers because technologies that lower the cost of food shipping, stocking and sales also can tell what individual customers eat, drink and take for medicines.

The Network-centric Store

Network-centric grocery retailing has two thrusts – logistics to slash the cost of running a grocery company and customer convenience. Convenience builds customer relationships by getting rid of irritants.

The closest example of a network-centric store exists today in Rheinberg, Germany (<http://www.future-store.org>). It is a remodeled convenience store owned by the METRO Group. (The description of the store here is taken from a variety of sources.) Although customers don't see it, the Rheinberg store uses a Wireless Local Area Network (WLAN) with a central communications hub that connects to everything in the store from the back room to smart shelves to checkout counters. Ubiquitous networking allows for superior logistics and relationship building with customers. Specific technologies in the store include:

- **Smart shopping carts.** When shoppers enter and register at concierge with their shopper ID card, they get a cart with flat-panel screen (Personal Shopping Assistant) that recognizes the ID card and scans products for payment as the shopper roams the aisles. (Other stores do the same thing with wands that shoppers carry.) The cart guides the shopper through the store based on items the shopper is seeking.
- **An Intelligent scale** that automatically identifies, weighs and prices fruits and vegetables using a scanner and camera. The scale prints a tag with the final price and name of the item that bypasses weigh-ins at the checkout counter.
- **Electronic shelf labeling** with variable pricing depending on demand. If potatoes are piled in the storeroom, the price is lower. If potatoes are scarce, the price is higher.
- **Automatic self-checkout.** This is an interim solution until Radio Frequency Identification (RFID) tags are placed on all goods. Then the shopping cart will total the bill and allow the shopper to pay and leave without stopping at a counter.
- **RFID tags.** These tags respond to radio frequency energy with a 96-bit reply that is more detailed than typical Universal Product Code (UPC) stripes. There are active RFID tags that transmit a signal and passive tags that reflect back energy from tiny transmitters. The Rheinberg store uses passive tags. Of 40,000 items in the store, 1,500 are tagged at the shipping container level and 30 have individual tags at the product level. Tags automatically alert sensors when product is picked up and notify the database that the product has been removed from the shelf.
- **Kiosks.** A sommelier kiosk reads a UPC code on bottle of wine, tells the appellation, suggests accompanying dishes and compares vintages. An RFID tag on a DVD kicks off theater trailers when one places a DVD near a video kiosk. Although the experimental store doesn't have it, other stores are experimenting with deli-ordering kiosks to speed customer service. Upon entering a store, one places an order for the delicatessen counter through the kiosk and picks it up later at the deli rather than waiting in line.

- **In-Store information.** Employees carry personal digital assistants (PDA) linked to a portal to track stock and to communicate with other workers. This is part of inventory management that tracks goods with an electronic audit trail from warehouse to checkout counter.

Services not in the store but which exist in other supermarket chains include:

- **One-touch photo printing** from a home computer with in-store pickup or surface mail.
- **Pharmacy ordering by phone or online.**
- **Robotic prescription fulfillment.** This ensures speed and accuracy.
- **Smart shopping lists:** A customer compiles a shopping list online and is automatically prompted to reorder based on the individual's use rate of the product. Thus, if a family orders paper towels every two weeks, the smart shopping list will ask biweekly if the customer wants to reorder paper towels.

It is easy to understand why retailers want fully wired stores and RFID tags. Wal-Mart, the largest grocer in the US, says it could save about \$407 million annually if it had RFID tags on every pallet of goods entering its superstores through reducing wastage, shrink and miscoded products. With an RFID tag on every single item, Wal-Mart could save \$7.6 billion annually, primarily in labor costs. In addition, a fully network-centric system opens enormous new business opportunities for communications and relationship building with customers.

Shopper Segmentation

Shoppers have patterns to how they shop, but they need not shop the same way every time. They can change patterns depending on circumstances and preferences, but relationship building should adapt to their needs. For this article, we define three kinds of shoppers, but each segment blends into the other, and each can use the advantages of the other at any time. The first shopper does not enter a store at all. The second goes to a store but doesn't stay long. The third uses the store and its expertise intensively. Networks allow relationship building with each of these three segments and can pass them seamlessly from one to the other. For example, a shopper might buy food online most of the time and go to a store some of the time, or the shopper might purchase food in different stores of the same grocery chain and be recognized wherever the shopper goes.

No Store

For busy people (dual income families) or those who dislike shopping, the network-centric store is a web page with pickup at a local store or delivery. Many companies offer online grocery ordering. The shopper builds a shopping list or

retrieves a saved one through the Web, fills an electronic shopping basket and pays for it online. Workers pick, pack and ship goods or make them ready for pickup. There are two ways of doing this – warehouse or store picking, packing and delivery.

Relationship building in this environment comes from several factors. An online store must have a quantity and quality of stock at a price that draws customers in. Its web site must be easy to use. [Look at Fresh Direct (<http://www.freshdirect.com/index.jsp>) and Peapod (<http://www.peapod.com>) for examples of clean pages that are easy for shoppers to negotiate, as well as Albertsons, (<http://www.albertsons.com/>), a major grocery chain in the US.] In addition, online shoppers want responsiveness if something goes wrong, or if they are looking for items and can't find them.

Albertson's is a good example of relationship building online. The site is divided into four parts – Home, Plan, Shop and Save. On the Home page, the chain offers recipe and nutritional advice. These relationship-building items were paper circulars not long ago. Now, they are integrated into the commercial relationship the store seeks with the customer. On the Plan page, Albertsons provides buying guides including Supermarket Guru, A wine and food selector, a fruit and vegetable guide, beef cut and recipe ideas and smart eating guides. This material too was once paper-based or did not exist, but now it is an element of Albertsons network-centric relationship building. Added to the page are celebration ideas, a shopping list, advice on healthy diets and a meal idea center. Customers need not look around the Web to find information they need before they shop. It is right in front of them.

But Albertsons could go farther and chances are it will as the site develops. For example, the grocery chain could:

- Provide recipes for products offered on the web pages. Order apples and a hyperlink next to the apples will offer a sure-fire recipe for apple pie. Recipes can come from Albertsons or by cooperative arrangement with outside suppliers. The site becomes an encyclopedic cookbook for customers.
- Provide In-depth product descriptions to include advice on whether the foodstuff is cleared for peanut and other allergy sufferers.
- Offer space for customer comments on packaged products such spaghetti sauces, much as Amazon.com provides for books and videos.
- Provide video instructions to go with recipes, so shoppers can see just how to get the dinner done even before ordering food.
- Offer complementary foods to go with the foodstuff being ordered. "People who ordered this product also ordered the following."

- Develop automated advice experts for menus based on items in the shopping basket.
- Offer a daily blog on company, nutrition and product news of interest to consumers.
- Provide a data bank of product recall warnings and other official information.

The key to what Albertsons can do is what Amazon.com has largely done. It has integrated information at the customer point of sale. Publicists have spent years merchandising foodstuffs and food recipes to newspapers and magazines to fill food pages. In network-centric relationships, this material will go to the online grocer before, or at the same time, they go to a newspaper or magazine. Two barriers remain to integration – economics and the network. Some services and information are not cost-effective to deliver by network and the network itself is not yet fully expanded.

The relationship need not stop with food. Albertsons also could perform network-centric community service – a seeming contradiction in terms for a universal medium like the internet. For example, Albertsons could donate a percentage of profits from each online order to community services located in the zip code or group of codes nearest the customer. These might be gifts to local food banks to highlight the company's knowledge and understanding of the grocery business and the payment line might tell how much would be given as well as total annual contributions locally. The company could offer a community calendar by zip code and a customer comments section for how well the company is doing in each zip code delivery or pickup zone.

In addition to community service, Albertsons could promote network-centric media relations through providing a newsroom with a new products page and story ideas based on seasons, products, ethnic groups, etc. There could be a new recipe bank with comments from food editors who have tried each recipe. There could be weekly menus to merchandise in a newspaper or magazine for heart-healthy diets, low carb diets, strenuous athletic diets, etc. There could be a syndicated nutritionist advice column for reprinting, Q&As of different kinds on newsworthy food-related topics, lists of Albertsons press contacts with e-mail and phone. A publicist would still pick up the phone if a journalist called, but the bulk of news resources would be on the web page and merchandised to the media that way. In fact, Albertsons is testing many of these ideas already.

Minimal-use store

For people who prefer to shop at a store but want to spend the least amount of time doing it, an automated store guides the person through shopping and gets the individual out of the store rapidly, as is being tested in Rheinberg, Germany. The customer builds a shopping list on the web or at the store and is guided by

shopping cart through the store. The customer totes purchases on the run, weighs and prices produce on the spot and leaves quickly. It might seem odd that one can build a relationship by reducing contact, but irritations of dealing with untrained clerks and lines are negatives that the minimal use store can relieve quickly.

The minimal-use store has all the advantages of the web-based offering, but information resources in the minimal-use store are co-located with product offerings. The shopping cart with screen allows delivery of the same information to the cart. The difference is that formatting and queuing would be tied to a shelf where the product is located, to shelf tags that can display advice, as well as prices, and to nearby kiosks where information can be printed out at a shopper's discretion. In a WiFi environment of the minimal-use store, one should also be able to direct e-mail to one's home with advice, recipes and other information that one wants to have but not stuff into a bag along with receipts and cans of peas. The key to the minimum use store is speed. Quality and availability of goods must be comparable, but speed must be clearly superior. The minimal-use store maintains relationships through convenience and builds closeness through customers' occasional use of information delivered through the shopping cart panel display.

High relationship store

Some customers want high interaction with store employees. They want to discuss the right cheese with the head of the cheese department and the freshness of the crab with the seafood clerk as well as provenance of tomatoes with the vegetable grocer. They are food aficionados, and they are as likely to go to a specialty store and pay more to get the right bread with the just the right crust as they are to pick up French bread from the in-store bakery. They don't want to be bothered with kiosks and web-based information. They expect that store clerks can provide the advice they seek. E.g., a butcher spends as much time telling the shopper how to cook a special cut of meat as he does cutting it. A produce clerk advises the shopper on how long to steam an unfamiliar vegetable. A menu adviser at a concierge desk helps customers determine meals for a week for such things as weight control, low sodium and peanut allergies. A cooking studio provides demonstrations of how to prepare food that can also be e-mailed to the home as video files for customers to consult.

The network-centric store supports this relationship as well. It does this by preserving the face-to-face interaction between customer and employee but providing the clerk with information databases that support their knowledge. In essence, the minimal use store's kiosks are moved behind the counter and next to the clerk who can consult them while serving the customer. The databases would allow for special order goods such as unusual cuts of meat and ethnic products not carried in this store's stock but obtainable from the warehouse or

from relationships with specialty suppliers who gain as much by cooperating with the store as the store does.

The high-relationship store is in essence a store within a store. Some demographic locations could afford to run such a store and others could not. But the key to the store is to redirect clerks from mundane tasks such as restocking into higher-yield tasks such as building a long-term relationship with customers willing to spend more for food in order to get just what they want.

Summary

The key to the network-centric relationship is that all three formats exist at the same time and complement each other. When fully integrated, the minimal-use and high-relationship stores are usually co-located in the same building. It is a matter of how customers, community and media use them and choose to relate to the company. For the company, intensive networking must be an economic decision and not solely relationship oriented. It must be better, faster and less expensive to operate this way.

All elements discussed in this article exist in some form somewhere today. Stores such as Wegmans (<http://www.wegmans.com>) provides as many as 13 shops within a store to concentrate on individual shopper needs from Market Cafes for take-out or in-store dining to a bakery, a patisserie, an ethnic food shop and a deli, cheese shop stocked heavily with meats and specialty cheeses. The key to network-centric relationships is to put existing elements together on the networks' backbone through which relationship-building information is piped along with promotions, coupons and specials.

With the German experimental store and with the slow rise of RFID tags, grocers are beginning to see the future and communicators as well. It will take years for the system to reach full integration. It took decades for the Universal Product Code to become ubiquitous, but no one would return to a past that was filled with error and laborious because clerks had to enter the price of each item into a cash register while shoppers idled in lines.

The goal of the network-centric relationship is to become a vast food-information resource to customers while fulfilling their basic needs for food. This keeps a customer returning rather than going to other stores for products and advice.

The network-centric relationship won't be easy to achieve because even in the "no-store" scenario, one must meld people and machines. One needs creative web designers, information developers and communicators to develop and post an encyclopedia's worth of information or to find credible sources that can offer it through a company's network. Stores that do it well will have a continuous need

for writers, illustrators and others who are web and computer savvy to work for and with them.

What is important for PR practitioners to remember is that network-centric relationships have spread already to many parts of business-to-business commerce. For example, General Electric has tied utility customers close to the company through monitoring GE electrical generators over the internet. In fact, the company on its web site says this about service:

Through higher technology, we have the ability to go beyond servicing to reengineering the installed base. By doing so, we dramatically improve our customers' competitive positions. GE is in the midst of an incredible transformation brought on by the Internet explosion. Our pursuit of digitization will rapidly change our dealings with our vendors, partners, and most of all, our customers.

It is dangerous for PR practitioners to underestimate or dismiss the size and significance of network-centric relationships. They are growing, and they are the future.

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