

If one sentence could sum up modern business, it might be this: customers expect to be heard. Today's consumers don't just talk back to the TV. They blog, tweet, post, pin, share, and video their reactions, knowing that the company and many others can hear them. And if something really upsets them, they demand a quick response.

This new environment calls for a new type of corporate listening. This listening extends beyond capturing the aggregate market sentiment to hearing, identifying, and responding to individuals. It doesn't wait for customers to contact you, but actively reaches out to them based on their comments or behavior. It assembles information from all sources to ensure your response is based on a current, complete customer understanding. And it ensures that your company, like any really good listener, weighs the long-term impact of its actions when choosing a response.

We call this "proactive listening". This paper will help you to understand what it is and how you can move your company towards delivering it. Let's get started.

What's New?

Your company's goal has always been to deliver the best treatment to each person in each situation. What has changed isn't the goal, but how often and how effectively you can tailor those treatments to individuals. Specifically:

- You can access situations that were previously hidden. Formerly private conversations now take place on social networks where companies can listen for their products and inject useful information where appropriate. Previously unrecorded store visits are now registered on smart phone apps that can deliver personalized coupons and shopping advice. Utilities can automatically monitor each customer's power consumption and send recommendations for more efficient operations. Products themselves can offer maintenance and usage advice to their owners.
- You can identify individuals who were previously anonymous. Identities are now
 available on both company-owned systems, like Web sites and call centers, and
 external systems, like blogs or social media. This identification extends beyond
 merely recognizing a name or account, to connecting that with a rich history of
 past behaviors, purchases, preferences, attitudes, and influence. It's this depth of
 information that lets businesses tailor their treatments to individuals and
 circumstances.
- You can predict treatment results. New database technologies and analytical methods allow marketers to use huge volumes of historical data to estimate the

long-term impact of specific customer treatments. These estimates are combined with real-time decision engines hat select treatments as an interaction is taking place and deliver the treatments through customer-facing systems.

Something else is new. Customers now *expect* these tailored treatments. They expect you to listen and respond, and they expect your response will be based on all the information they know you have about them. Legacy systems, technical silos and corporate fiefdoms are not their concern. All they know is that if you don't meet their expectations, they can easily switch to a competitor who promises to do a better job. It doesn't even matter whether that competitor delivers: customers will keep switching until they find one that does.

What's Old?

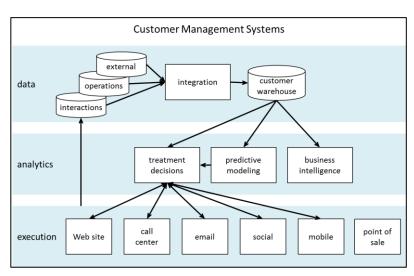
New situations, new data, new techniques: it adds up to a lot of change. But you don't need to replace all your customer management systems to support them. Most companies can add proactive listening with only minor changes to their current infrastructure. This means they can deploy proactive listening quickly with a relatively small investment.

To see how this might work, let's look at how customer management systems are typically organized. They can be divided into three layers:

Data: this is where information is gathered from source systems, cleaned, integrated by customer, and stored. The result might be called a data warehouse or customer database or something similar. Sources include customer interaction execution systems such as Web sites and call centers; back-office systems such as order processing, manufacturing, and accounting; and external systems that verify or enrich customer data. The new sources used for proactive listening are not

always fed into this layer, especially when those sources are massive data streams that only occasionally include something relevant. For example, a company might scan all Twitter posts but only store the ones that relate to its business.

 Analytics: systems that analyze and predict customer behaviors.
 Typical components include business intelligence, predictive analytics, and decision engines.



These systems use data from the data layer, although they often extract, aggregate, and reformat it for better performance. Most proactive listening functions reside on this layer, but they often sits alongside other analytics systems rather than replacing them.

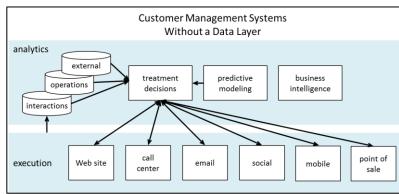
Execution: systems that interact directly with customers. A typical firm may have a
Web site, call center, email, point-of-sale, SMS, and possibly social media
monitoring and publishing. These systems usually have their own operational
databases, which may exchange information with the central data warehouse and
analytics layers. The exchange is often batch rather than real time, since the other
layers are typically not designed to support real-time interactions.

Of these layers, the execution systems are nearly always in place. A minority of firms have a data layer that integrates all customer information, although adding this is often a high priority. Unified analytics are only possible after the data layer is built, so they're even less common.

How to Integrate Proactive Listening

The current state of affairs sounds like bad news: if few companies have an analytics layer and that's where proactive listening resides, then it seems that few companies can deploy proactive listening. But reality is more subtle. **Many proactive listening systems are designed to work without an integrated data source.** They do this by connecting themselves directly to the source systems, integrating data on the fly if necessary. In other words, if not data layer is available, they build their own integrated data at the precise instant it's needed.

There are two types of source connections. One is the actual listening connection, which scans customer behaviors for treatment opportunities. The other is a query function, which looks up customer data to help make the best treatment decisions. Each has its own requirements.



Listening connections must monitor internal and external data sources in real time, identify situations that require a customer treatment, capture relevant information, and feed it to the next stage. For external sources like social media, this typically requires a direct connection to the source data and a scanning mechanism, such as a keyword search, to efficiently identify potentially interesting situations. More sophisticated text analysis is often needed to interpret the contents and prioritize the event. Internal sources such as a Web site or call center

usually identify the treatment opportunities for themselves and request a recommendation from the decision engine. There's also a third, hybrid connection, where the listening system is looking for complex behavior patterns within internal systems or even across multiple systems. For example, the system might look for a series of Web visits or a combination of email opens, Web page views, and survey replies.

• Query connections gather data to help select a response. The query is usually seeking information about a particular individual, which means the listening system must have identified that individual before making the query. The original input will usually include at least one identifier – say, a cookie ID, customer number, or Twitter handle – which must then be associated with identifiers in other systems, such as an email address, phone number, or loyalty account. This association nearly always depends on a persistent database that is built and enhanced over time. Even treatment systems that don't otherwise store much permanent data will usually rely on this type of association file, whether they create it themselves or assume it's built elsewhere. The query connection may also read other data, perhaps to check inventory levels before making a product offer. Queries must execute quickly enough to support real-time interactions. Source systems that can't support this through direct queries might be excluded or modified to serve the queries through special extracts or indexes.

Source connections represent half the integration challenge of proactive listening systems. Execution connections – that is, delivering the selected treatments – represent the other half. Again, there are three scenarios to consider:

- External connections, such as responding to messages in social media. Here the
 system must listen and respond almost instantly to meet customer expectations
 and to help contain potential problems. Human review is often still necessary to
 ensure appropriate response. In those cases, a delay a few minutes to permit such
 review is nearly always acceptable.
- Internal interactions, such as personalized Web site treatments or call center recommendations. These must be returned in real time – milliseconds for Web pages, one or two full seconds for a call center agent. Technically, these tend to be straightforward connections that call an API provided by the listening system and return a treatment displayed within a defined region of the execution system.
- Behavior patterns over time and multiple systems. In most cases, response to
 these is not immediate: although it might be delivered through a Web page or call
 center, it could also be an alert to a sales person or an automated email. This
 requires integration with whatever delivery system is required, but, again, that is
 often relatively simple to execute through a batch process or API call.

Treatment Selection

The discussion so far has been mostly about plumbing: how to connect proactive listening to your existing data sources and execution systems. While these connections are essential, they're just a means to the goal of delivering the right treatments. So any discussion of proactive listening needs to include how the treatments get selected.

We've already covered the general process: the system receives notice of a current situation, assembles additional information about the individual and context, applies decision rules to select a treatment, and then notifies the execution system of its choice. But it's the nuances of how those rules are created and applied that determines their impact. Here are some key considerations:

- Rule complexity: treatment decisions may consider customer preferences, previous purchases, predictive model scores, offer eligibility, inventory levels, program goals, value calculations, and other factors. Beyond gaining access to all this data, the decision system must let users combine them into comprehensible rules. Simple lists of if/then statements quickly become unwieldy, so additional methods are needed. Some options include branching or nested rule flows; references to shared rules; separate filters for offers, channels, and contact frequency; and precalculated scores or segment assignments. Most systems employ a two step process of first determining the eligible treatments in any situation, and then "arbitrating" among these to select which to deliver.
- Dialogues: many treatment decisions can be handled in isolation, but some are part
 of an on-going conversation, such as delivering a sequence of nurture messages or
 helping to select the best product. These conversations often extend across
 multiple channels, either over time or simultaneously. The decision system must
 recognize when such dialogues are under way and make it easy for businesses to
 design and deliver the proper flow of messages.
- Predictive models: estimates of how likely a customer is to accept an offer often play a critical role in treatment selection. Companies with existing modeling systems and staff often use these to feed their decision systems, but companies without existing resources often prefer a decision system with modeling built-in. The details vary widely: models may be developed by analysts or by automated engines; they may be rebuilt periodically or continually updated. Companies must assess their own situation to determine which approach will be fit their needs.
- Learning: decision rules must be adjusted over time as marketers learn what works, as new options appear, and as customer behaviors change. Changes to rules should be based on an understanding of long-term results. This requires tracking individual customers' behavior over time, capturing the history of situations they've been in and treatments they've received, conducting formal tests to

compare the impact of alternative treatments, and using statistical attribution analysis when formal tests are not available. Results may be deployed automatically or after manual review. In either case, the system should also provide reports that let marketers learn from its findings.

Deployment: decision systems contain many interconnected parts. Marketers need help in understanding how any proposed change will affect final results. Simulation features show what would have happened if alternative rules had been applied to a set of sample situations. Sandbox features let marketers test new rules against a small set of live situations. Administration features can simplify deployment of tested rules into full production and can report on the impact of any changes. Other features monitor system performance, add or remove resources to balance cost against service levels, and deliver default responses if the system is unavailable.

Your Path to Proactive Listening

Your company is already providing customer treatments, even if they're impersonal, unplanned, and often consist of total silence. So the only real question is how you can manage those treatments to make them as effective as possible. Proactive listening offers a path in that direction. It has the important advantage of letting you deploy it incrementally, without replacing all your existing systems or radically changing all customer treatments overnight. Here's a plan for getting started:

- Inventory the opportunities. There are many places your treatments could be
 better managed and coordinated. Build a big list and estimate the value of all the
 changes, even though you won't really make them all at once. The purpose of this
 exercise is to help your team see the full potential and to justify the initial
 investment, which will almost surely be greater than the value of your first project.
- Pick a quick win. You might have an obvious problem (conflicting offers on Web and call center) or clear opportunity (identify prospects through social media). Either way, pick an initial project that you can complete with a reasonable investment of time and money. In particular, avoid building a massive new data warehouse. Make sure your project has a clear, measurable goal (number of treatments served, number of new leads identified) that you can relate to financial value.
- Build a business case. Do some research into vendors and estimate what your project will cost. Make sure to include integration as well as software costs. Look for a solution that lets you start small and grow as your usage expands: for example, by pricing based on the number of transactions or channels supported. But also be sure the vendor can support your long-term needs, including listening across all channels and managing real-time treatments beyond marketing

messages. You don't want to achieve initial success and then have to start over because the solution won't scale.

- Streamline deployment. Resist any temptation build your own solution: deploying a packaged system is faster, lower risk, and nearly always saves money in the long run. Look for packaged connectors to existing channels such as Facebook and Twitter. Deployment will probably be easier with a cloud-based system ("software as a service"), although some companies still prefer on-premise solutions. Once you've made your choice, set up the systems, build your new content and programs, run the initial project, and measure the results.
- Measure and Expand. Carefully measure results of your initial project, including long-term customer value created. You'll probably need a formal test/control plan to do this accurately. Publicize your success. Then, go back to your list of opportunities and decide where to expand next. Keep on measuring your results to continue proving value over time.

Conclusion

Proactive listening lets your company meet your customers' demands for coordinated, responsive treatments. A proactive listening solution includes connections to customer-facing systems, integration of all customer information, and a decision engine to pick the best treatments. It can be deployed without replacing your existing customer management systems, making it easy to start small and expand over time. But you do need to get started: customers will not wait.

About Raab Associates Inc.

Raab Associates Inc. is a consultancy specializing in marketing technology and analytics. Typical engagements include business needs assessment, technology audits, vendor selection, results analysis, and dashboard development. The company also consults with industry vendors on products and marketing strategy. It publishes the B2B Marketing Automation Vendor Selection Tool (VEST), the industry's most comprehensive independent guide to B2B marketing automation systems.

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