

White Paper

Delivering on the Promise of Web-based Self-Help

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Rev. 1.0



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Executive Summary

Enterprises today face the formidable challenge of simultaneously maximizing customer satisfaction and minimizing costs while gathering important business intelligence. In tandem, consumers are actively demanding the convenience and speed of online self-help. Some businesses have been slowly delivering some version of self-help, however much to their surprise; customers have been quick to adopt this channel as their preferred medium for customer support. More visionary businesses have looked on self-help as the first line of defense in an effort to cap support costs. Meeting this exploding volume of queries has been difficult for organizations utilizing static FAQs, keyword or rules-based self-help systems. These first generation technologies quickly become unruly, complex webs of logic that have proven expensive to maintain, as companies must hire costly consultants to handle any modifications. Additionally, these technologies fail to provide any window of understanding to help companies understand whether customers are even getting the right answer. More importantly, these solutions tend to deliver inaccurate answers and often require end-users to conform to ineffective keyword techniques or cumbersome syntax that yields poor results, thereby undermining consumer confidence in the value of self-help. The combination of these rapidly evolving developments is driving organizations to explore new ways to make the most of automation to achieve competitive advantage.

Next generation web-based self-help solutions offer the potential to provide fast, accurate answers to end-users' questions, thus reducing stress on existing service channels while increasing management insight. Breakthrough automated response solutions promise to power not only self-help functionality, but also email response automation, allowing customers to become part of an organization's support system as centralized knowledge is leveraged across support channels. Web-based self-help solves problems employees used to resolve while providing a higher level of service at a lower operating cost. Past history shows that most consumers prefer the convenience of carrying out banking transactions via ATMs or pumping their own fuel. Customers who are getting adequate self-help (i.e., a fast, accurate response) are more than willing to take advantage of this added convenience, and in fact will progressively demand it over time.

In most cases, while these new web-based self-help channels do not completely replace live human support, they do offer a means for expanding service by transparently giving users accurate answers, 24x7, while significantly lowering transaction costs by diverting inquiries away from expensive agent support channels. The most effective offerings will allow organizations to fine tune their service offerings to transparently provide their customers the appropriate levels of automation performance with minimal effort. Furthermore, self-help provides a valuable mechanism for automatically collecting feedback, enabling organizations to adapt answers to meet evolving customer needs. Today, enterprises are boosting customer satisfaction and curtailing costs while assembling business intelligence by providing fast, accurate answers through next generation self-help solutions.

Adapting to mounting customer expectations

From an enterprise's point of view, one of the most difficult challenges of creating a successful website is providing timely, consistent, and accurate answers to their customers' inquiries. Not surprisingly, "Inaccurate information" tops the list of consumer complaints in the 2000 American Customer Satisfaction Index study. Common consumer demands include:

- "Your answers better be right"
- "Let me ask my questions in my own words"
- "Give me what I need and make it fast"
- "Don't force me into a burdensome process"
- "I don't want to wait on hold"
- "Keep it simple and don't make me wade through irrelevant information"
- "Don't ever close"
- "Know who I am and what I want"
- "Provide me with help and don't make me feel stupid"

Predictably, people want to ask questions in free-form, everyday natural language, and not be forced to conform to structured fixed formats. In a best practice scenario, a company uses technology to shoulder many of the tasks involved in shopping and customer service, relieving the burden from the customer.¹ Clearly, successful sites must find ways to better inform users, thereby simplifying their online experience. Putting aside cost considerations for a moment, it is evident that to successfully address these demands represents a significant challenge with even the most highly trained customer service staff. Online or in person, consumers want access to professionally managed customer service.

Customers prefer the ease of web-based service when their inquiries are accurately and appropriately answered anytime, anywhere. Actual customer contact adoption shows that all online service channels are growing, but web-based self-help and email response will experience exponential growth in the next five years. The relative importance of email response is highlighted by the fact that over 74% of online customers consider it an indispensable service capability. This is followed closely by web-based self-help at 50% and chat at over 20%.² According to Forrester Research, companies that offer customer relationship management solutions report the following mix of service inquiries: 54% use the telephone, 9% submit email inquiries, and 37% employ web search. However, in the near future, Forrester projects over 80% of consumers will use the web to answer their questions. In essence, consumers are demanding knowledge ATMs that provide instant, accurate answers.

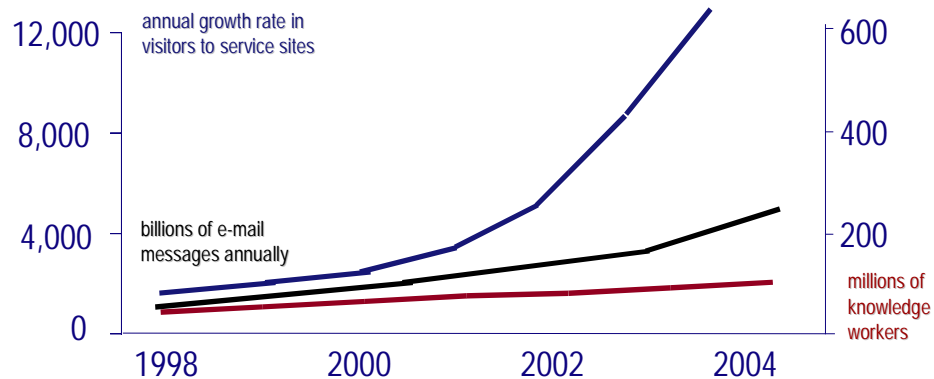
Growing volumes of free-form inquiries can not effectively be handled by humans

While web-enabled customer contact centers are viewed as essential, companies are finding it difficult to support the deluge of daily inquiries in a coordinated manner across both new and existing communication channels. Gartner Group estimates that more than 90% of enterprises are

¹ Harvard Business Review. "Exploding the Self-Service Myth." Moon, Youngme and Frei, Frances. May June 2000.

² Jupiter Communications. "E-mail Customer Service: Taking Control of Rising Customer Demand. 2000.

not adequately prepared to handle customer online inquiry volumes. But timely response is only expected to become more difficult, since Gartner Group also estimates that the volume of inquiries for customer support is expected to increase from 30 to 100% annually in the next two years. Forrester Research projects similar dramatic growth of both web and email customer contact volumes over the next several years. They report a 214% annual growth rate in the number of visitors to their service sites, with traffic to knowledge bases increasing 190% and email contact doubling. While the volume of inquiries is growing exponentially, the number of knowledge workers is not keeping pace. The challenge is simply growing too big for humans to effectively address.



Despite organizational attempts to force structured communication with mechanisms, such as web forms and Interactive Voice Response (IVR) scripts, people inevitably prefer to communicate using natural language instead of being forced to learn a technical syntax. Customers feel confined when they are forced to adhere to predefined fields; they get frustrated when they need to fill out multiple forms for related requests. Instead, they prefer to ask questions that allow one to express themselves in free-form mediums such as email and natural language query engines. Unfortunately, for business, these desirable communication types generate unstructured data that contains no metadata to describe its content.

To process unstructured data – content that does not fit neatly into the rows and columns of databases, such as email correspondence and web based self-help inquiries – organizations must either rely on human beings to interpret meaning or take advantage of automation. “IBM estimates that 85% of the data on the World Wide Web is unstructured. Relational databases are rarely appropriate for storing or retrieving vast amounts of unstructured data or text. Textual materials are too variable – in length, in type of information, in types of queries performed, or in layout – to fit a strict relational database management system (RDBMS) model.”³

The world’s rapid adoption of new communication media has created a mounting glut of “unstructured information” and has made manual handling problematic. In addition, the world’s limited supply of knowledge workers has grown at a very slow pace. Other limitations include: growing labor costs, increasing employee turnover, inconsistent quality, recurring training costs, difficulty leveraging gained knowledge across multiple channels, a need for staff to understand and respond in multiple languages, and the costs of simply finding information. IDC points out that the, “Time spent in finding information is a growing concern for knowledge workers and their employers. Recent studies have shown that knowledge workers spend 50% of their work time just

³ IDC, Document and Content Management Technologies Forecast 2000-2004, Susan Feldman and Steve McClure, 2000.

finding information.”⁴ With automated response enterprises can offload some of the associated resource requirements. The human-to-human support model, while appropriate at specific levels, can’t feasibly scale in a 24x7 high volume, one-to-many, multi-channel customer service operation.

Delivering on the promise of web-based self-help

To effectively meet the growing needs and demanding requirements of the customer, every web-based self-help solution must have the following characteristics:

- Provide accurate answers that transparently satisfy user needs with minimal effort
- Reduce stress on other channels and shrink costs
- Collect feedback to understand what your customers are asking and provide business insight
- Enable fast and easy implementation in days and weeks versus months
- Offer multi-lingual capabilities without requiring new releases
- Make available cross channel learning and escalation with intelligent email response systems

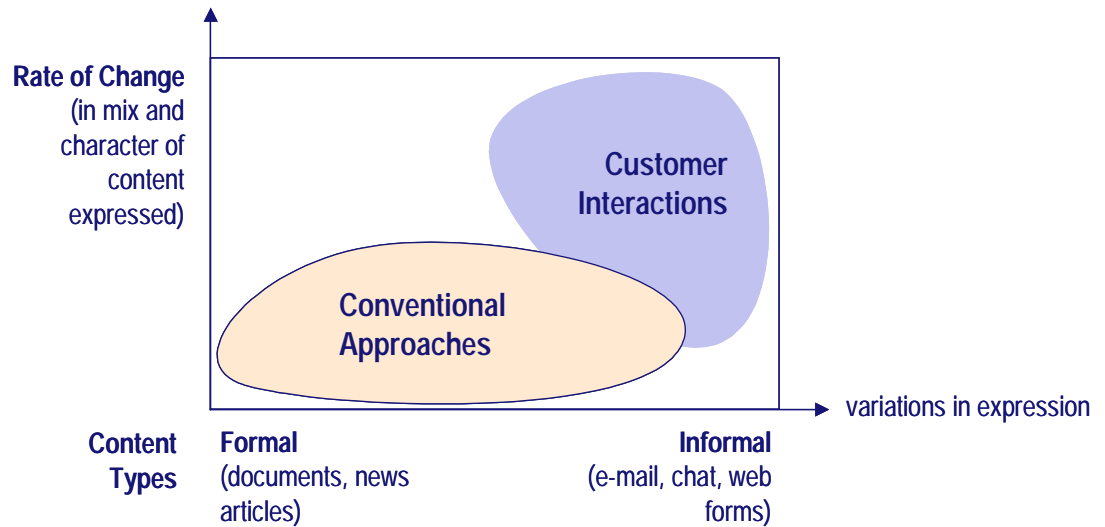
Provide accurate answers that satisfy user needs with minimal effort

Understandably, consumers want accurate answers to their questions or requests. After all, technology should adapt to the user’s requirements not vice-a-versa. In essence, first generation systems require users to learn syntax or muddle through by guessing appropriate keywords that may not exist, and then search through frequently irrelevant “answers.” This additional exertion equates to customer frustration and an unnecessary “time sink” for the consumer. An enterprise that can offer a self-help application that consistently delivers superior accuracy is delivering significant value to their customers in terms of less involvement (e.g., deliberation, research, etc.) and more immediate satisfaction (e.g., preventing customer frustration when receiving the wrong answer).

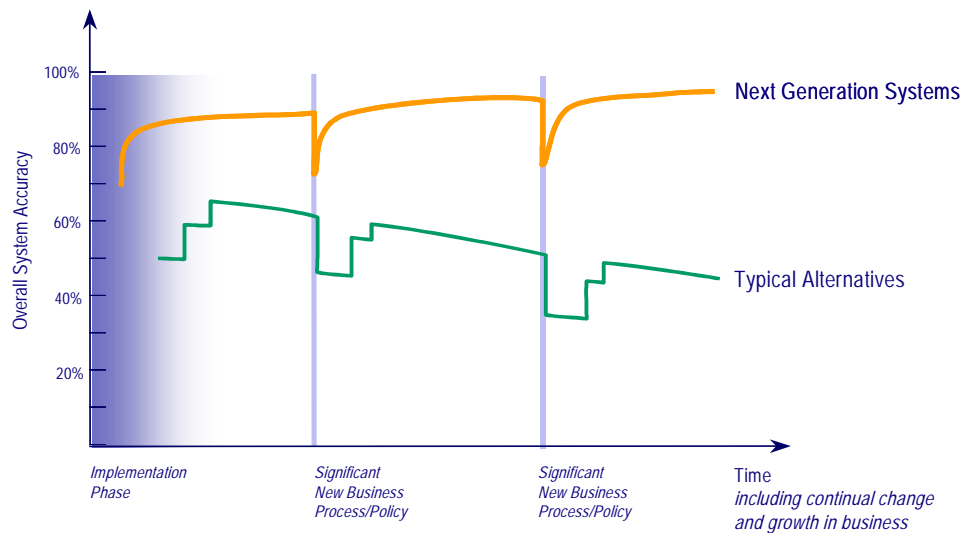
Accurately understanding free-form web-based inquiries presents unique challenges. Real world inquiries contain a unique combination of content attributes that make it difficult for conventional systems such as static FAQs, keyword or rules-base self-help systems, and simplistic routing and escalation techniques. These technologies have difficulty delivering accurate responses that consumers demand because of:

- Variations, ambiguity, and errors in expression, i.e., the kinds of natural spelling, grammar, and semantic heterogeneity people introduce when they communicate in the more informal channels normally used for customer service (“what’s my account balance?” vs. “how much money do I have left?”).
- Continual change in the nature and the mix of the content being communicated over time, as business propositions or policies and customer issues evolve naturally over time, both within the business (e.g., new products and services, web site upgrades) and external to a company (e.g., recalls, publicity, fads).

⁴ IDC, Document and Content Management Technologies Forecast 2000-2004, Susan Feldman and Steve McClure, 2000.



Normal business events such as changing promotions, new products, new pricing, acquisitions, etc. and informal variations in expressions create new types of communications containing new concepts that confuse first generation systems. Static keyword, rules-only, and statistical systems ignore the new intents introduced by these ever changing customer interactions, and need to be re-programmed or re-trained. These systems often fail in cases where inquiries are introduced with the same intent but are worded in a different way. In an attempt to keep up with this growing complexity, companies are required to embark on a daunting, expensive agenda of manually retraining, rewriting and testing an ever-increasing labyrinth of new rules or statistical models. Meanwhile, the static “snapshot in time” nature of these systems causes customer satisfaction to suffer because their systems are providing the wrong answers or launching the wrong workflow. The efficiency they once delivered crumbles over time in these new complex environments.



Maintaining these systems gets more cumbersome and very expensive as time goes on. If the rules are not well documented the system can be made useless by the departure of a key individual. Typical statistical systems are based on static statistical models. One must assume change; decay or erosion of accuracy is inevitable. Simply put, to deliver on consumers’

expectations for quality service and evolve an e-Business at Internet speed, these systems must do more.

Automation performance is achieved by optimizing the combination of accuracy and percentage of automated responses delivered to the end-users'. As mentioned earlier, accuracy is a critical component of a successful solution. However, accuracy alone does not provide you with a clear view of the value of the technology. Two very different web-based self-help solutions may rightfully claim to be 90% accurate. Only when you measure accuracy in relation to the percentage of coverage, response automation or "recall", do you see the true efficiency measure of any web-based self-help solution.

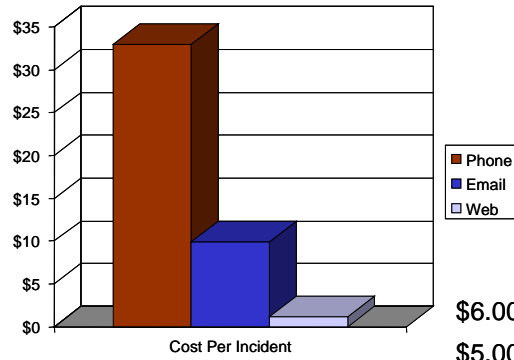
Furthermore, how the technology adapts in real time is an additional component of evaluating accuracy. The optimal solution starts off with high accuracy and maintains that precision by constantly updating itself based on the real time feedback of the application end-users. The desirable approach allows this information to be collected implicitly from the use of the application (i.e., the end-user is not aware that this feedback is occurring), and as such, significantly reduces the manual support that is typically required to maintain or improve accuracy levels for existing answer categories.

Automation performance will become even more critical in providing companies competitive advantage as the volume of inquiries continues to grow across channels. A Yankee Group Report⁵ found that over 49% of inquiries addressed by traditional systems were answered incorrectly or the responses caused the individual to contact customer service via the more expensive telephone channel. The negative impact on a business' ability to retain customers will surely be affected by this lapse in service, as well as, influence the likelihood that they will adopt lower cost online service channel options in the future.

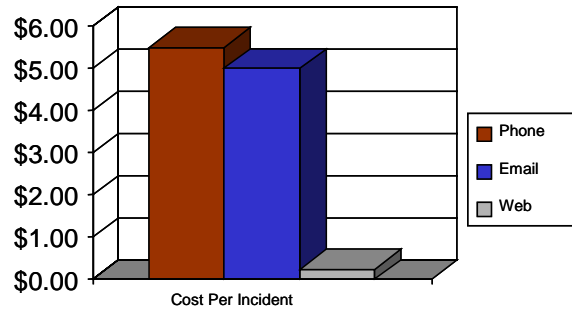
Reduce stress on other channels and shrink costs

The value of web-based self-help automation can be illustrated by the following cost comparison study. A Forrester study provides a data point detailing the following customer assistance costs per transaction across multiple channels: phone – \$33, agent based email response – \$9.99, and web site self-help – \$1.17. Clearly, a self-help solution powered by a smart engine to automatically deliver answers with little or no assistance from agents offers businesses significant cost savings. While the actual cost projections vary between studies (e.g. see Forrester and Gartner studies below), the costs of human assisted channels remain substantially more expensive than automated alternatives.

⁵ Yankee Group, "Email Response Systems" 1999



Source: Forrester Research



Source: Gartner

For example, a medium-sized contact center that receives 1.2 million calls annually could easily realize an estimated annual operating cost saving of \$500,000 by successfully diverting 10% of phone traffic to a self-help channel. The \$500,000 savings is based on applying the \$33 cost per phone incident to the \$1.17 cost per self-help incident. These calculations are not unrealistic given the fact that typically 80% of the customers are asking questions about the same 20% of the corporate universe of answers. Surely, there is an opportunity for additional automation efficiencies.

“Demand for this is definitely picking up,” said Paul Hagen, an analyst with Forrester Research, the Internet consulting firm. “A year ago, it wasn’t even on people’s radar screen. But it is now, because companies are past the ‘I’ve got to get the site up and running’ phase, and they’re thinking about how to do it well.”

Collect feedback to understand what your customers are asking and provide business insight

Self-help needs to provide a valuable mechanism for automatically collecting feedback-enabling organizations to adapt answers to meet evolving customer needs. Additionally, systems should learn, at the administrator’s discretion, directly from the actions of customers, in order to improve accuracy and automation performance over time. Comprehensive reporting provides tighter focus on customer-driven business process identification and automation – getting to know what your customers really want. Next generation solutions will enable enterprises to conduct root cause analysis (e.g., identify reasons for cancellations, recognize areas that need improvement, etc.) via reporting capabilities. By identifying trends organizations can better adapt answers to meet users’ needs, and thereby increase customer “stickiness.”

Enable fast and easy implementation in days and weeks versus months

If self-help technology is too resource intensive to implement, it is unlikely to get carried out, or worse yet, started and abandoned. Next generation systems must offer easy HTML customization

and multiple startup alternatives to provide for the nuances of each customer environment. Self-help should effortlessly fit into a company's existing web structure, offering support whenever and wherever it is needed. Systems must accommodate for small training sets endemic to the customer interactions, and must learn quickly to accurately answer new or changing inquiries. Also, systems need to enable companies that may not have a collection of sample inquiries and still allow them to be able to easily and quickly get started. A self-help solution must provide easy and flexible implementation options that enable our customers to be able to leverage its power on the first day of production, and achieve over high accuracy in most categories. A fast and easy implementation alternative is an essential attribute of any effective automation solution.

Offer multi-lingual capabilities without requiring new releases

Next-generation systems need to scale from both a business and technical perspective. A recent issue of *Business 2.0*⁶ offered the following statistic, "Ninety-one percent of the world's largest companies cannot reply to emails written in a foreign language." The globalization of economies illustrates that companies, automated or not, are going to need to be able to respond to customers in multiple languages. Over 50% of web users speak a native language other than English, and these users are four times more likely to purchase from a site that communicates in the customer's language

This represents a significant challenge and opportunity for companies, and will be a necessary feature of intelligent auto response systems. A smart engine needs to improve its own predictive accuracy in multiple languages and evolve with changing communication types in a market characterized by transformation. Adding a new language should be as easy as a simple configuration option, with no need to wait for the next release of the software or to change application code.

Make available cross channel learning and escalation to intelligent email response

Managing all customer interactions seamlessly across multiple communication channels to avoid "islands of automation" is a critical need for enterprises. A web-based self-help solution should have the capability to serve multiple channels out of an integrated knowledge base. For example, knowledge gathered by monitoring chat agents, can be used to make email analysis more accurate. Knowledge that is gathered by monitoring email agents could be used to handle web-based self-help inquiries more accurately. This should be achieved without any manual configuration. In a way this is the original premise of knowledge management – push knowledge from the more human intensive channels to the more automated or unattended channels automatically.

Organizations can leverage this single knowledge base across multiple modes of inbound communications such as email, web forms, and self-help reducing the cost of implementation and maintenance. This sort of system would provide issue escalation to appropriate channels for rapid resolution of customer inquiries. For example, a customer that does not get a satisfactory answer via web-based self-help may automatically escalate that question via email.

The benefits of real-time cross-channel learning are extremely compelling. Imagine a company that begins receiving high volumes of a new type of inquiry. When the support organization recognizes that a new inquiry type exists, they can quickly create a new answer category and begin manually routing messages to this category. After 5 to 20 messages are assigned to this category,

⁶ Source: Worldlingo.com, published in the March 20, 2001 issue of Business 2.0 pg. 46

the system will learn to categorize similar messages appropriately. As a result, a customer asking this inquiry through the self-help channel will get accurate responses only a short while after the category was created.

About Banter

Banter's Online Customer Care Offerings

If your online customers aren't getting the right answers, right now, then you could be running the risk of losing your most valuable asset – your customers. Banter provides proven high performance automated response to your customers' questions. In fact, for this reason and others ABN-AMRO, Royal Bank of Canada, Wells Fargo, VeriSign, and Nintendo have standardized on Banter for online customer care.

These companies have discovered that addressing online customer inquiries with prompt, accurate, and consistent answers eliminates the "time sink" and frustration of sorting through high volumes of irrelevant "stuff" required by other solutions. Banter Self-Help automates responses with unprecedented automation performance and ease of use – actually delivering the productivity improvements promised by the first crop of solutions in the market. Banter Self-Help provides fast, accurate answers to end-users' questions, thus reducing stress on existing service channels while increasing management insight.

Measured on the basis of these productivity gains alone, our current customers have shown that their investment in Banter software is typically recouped within the first quarter of operation -- and the immeasurable benefits of increased customer satisfaction and customer retention from more prompt and accurate responses to their issues makes the solution all the more attractive.

Contact Us

To find out more about how Banter's software can help you satisfy customers and control your costs of service, reply to sales@banter.com. Or speak with one of our salespeople directly on 1.877.992.2683. To see our technology in action, go to <http://www.banter.com>.

We look forward to helping you take your customer service operation to a new level of performance.

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