

Contact Center Analytics Primer

By: Rob McDougall
Upstream Works Software

August 2010

Analytics means a lot of different things to different people. One of the foundational principles of any analytics effort is to ensure that the information being used is accurate, accountable and auditable. This paper explains the various types of analytics available and clarifies the need for data quality across the contact center.

About the Author

Rob McDougall, President and co-founder of Upstream Works has been a catalyst for change within the Call Center industry for many years. With Upstream Works, he developed a successful business that provides call center solutions to many high profile customers. To ensure that Upstream Works continues to be a leader of innovation, Rob plays an active role in promoting the company through corporate evangelism, articles, and various speaking engagements. Rob is the author of many of Upstream Works' whitepapers.

Prior to the creation of Upstream Works, Rob held the role of R&D Director for TSB International/Telco Research, where he was responsible for product development and the tactical direction of InterLYNX CT, which was renamed and ultimately evolved into Upstream Works' core interaction context management suite.

He graduated as an Electrical Engineer from the University of Western Ontario.

He can be contacted at rmcdougall@upstreamworks.com

What is Analytics?

Do a Google search on call center analytics, and you'll get over half a million hits. Analytics solutions abound, providing widely differing capabilities and benefits. Understanding which solution or process will be the best one to apply to your organization is more daunting than ever. But it is an important concept to understand – in two different surveys in late 2009, CIO's identified analytics as one of their top two priorities for the coming year. Unfortunately, due to the ease at which information can be disseminated across the internet, this important concept quickly becomes muddled, and it becomes unclear just what represents a good analytics solution.

According to Gartner, "analytics leverage data in a particular functional process (or application) to enable context-specific insight that is actionable". We can break the industry concept of analytics down into two main areas – the solutions that provide you the data you need to do analytics, and then the process of doing an analysis on that data. Many of the advertised analytics solutions today simply provide you with new views of existing data. Deriving your operational and strategic key performance indicators is still left up to the user to define as an exercise – read: you have to do the heavy lifting yourself. There are many reporting tools available that can concatenate a wider variety of data sources and provide key performance indicators to your management or executive. Dashboards provide the same type of solution. But using the data to do any type of meaningful root cause analysis is just as difficult as it is today, because you're not really dealing with anything that's new. If you're getting a new view of the same old data, then that information will be no easier to use than it was last year. And you've got to ask yourself – if you could have done more meaningful analysis last year so easily, then why didn't you do it?

When one speaks of contact center analytics, the conversation often defaults to speech analytics. Since two of the largest providers in the call center industry provide call recording, it's natural that speech analytics has a very high profile. And while speech analytics does provide net new information (as compared to the concatenation tools listed above), they fail in one significant place. Google's audio search tools claim to have accuracy in the 70 percent range, which drops to 50 percent when accents are involved. Speech Analytics' vendors claim higher accuracy rates but still have significant room for false positives and missed information – putting the quality of the information upon which to base business decisions seriously in question.

Customer experience analytics is a newer form of contact center analytics, which combines existing information from multiple customer touching systems into a single view of the customer. These solutions use algorithms to provide some meaningful information about contact center operations and how to improve processes to eliminate waste. They can provide a business with new insights based upon the data that is available to them. However, understanding the validity of the data available is problematic, and, in most organizations, the data used is incomplete.

Data quality - accuracy counts

At a recent conference, the question posed to a group of senior call center executives was, “How do you ensure the quality of your analytic data?” Surprisingly, the group declined to answer the question because they didn’t have the faintest idea of how to do it!

The contact center is probably the most challenging business unit in any company, mixing data base activity with real time interactions, and then complicated by the vagaries of random human behavior. As a result, contact centers are just now figuring out how to derive some business answers that go beyond handle times. Is it any wonder that when the topic of data quality comes up – that is, is the data you are collecting actually correct all the time? – they just close their eyes and push forward. It’s difficult enough to understand what the data is telling you in the first place, let alone trying to figure out if the answers you are getting are reflecting reality.

So how does one actually figure out if the information they have is factually correct? It becomes clear to the executive very quickly. Factually correct and complete information should allow an auditor to pick any given customer interaction and easily determine how it affects the final KPI – that is, determine which side of the fence it sits on.

Most contact centers can’t do this because they are missing information along the line that allows them to cleanly traverse the data in any direction. It’s like that evolving, fourth generation spreadsheet when someone says, “well, how did you get these numbers?” The analyst can’t explain it, because data was missing along the line, and inferences, approximations, and/or cleansing was done. And by the time the executive asks the question - and the analyst tries to put the answer together - it becomes clear that all of the detail needed wasn’t actually captured in the first place. But by then, it’s too late to go back and get the right information, because it’s gone.

And this happens because the trade-offs that were made - anomalous data was excluded; the holes in the data were glossed over or cleaned up through laborious manual processes. In other, more dangerous situations, some of the data was just wrong – where incorrect customer entries were made or program errors occurred - all with no indication. So too the final numbers that were generated were subsequently wrong as well.

Data quality is the cornerstone of any analytics process. Although seemingly unknown in the contact center space, this is a BIG issue to Business Intelligence professionals, costing the average business over \$8,000,000 annually according to Gartner.

A single version of the truth

The holy grail of contact center measurement is to get to a 'single version of the truth' – a single consistent view of the customer and agent experience, coupled with device performance. It's clear that multiple versions of the truth abound – from PBX reports, IVR logs, CRM reports, billing systems, and more. This multiplicity of data sources leads to different answers being arrived at depending on when and how a question was asked. Because the available data is not auditable, there exists these multiple sets of conflicting and overlapping data – great if you're trying to prove something, but not great if you're trying to do what's best for the business.

For any contact center analytics program to be successful, you first need to get a single, consistent, auditable source of data that contains complete information on what you will realistically be trying to measure – to get that single, consistent version of the truth. In contact centers, that means you should be collecting data on agents, customers, and the various devices they interact with. To do this, you need to understand the context of any given interaction – the reason for the contact, the outcome of the contact, and any adjunct business information that relates to the interaction. You also need to understand when the contact occurred, and how it was processed. Finally, you should be collecting this information consistently, and on every single interaction, regardless of contact channel.

Facts for every interaction type - regardless of channel

This level of data provides you the detail you need to be able to move from detail to KPI and back again, based on customers, agents, or devices – the basic things that you can measure in the contact center. Having this data available means that you can now start to get answers to common business issues that will be consistent and completely free of user bias. With detailed information for each interaction, you can provide facts to back up any summaries that you produce – whether they be to the CEO, outlining how the contact center is positively affecting customer churn, or to the agent and how they need to get additional training on using the billing system.

Having the factual detail means that you can flaunt conventional wisdom and do what's actually best for the business. It allows you to assess your survey responses and determine if the negative comments received were representative of a significant call volume, or if they were outliers with no real business impact.

Collection of detailed information on every interaction – in a consistent and automated fashion – lets you implement an ongoing and economical analytics program – to continually improve – rather than a series of one-off projects for specific initiatives.

All of this data combines to give you real information about the business performance of your contact center – to identify customers at risk; frequent callers; or external processes that drive contact volumes. It lets you improve accountability across the business – to apportion churn to that new product release, or to apportion the overtime budget last month to marketing because of the latest catalog program.

It gives you the ability to make decisions based on, as Dragnet's Joe Friday said, "just the facts."

Data quality improvement

So how does one go about fixing this data quality problem? Well, there are a few things that have been discussed in this article. You need to track a specific set of information across the customer, agent, and device dimensions. Start by evaluating what you are capturing today and how you would create a data mart containing this information. Then, do a gap analysis to see if you have enough data to provide the auditable detail, or if more is required. In all cases, capture information as close to the source as possible – the farther you get away from the actual device, process or person, the more error and estimation you introduce. If more information is required – then you need to implement a solution which will help you capture the data cleanly and consistently.

Getting good, quality data is going to lift up some rocks and show you some nasty things about your business. But with this information, you can use the historical facts about what your contact center performance actually is to improve the business. And THAT'S analytics! With sufficient detail, you'll not only be able to understand and resolve your business and the call center process issues that drive customer calls, but also which agents are best at handling specific contact reasons and provide improved coaching and training to drive overall contact center improvement. Ensuring that your final data repository is auditable and drillable from the top level numbers to the interaction details for every interaction puts you well on the way to continually improving your customer's experience and improving overall contact center performance.

Copyright Notice

©2010 by Upstream Works Software. All rights reserved. Unauthorized reproduction or redistribution of this document in any form, including photocopying, faxing, and image scanning is against the law and prohibited without the expressed written consent of Upstream Works Software.

Feedback and More Information

Thanks for reading this report. I hope that you have found some valuable information that will help you achieve your call center and corporate goals. I welcome your comments about this white paper, and invite you to suggest other topics that you would like us to address.

Rob McDougall
President
Upstream Works Software

Phone: (905) 660-0969 x 358

Email: rmcdougall@upstreamworks.com



Upstream Works

www.upstreamworks.com