

The Power of "Location Intelligence"

A Business Person's Guide

"The purpose of a business is to create a customer." -Peter Drucker



THE TIMELESS WORDS OF PETER DRUCKER

(widely considered to be the father of "modern management") surely apply to location-based "x" – "location intelligence" tools. These digital tools are developed from complex interactions of databases, software, user interfaces, satellite positioning, and geographic conventions. These tools provide a "next generation" of geospatial information systems (GIS). Even if you don't understand how projections of latitude and longitude work to generate computerized maps, location intelligence tools can provide a business with an opportunity to improve dramatically the

business' understanding of its customer and thereby create value.

Understanding the customer should be the primary driver of every business. Over the last 20 years, the growth of Business Intelligence and Market Intelligence has been staggering.

However, one type of "intelligence" has been conspicuously missing from a complete understanding of a customer – location!

Until recently, for most businesses, location intelligence meant zip code or city or metropolitan statistical area, or perhaps even an address. In most cases, visualization of location data has been in spreadsheet columns. This presentation has provided a limited view of the customer, the events and transactions that are associated with a customer, and where value for the customer is

created. Patterns have been difficult to discern, and certainly assessing marketing and ad campaigns has been more of an art than a science. This difficulty resulted in such oft-repeated quotes as:

"I know half of my advertising spend is wasted; I just don't know which half."

This is usually attributed to one of three famous, early entrepreneurs of mass consumer product companies and retailers, John Wanamaker, legendary pioneer of retail merchandising and marketing among them. Mr. Wanamaker could have used location intelligence to help determine where his wasted advertising was spent – perhaps down to the individual customer.

However, the targeting of customers goes beyond mass-marketing and advertising. Whether the relationship is B2C, B2B, or B2B2C (business to business, business to consumer, or both), the ability to create value – to create a customer – is a fundamental part of economic, social, and political life.

Understanding what the customer values is becoming more sophisticated than analyzing demographics, psychographics, and "code-words." Collecting customer behavior data, especially through Internet transactions, has transformed the way businesses understand their customers. Tying customer behavior to location provides even more insight into "why" and "when" by adding the "where" dimension.

As the data are analyzed, it is clear that in some cases, mobility and the location intelligence that are associated with your customer "on the move" may be more valuable than traditional stationary analysis by address or zip or zone. Where is the location of the business office when a cell phone, laptop, smart phone or any combination of communications and applications may result in a virtual office anywhere? Today, marketing to businesses is much more complex than calling on headquarters.

Fortunately, location intelligence tools have become available and accessible in abundance –

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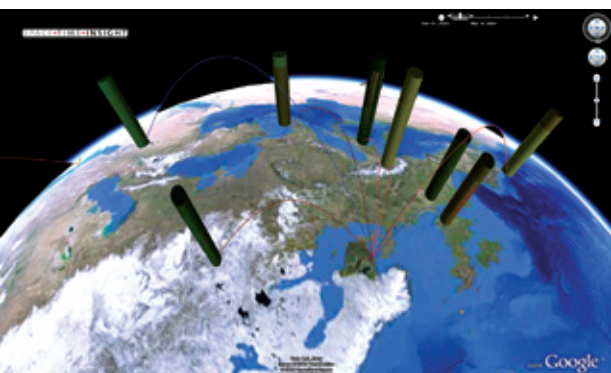


◀ **FIGURE 1.**
Microblogging service Twitter conversations are visualized here with 1500 arcs linking people talking to each other. This geosketch image was processed by Walter Rafelsberger, MODUL University Vienna, Department of New Media Technology.

GPS, smart phones, personal navigation devices, and web-based mapping have been put into the hands of consumers. In an odd sequence of events, consumers are using these tools for social networking, hobbies, and fun – while most organizations have yet to make use of the power of these tools and the associated data in a business context. (Editor's note: See related story in our column *Game Changer*, "Taking Net Technologies Behind the Firewall," on page 7.)

› Creating a Complete Customer View

In creating a customer, location intelligence can be coupled with business intelligence and market intelligence to create a complete view of the customer. In addition, location intelligence provides a foundation for indexing other elements such as weather, terrain, distance, and new behavior data. Here are some areas of the business that can leverage location intelligence.



◀ **FIGURE 2.** Space-Time Insight's geospatial dashboard enables supply chain planners to visualize demand and supply across locations, over time, and in the context of local seasons and weather conditions. This helps planners more effectively meet demand. The solution includes real-time data feeds, alerts, and analytics and is directly linked to workflow systems. Planners use the application for location-intelligent and condition-aware visual scenario planning. Pop-up remedial action and workflow scripts link directly to workflow systems. Time-based streaming with full-context historical playback enables root cause analysis.

SALES – Where is my customer?

While it may be interesting to see which zip code contains the wealthiest households or the most successful companies, it is much more interesting to use location to correlate where you have a competitive advantage due to access (communications services), or ethnic store locations (consumer goods) or time of year (golf course locations). Specific location can be approached with both direct sales and indirect sales channels but with a better understanding of the customer. For example, there is an advantage in knowing that after the ball game, cell phone traffic skyrockets during the spring as the fans head out to their favorite beverage location. This provides an incredible opportunity to follow a significant spending pattern as well as to identify a potential supply shortfall.

MARKETING – What are the price points and compelling messages in my target area? What adjacent markets can use my product/service? Where do campaigns have the most success? Why?

Today, advertising is becoming more accountable, more measurable, and marketing campaigns can't neglect the insights that location brings. Gathering consumer or business behavior by location is one of the most insightful sets of data that a marketer can collect and analyze. Knowing the weekly traffic patterns and buying habits of business travelers can

provide insights into building value with offers that know when and where the travelers are active. See *Figure 1*.

SUPPLY CHAIN – How do I manage inventory across regions?

Supply chain management is not just for large retailers – small companies can use location data to relocate supply to meet demand based on location characteristics (weather, events, local trends) vs. traditional historical monitoring. See *Figure 2* for a visualization of demand and supply across locations, over time, and in the context of local seasons and weather conditions.

PARTNERSHIPS – What value can be bundled with complementary offers by location?

Economic, social, and political events affect different areas in very different ways. These drivers tend to make a partner an asset in one area, and a liability in another.

"Knowledge has to be improved, challenged, and increased constantly, or it vanishes." -Peter Drucker

What is clear from this litany of location advantages is that customers are increasingly found in fragmented "affiliate groups" and that value is created by meeting the needs, wants, and desires of the group. This approach challenges traditional understanding of market surveys, demographics, and psychographics. Location data helps challenge

the conventional wisdom and enable innovation that brings value to a customer.

"The only thing we know about the future is that it will be different." -Peter Drucker

Location intelligence monitors change – natural disasters, economic impacts – and can present this information in real time. In a world where news is instantaneously shared across all media, a new "map" of the landscape is valuable in understanding change. Whether the issue is supply and demand, simple access or hoarding, buying or selling, reaction to change in the customer's world is "time to market."

"We now accept the fact that learning is a lifelong process of keeping abreast of change. And the most pressing task is to teach people how to learn." -Peter Drucker

Location-aware tools in business have the power to communicate, educate, and improve the bottom line. Visualization tools that integrate maps and location have the ability to present multi-dimensional concepts that change your business. More importantly, you can change your business based on your customer. ☒