



Forecast: Geodemographics will grow increasingly important to future business intelligence

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Description:

The science and practice of geodemographics are concerned with analyzing people, groups, and populations based on tight-coupling who they are with where they live. The “who” in this small formula can provide information about a potential debtor, customer, or voter’s likely economic profile, social status, potential political affiliation, and so forth, essentially classifying people into various socio-demographic and socio-economic bins. The “where” part of the equation is tasked with identifying what part of a city, postal code, or neighborhood those people might reside in, for the purposes of allying them to their neighboring property markets, crime statistics, retail landscapes, and so on, essentially placing them in a particular spatial cluster.

Together, this allows populations to be indexed by lifestyle types, situated in market catchment areas, and tagged with particular geodemographic targets or value-platforms. This results in the assignment of population samples, transactions, and products to groupings such as “young literati” or “money and brains” and placing of them with market-related profiles such as “elite suburbs” or “exurban blues”. These tags are used to guide a host of activities, from drawing polling samples across the full range of geodemographic groups, to targeting mass-mailing campaigns, and siting roadside billboards.

The dataware for geodemographics traditionally relied on mashing-up socio-economic data collected by census bureaus and other groups with market research and point-of-sale data by businesses or conglomerates. A number of geodemographic groups have emerged to provide geodemographic analysis services ([Claritas](#), [CACI](#), and [Experian](#)), while other businesses (particularly in insurance and retailing) have large in-house geodemographic teams (Target Corporation, Tesco, PLC).

Traditionally, the science has been relatively imprecise. Geodemographics has been plagued with problems of ecological fallacy, relying heavily on assignment of group-level attributes to individual-level behavior. Because of early reliance on data from census organizations, which aggregate returns to arbitrary geographical zones, the spatial components of geodemographics have also suffered from problems of modifiable areal units, i.e., there are an almost infinite number of ways to delineate a geographic cluster. Data are often collected for single snap-shots in time and are subject to serious problems of data-decay, whereby households for example, may frequently move beyond or between lifestyles or trends, without adequate means in the geodemographic classification system to capture that transition longitudinally.

Recent years have ushered-in a sea change in the evolution of geodemographics toward a more precise and refined science. A number of developments have supported this shift. First, the practice of geodemographics is now decades-old with an evolved set of standards and practices as well as well-developed business alliances and data-sharing agreements across groups and industries. Second, there has been a surge in the availability of data and dataware across interest points and populations. Customers now routinely yield a plethora of personal information in return for consumer loyalty cards or insurance quotes, for example, or share their ZIP-code and phone numbers at the point of sale, in addition to involuntarily sharing their names when using credit or debit cards. By simply adding an email address to such geodemographic harvesters, it is relatively straightforward, in many cases, to cross-reference activity in meatspace with their data shadow in cyberspace, either generally by using reverse geo-coding to cross-reference an IP address with a physical location, or specifically by tying email address to blogs, posts, or transactions. Third, developments in related retail intelligence, business analytics, inferential statistics, and geocomputing have increased the level of sophistication with which these data can be processed, analyzed, and mined for information, often at the point of



sale, increasing the speed with which people or transactions can be tagged and tracked across systems, and new trends and emerging geodemographic categories can be identified and leveraged for maximal use. In some instances, expert systems software is even coded into the software at cash registers.

Current and near-horizon development promise to catalyze further evolution in the sophistication and applicability of geodemographic analysis:

The geography of your data shadow will become as valuable as the activity-space of your transactions

In many of the markets where geodemographics are widely deployed, cyberspace is proving to be as valuable a business territory as meatspace. This is particularly true with respect to retailing and insurance, where locating and identifying clusters of key target demographics (particularly younger consumers) within the cyberspace of Web portals, Online social networks, virtual worlds (and perhaps even via advertising in Massively Multi-player Online Role-Playing Games (MMORPGs)) is increasingly important in identifying new trends and consumers. A number of businesses have already begun to setup shop by branding large sections of popular virtual worlds, such as Second Life (see the Wikipedia entry for Second Life businesses, [for example](#)). Cross-linkages between the geodemographics of tangible transactions and virtual (co-) presence are likely to become increasingly valuable data points for business intelligence.

Geodemographic analysis will automate, providing near-real-time business analytics

Data-decay problems are likely to evaporate in the near-future. Technologies based around Radio Frequency Identification (RFID) and RFID tagging, initially designed for automated stock-taking in warehouses and stores, are now widely embedded in products, cards (and therefore wallets), and the environment, with such pervasiveness that they enable large-scale activity and interaction tracking, particularly within a closed environment such a supermarket. Coupled to something like a customer loyalty card, these systems allow for real-time feeds of who is interacting (or not) with (not just buying, but handling, or even browsing) what products, where, when, with what frequency and in what sequences. Expect the huge volumes of data generated by such systems to provide fertile training grounds for AI-based software for sorting and predicting consumer preferences, facilitating a revolution in personal and tailored marketing.

Interoperability across diverse geodemographic databases will grow, adding value to diverse data-sets

As the spatial precision of geodemographic analysis moves to smaller spatially non-modifiable entities (i.e., from a geography with Census blockgroup boundaries as the smallest grain of resolution, to individual people), it will become possible (and feasible) to develop cross-indexes of diverse and disparate data sources across a huge variety of domains, from Online search histories to preferred gas stops and magazine subscriptions.

Geodemographics will become mobile

The increasing fusion of mobile telecommunications technologies (cell-phones, PDAs, personal media devices, handheld gaming devices) with locative technologies based on Geographic Positioning Systems (GPS) or positional triangulation from Time of Delivery (TOD) across cell towers and Wi-Fi access points opens-up a new environment for mobile geodemographics. This is a novel development for two main reasons. First, it creates new avenue of inquiry and inference about people and transactions on-the-go (and associated questions and speculations regarding where they may have been, where they might be going, who with, and to do what). Second, it allows for geodemographic analysis to be refined to within-activity resolutions. This has already been put to use in the insurance industry, for example, to initiate pay-as-you-go vehicle coverage models, using GPS devices that report location information to insurance underwriters (see pay-as-you-drive, by [Norwich Union](#)). Expect to see function creep for such services, particularly in the rental car market. How much of a discount would consumers be willing to offset in return for yielding access to their car's engine recorder logs? Mobile phone providers have also experimented with business models based around location-based services and location-targeted advertising based on users' locations within the cell-phone grid. How susceptible would consumers be to targeted advertising that informed them that, "other people who bought a decaffeinated double-shot mocha at location x before walking to location y also like to buy products a,

b, and c at locations m or n."? Groups have already begun to experiment with targeting billboard and radio advertising to individual cars based on similar schemes (Salladay, 2002).

References

- [1] Associated Press (2008), "[Magellan debuts cellular-enabled GPS device with Google listings](#)", Examiner.com, January 7, 2008.
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- [5] Salladay, R. (2002), "[High-tech billboards tune in to drivers' tastes: Roadside signs coming to Bay Area listen to car radios, then adjust pitch](#)", San Francisco Chronicle, pp. A-1, December 22, 2002.

Signals:

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