

Customer Based Marketing

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Where do Our Library Customers Live (and Why Should We Care?)

The Old Days: Book Jackets with Your Name and Address

The public library where I registered for my first library card, was less than two miles from my parents home. I could get to the library on the bus, using a free token the city offered to children under 12. But my first visit was with my mother whose signature was required, in order for me to get my own library card. I remember that Saturday morning, the children's librarian beaming over my mother's shoulder--as I carefully signed my name and address, in my eight year old script, 'Christine M. Koontz, 1243 Monterey Street.' The round pencilled letters filled the card and drooped to the second line. I was issued my first library card, marked with a "J" for juvenile.

Thereafter, I signed my name and address on every card of every book I checked out. For an eight year old, that was a great deal of work to inscribe all that on a 3 x 5 inch card, especially when the norm was five or six books per week. The cards were also stamped with due dates, stuffed in small paper jackets, and pasted on back covers. You could always see who had checked out the book before you, and where they lived. Sometimes if I saw a friend's name--we would discuss the plot and ending! I was proud of the card with my name and address typed so neatly--Christine M. Koontz. It was my only card with my name

on it till I got a Master Card when I was nineteen! Aaaah--had the Master Card been as cheap!

But more than what the library card represented to me--it also was a great deal of information for the library. My library card combined with all the others, represented vital information about the library's customer market--addresses and ages. This information could identify the geographic area the library served, and the dispersion of adults and children within that geographic area. If viewed on a map, the spread of addresses could show the library staff how far away users lived from the library. And if all the branches in the library system plotted their users' address data on a county map--library management could see what areas were less or more served--and where there was overlap. Believe it or not, as simple as this seems, and all the information this method garners--most libraries did not map customer addresses in the 1950s and they do not today. There are two major reasons for this.

Library Service Areas vs. Geographic Market Areas

First, it is traditional for libraries to utilize the geographic boundaries of the library's major funding source to delineate their area of service. This is usually county or city limit boundaries. Sometimes public libraries use school district or multiple county boundaries. These areas are defined as public library legal service areas, by the Federal State Cooperative System of the National Center for Education Statistics which collects and publishes U.S. public library data.

In the U.S, over 80% of all public library funds come from local government coffers so this approach is not surprising. Funding is usually based

upon the number of people who pay taxes and live within that area. There are an estimated 16,000 public libraries in the U.S., and approximately 9,000 of these are library systems--meaning the library organization includes small and large branches that serve portions of a city or county. Library systems usually serve large dispersed populations. The other estimated 8,000 are single public library facilities that serve the entire county or city, usually small and rural populations.

To offer example, and for contrast--Los Angeles County Public Library (CA.) has 84 branches and three bookmobiles, serving a population of 3,500 million, covering 3,050 square miles, with a registration rate of 62.8% of population. Los Angeles County is the funder and legal service area boundary. Benicia Public Library (CA.) has one library facility that serves 28,700 people, covering 12.6 square miles, with a 70.6% registration rate. The City of Benicia is the funder and the city limits is the legal service area boundary. These are representative of the differences you can find amongst legal service areas in the U.S.

Secondly, it is traditional for libraries to protect information about users. Not only do they not plot user addresses for better information about geographic dispersion--but librarians historically have not divulged user characteristics (sex, race, ethnicity, age) or reading choices or volume of use. User records are held under great security by most librarians, who live up to the Library Bill of Rights (1948) that protects individual reader's privacy and freedom to read any material of their choosing. Recently privacy issues are even more critical with the burgeoning availability of digital access to not only cursory library user data, but

to social security numbers and mother's maiden names. Public libraries and other public institutions are becoming more belligerent in guarding customer data. In fact libraries guard what the private sector mines. Companies like American Express have customer demographics and buying habits cross hatched and dissected to develop more and better ways to help customers spend their money--with them. Libraries blithely ignore customer data--yet vie to serve all people even without knowing as much about them as we need to--even where they live? Are we helping our customers or hurting them with our ignorance?

This article is about accurate geographic customer market determination, why libraries need this information and how we can best go about it.

Most Successful 'Traveled-to' Organizations Know Where Customers Live

In today's world, estimating the geographic market area (that geographic area where actual and potential customers for specific goods and services live) is the first step in any type of successful location analysis for siting, closing or merging any type of 'traveled-to' facility (i.e., a library, McDonald's, the zoo, or a hardware store.) Remember people *choose* to spend their time travelling from their home to places to purchase or access services. It matters to customers how far they have to travel --and therefore, it matters to us, library professionals, where customers live and the possible distance they will be required to travel. People primarily travel by foot, bus, subway, or car. We know that the *average* library customer will not travel over two miles. So if 45% of the people in your legal service area do not live within two miles of a library facility--you may have problems--We also know from research that lower income people, who have

fewer transportation options, are also affected by distance. Library facilities need to be closer to certain populations to overcome the distance barrier. (Starting to catch my drift why we need to know where people live, and within what distance to our library facilities?)

This last factor, income levels, illustrates a second important reason for determining where people live. Without a geographic market area determination, you can not describe the characteristics of the people that live there. Such factors as age, income, education level, ethnicity, ownership of home, family status are all highly related to increased library use (Koontz 1997.) In the US we are fortunate to have U.S. Census data which is collected every ten years, that identifies these characteristics of people. And the data is available at no charge. For libraries serving changing populations with changing information needs, this user information is critical. While libraries rarely map customer data, they have in the past needed to ascribe service areas to branches. For point of discussion we will call these branch *market* areas, i.e., geographic areas where potential and actual branch library customers live. Next we will discuss why, when, and how, librarians do this.

Why have Librarians Needed to Determine Market Areas for Branches in the Past??

Librarians generally take steps to determine the geographic boundaries of branches when *reacting* to certain events. Examples of these events mostly include the need to open a new branch in a conserved area (it must be determined where service falls off at surrounding branches); close a branch

(which branches will be impacted that are nearby); project population growth in response to a governmental action such as passing of designated mileage for the library; dramatic changes in population (such as influx of non-English speaking population requiring new materials and services or alternative facilities); changes in topography (a highway built that delimits access to service); or new data indicates change in the use of the library extends beyond what the was the current understanding (such as people registered at other branches use this branch heavily due to proximity to workplace). While any or all of these may require an assessment of estimated geographic boundaries of branches--the most important aspect to consider is that all these events are *reactive* on library management's part rather than proactive. Let us quickly look at three traditional and known ways that librarians determine branch market areas. And then we will describe a proactive approach--you guessed it--plotting customer address data!

How Do Librarians Determine Branch Market Areas?

Three Traditional Ways: Experience, Established Government Geography, Estimated Radius

Experience. Reacting to any of the above events (and of course those unnamed) branch librarians can rely on gathering together and discussing the geographic boundaries of their particular branch. Their experience and knowledge of how far users come for services is invaluable. Maps on the table, librarians can join together and estimate where the average of service begins and ends. With no other data this will provide a basis for decision making. The weakness of this method is of course lack of hard data and the risk of exceptions.

Librarians can not possibly calculate the number of people actually using the library, or calculate changes over time, or count those who use the library but live outside the area without knowing where people live.

Established Governmental Geography. Many library systems assign census tracts to branch libraries. A census tract is approximately 5,000 to 8,000 people who live near each other and are somewhat homogeneous. The U.S. Census uses these standard census geographies to collect population data (such as age, income, etc.) as discussed earlier. This satisfies the often asked for criteria of an estimate of 'population served,' for a branch. This also alleviates the problem for the library of appearing not to offer service to any group of people in the legal service area. The weakness of course, is that people cross over census tract lines every day--and of course do not have any reason to go to a library within their ascribed census tract --unless they want to and can. This method does not provide a true picture of which library people use, and how far they actually travel to any library facility. It also indicates all people in the census tract have access to library service.

Estimated Radius. Many retail stores estimate their market areas by utilizing a radius. A radius provides a simple method that offers comparability. This is a method often used to determine an average population served. These population figures, as discussed earlier, are often needed for funding purposes, i.e., how much more should branch A serving 25,000 receive than branch B, serving 12,000? Some libraries around the country utilize a varying size radius approach. For example, a library system out west assigns a 1 mile radius for

branches in the urban areas, and 2 miles for those outside the urban area.

These radii are often determined in conjunction with local planning officials who provide estimates with local planning tools. The weakness of this approach is of course, that a radius plows through cemeteries, rivers and industrial parks, and often misses that type of use that may come from people who do not live in the 'averaged' area. Recently, I plotted customer address data for a library branch that used the radius approach. The 1.75 mile radius estimated the branch served a population of 746. The plotted customer address data, calculated 2,566. Need I say more?

Plotting User Address Data. As discussed earlier user address data was available early on. When I signed my name, 'Christine Miller Koontz, 1243 Monterey Street," the library had valuable customer data. Some librarians actually did ask library users to stick pins in maps posted by the library's back door, in order to see graphically where their customers live. Now libraries can take advantage of geographic information system software (GIS)¹ that handily plots any type of spatial data (data that can be zapped and pinpointed to the earth's surface, or sky for that matter!) Most local governments are already using GIS for planning facility distribution for police and fire, and emergency routing services. It is reasonable that libraries utilize GIS, and map where actual and potential library users live. Research indicates this method is successful (Koontz and Jue 1999) in determining true branch market areas. This user

¹ GIS is a collection of information technology, data, and procedures for collecting, storing, manipulating, analyzing and presenting maps and descriptive information about features that can be represented on maps.

address data can come from registration data or circulation data. Each has advantages and disadvantages in determining branch market areas.

The Advantages and Disadvantages of Using Registration and Circulation Data to Plot Branch Market Areas

The plotting of address data is *proactive* on library management's part. This method used in combination with the librarian's experience and an overlay of census tract information (user characteristics) will provide a rich and accurate picture of the area each branch library serves. There are some advantages and disadvantages of using registration or circulation data.

First let us discuss the advantages and disadvantages of plotting registration data.

Advantages to knowing where library users registered and where they live may include: knowledge of what distance people live from the library where they registered; identification of the user characteristics of these people; an estimate of whether the branch is convenient may be made by identifying accessible roads and bus lines, and possible foot travel; determine through library use statistics if the library has a special collection or service that originally drew the user there to register for library services. Disadvantages of using registration data to determine branch market areas may include: the user only registered at this branch and in reality uses other branches; the user only registered at this branch and never used any library branch again; the user submitted a post office address, rather than a street address and could not be geocoded (a small

pinpoint on a digital map indicating the address of a library user.) These examples are not meant to be exhaustive but rather thought provoking. Next we will discuss the advantages and disadvantages of plotting user circulation data.

Advantages of knowing which library people checked out materials from and where they live include: circulation data illustrates in part, which branch the person actually used and how far they live from this facility; determining if the library branch is utilized possibly despite cost of travel time or topographical boundaries (these would be identified when user address is graphically plotted); knowledge of whether the user lives within walking distance; identification of whether the branch may have a special collection or service that draws people from further away than a branch more close by.

Disadvantages of using circulation user address data includes the fact that: the data only reflect materials used that are checked out--the data does not reflect any in-house material use or other use of the facility; the user only checked out materials at this branch during the period of time the data was collected; the user only checked out materials at this branch during the data collection period and never used any library branch again; the user registered with only a post office address, rather than a street address and can not be geocoded. Again these examples are not exhaustive--but rather illustrative.

Using Circulation and Registration Data in Combination

Plotting user address registration data, and plotting user address

circulation data can offer a view of the gaps between where people sign up for service and which branches they actually use. This type of data collected over time, can offer the most accurate picture of where library customers live, how far they travel and how, and where potential customers live that do not use the library. Notice the choice of words--potential customers, as opposed to non-users. Until librarians proactively utilize customer data, perhaps starting with user address data, we can not possibly know what our customers need and want.

Customers have higher expectations--as we discussed in an earlier article. Library users have turned into customers and therefore, expect us to know a bit more about them--and to ask questions when we need to find out. Customers willingly give zip code and much more data to store clerks. Why wouldn't these same people, when acting as library customers, give their professional librarian the green light to utilize their address, know the distance they traveled to the library--or what mode of transportation they used? Especially when they know we are customer-centered and using the information to improve library services.

Barnes and Noble Bookstore is taking tips from the library field in product development i.e., collection development, offering not only books, but children's magazines, a/v materials, CDs and videos; their physical store layout largely emulates a library, with aisles of fiction, nonfiction, cookbooks, juvenile collections, poetry and travel; and oriented and well-trained booksellers appear to be the reference librarian of old. Can't we at least borrow their phrase "What is your zip code," to better determine where we think our customers come from?

I do not ride the bus to the library anymore. For sure I would not receive a free token at my ripe old age--but I can tell you that the library is welcome to plot my address, and stamp my card with "A" for adult, and use this vital customer data to improve library services--It seems a shame to leave such vital customer data to childhood memories.

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