Who's Out There? The Power of Spatial Data

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Library communities today are not just melting pots, they are rolling stews of people moving in and moving out. Sometimes it seems like our communities are changing almost as fast as technology! So how do we get a handle on serving that dynamic community? How can we identify the services they need if we don’t really know who they are?

The good news is that there are data and expertise out there to help a library understand more about the people living in the shifting neighborhoods that make up its service area. Using data in the library system combined with census data and other spatial data, a library can learn who is and who is not using the library. They can identify areas of growth and plan for a new library, and they can learn who lives in that growing area to ensure the collection and services reflect their needs.

Spatial data are any data that can be mapped to locations. Geographic information systems (GIS) and navigation systems like TomTom and Google Maps are commonly used examples of systems that rely on spatial data. The great thing about spatial data is that anything you can connect to a place becomes spatial data. There are thousands of data sets that do just that. Census data is one rich resource that provides demographic information like income, age, housing, education, race, spending habits, behaviors, and much more. And all these pieces of information can be associated with your own patrons. And, while you cannot look up the income, age, race or spending habits of an individual patron, you can learn these things about census blocks within your service area. This neighborhood-level information is called “market segmentation” data. You can also overlay transportation information, planning information, health information -- and any number of the thousands of data sets that exist -- to learn more about your service area.

For example, using census data and transportation data as well as your library data, you might find that there is a large pocket of low income people in an area that are not using your library and it’s probably because of the lack of public transportation options for them; getting a bookmobile out there or setting up some kind of 24-hour library or dispenser might be just the thing to make contact with these folks. Perhaps a new immigrant community has taken hold in one area of your county. Does the nearest branch to this new emerging population have the services they need as new immigrants? Does the collection have material in their native language? These are the things you can learn from spatial data … if you know how to use the tools and interpret all that data!

One company, Civic Technologies, has been doing just that. They’ve been providing library services around spatial data analysis for over ten
years. I must have seen one of the first presenta-
tions they ever gave at a library conference be-
cause it was that long ago. It blew my
mind. The concept is so powerful and yet so
simple: if you can map information to a location
(e.g. latitude and longitude), you can learn
things – a lot of things. And these things can
help you make better decisions. In 2011, Gina
Milsap wrote an excellent article for InfoToday
describing how she used market segmentation
data in the formulation of their strategic plan
(http://www.tscpl.org/wp-
know she still relies on that data in her excellent
work at Topeka and Shawnee County in Kansas.

For many years, the folks at Civic Technolo-
gies were the only game in town. I think there
was a kind of aversion to it on privacy protec-
tion grounds. Did it feel like snooping on our
patrons? Or maybe it was just a technology that
was too complicated for many of us to grasp,
but now that we rely on our phones to tell us
about everything around us, we've let go of
some of our privacy concerns in favor of the
convenience of finding the nearest Starbucks.
Making use of spatial data has been slowly
catching on in libraries. Now Civic Technolo-
gies has competition from Orange
Boy and Gale. Even Esri, the biggest player in
all things GIS, now markets to libraries.

So, before you take another strategic step, con-
sider investing in spatial data. Learn what there
is to know about the world around you – one
latitudinal step at a time.