

PERSONA-RELEVANT INTERNET ACCESS IN CHICAGO

BACKGROUND

Internet access is increasingly important in modern life for all people, not just those who own their own computers and can pay for their own internet access. Important roles served by the internet include:

- News & civic participation
- Social and cultural inclusion
- Economic opportunities
- Educational attainment

The bottom line is that in the information age, access to one of the primary sources of information is critical for political, economic, and social equality. It is for these reasons that studying the digital divide – unequal access to technology, particularly to computers and the internet – is so important. The purpose of these studies is to determine how current policy is succeeding, failing, or both, and to influence improvements.

This particular study applies a walking distance to the locations of public internet access providers in Chicago to determine what percentage of Chicago's residential areas can quickly and easily access these locations. This study also identifies different personas who have different internet resources available to them, and assesses these specialized resources separately. This is because not all public internet locations are appropriate for all members of the public; while some locations (like public libraries) may be available for everyone others (like youth centers) might not be. The personas identified in this study are:

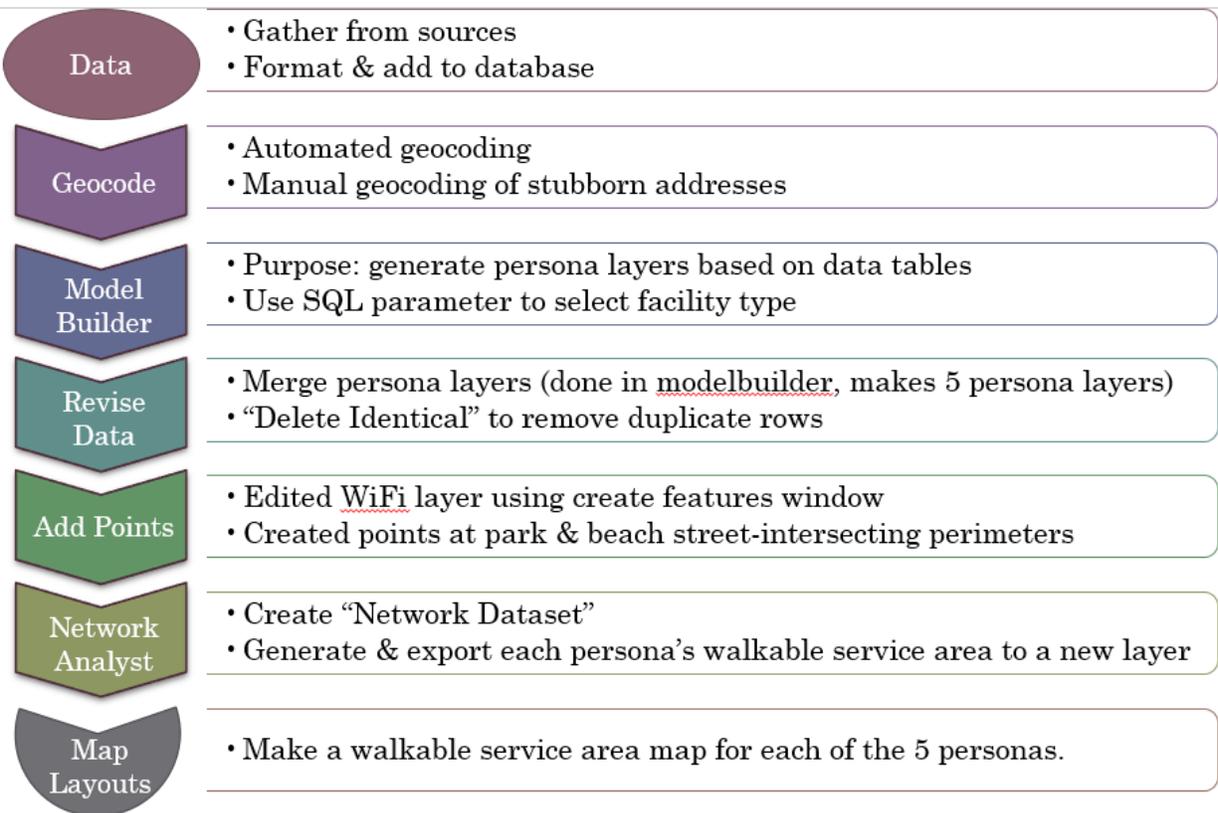
- Basic Public Use (BPU): Libraries and community centers, which are available to all

- Senior Citizens: Senior Centers, which are only for use by the elderly. In addition, BPU can be included in this category, because senior citizens may also use those resources.
- Youth: Youth centers, but not colleges, were included in this study because colleges generally require one to be a student there, and are not necessarily available to any unaffiliated youths. BPU is also included in this persona profile study, since all young people are welcome at those facilities.
- Job Seekers: Employment centers are great resources, but they restrict the purpose of internet use, so these locations are unhelpful for anyone with other internet agendas. Job seekers may also work in BPU locations.
- WiFi Seekers: WiFi hotspots are available at many, but not all BPU and other specialized computer/internet labs. WiFi is also available at a handful of public parks and beaches. As a result, the WiFi layer is different from all other layers, and I have included all specialized computer/internet labs in this layer for simplicity's sake, though each Persona's WiFi access could be determined in future research. The reason for separating WiFi out from the other personas is because WiFi users must provide their own laptop/tablet/smartphone, and this requirement is beyond the means of some people in the digital divide. Even so, some people may own computers but not have the money to pay for their own internet account, so they may be dependent on public internet locations to access the internet.

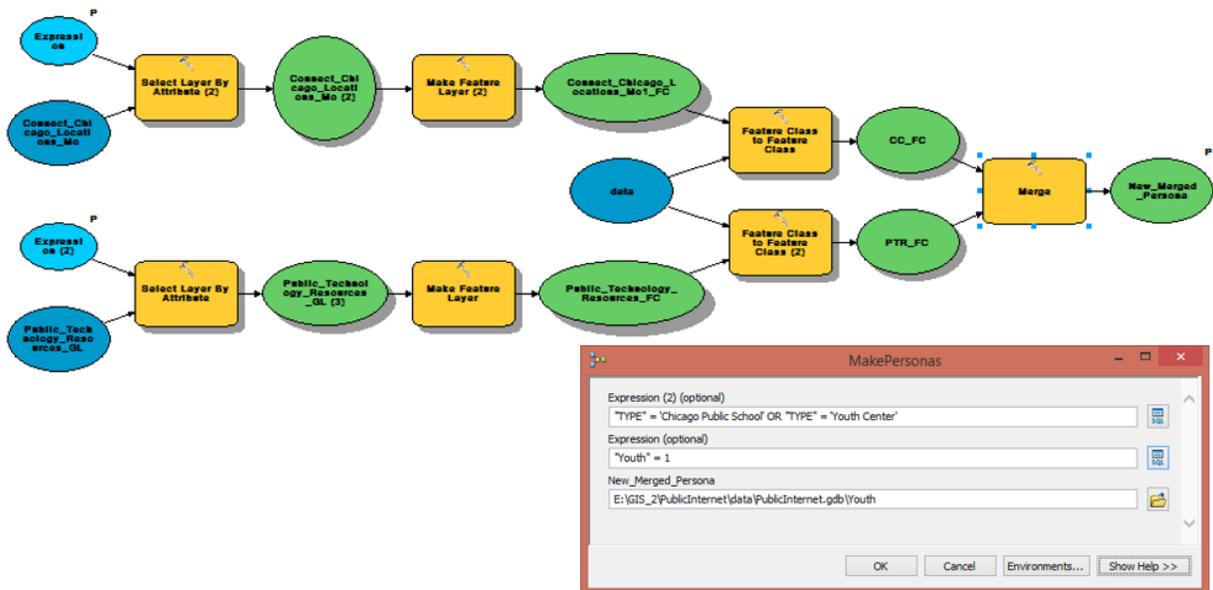
PROCESS

The data for this study came mostly from the City of Chicago's Data Portal. These include the city's street centerlines (a shapefile), "public technology resources" (a spreadsheet), "Connect Chicago locations (a spreadsheet), parks (a shapefile), and zoning (a shapefile). Additional sources included two articles about public places in Chicago with WiFi hotspots: Chicago Launches Free WiFi at Five city Beaches (Huffington Post), and the "South Shore Cultural Center, Garfield Park to get Free WiFi" (Chicago Tribune).

Once I had this data, I followed the following process:



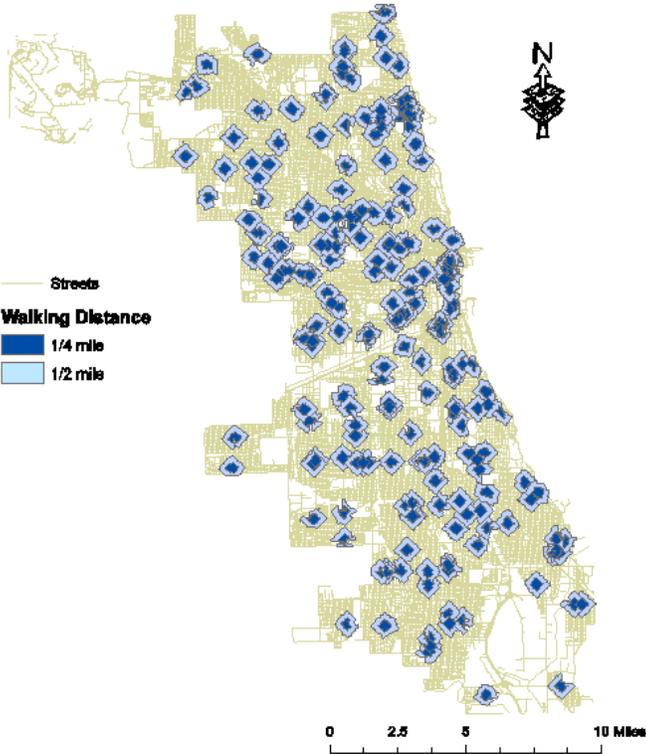
These map layouts are shown in the results section. The ModelBuilder tool used and mentioned above is:



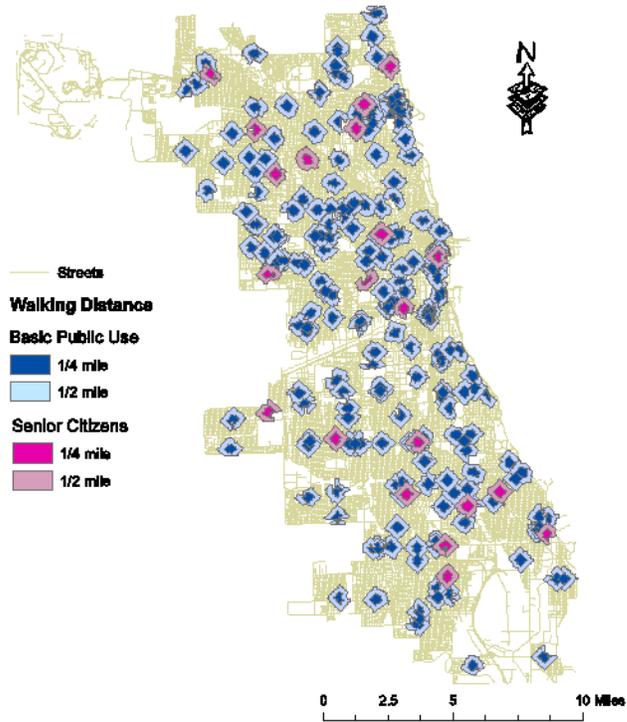
After creating maps of 1/2 and 1/4 mile walking distances around each persona-relevant internet access point, I was encouraged to bring in a zoning layer and select just the residential areas to use as an area comparison point for the 1/4 mile walking areas to quantify how much access there really is. This was accomplished after numerous uses of the export data option, and the intersect and dissolve tools. Finally the total area of each 1/4 mile walking distance for all persona-relevant layers was calculated, and can be seen in the table in the results section.

RESULTS

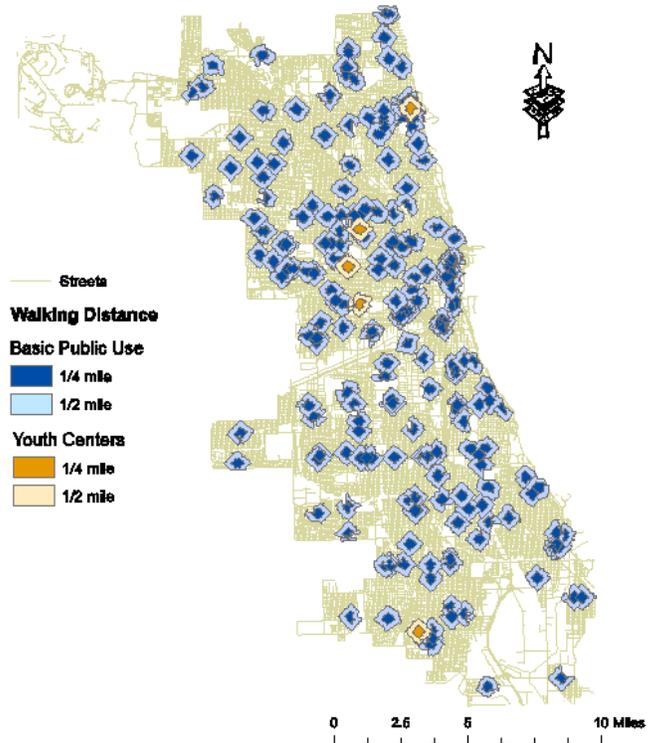
Walkable Basic Public Use (BPU) Networks



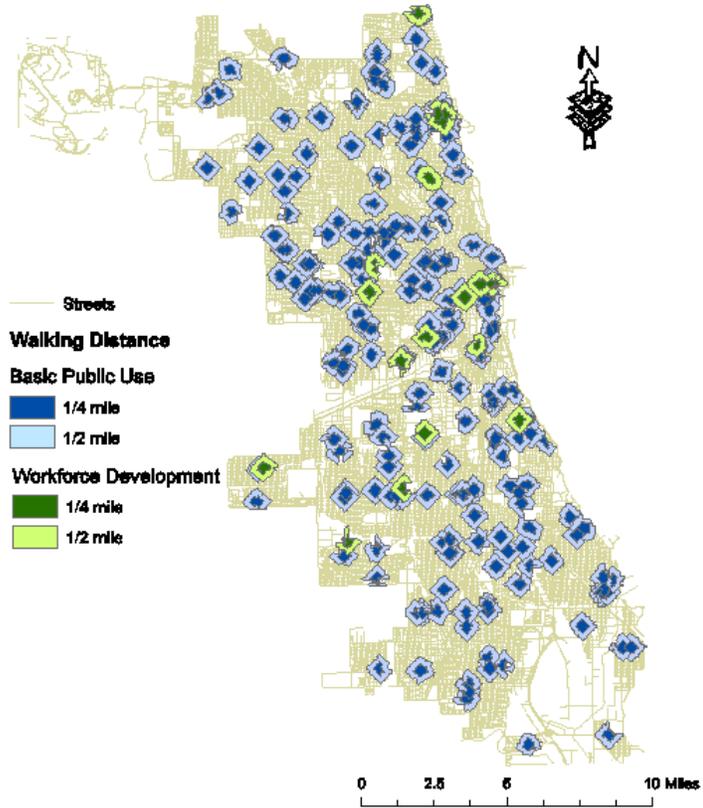
Walkable BPU + Senior Citizen Oriented Networks



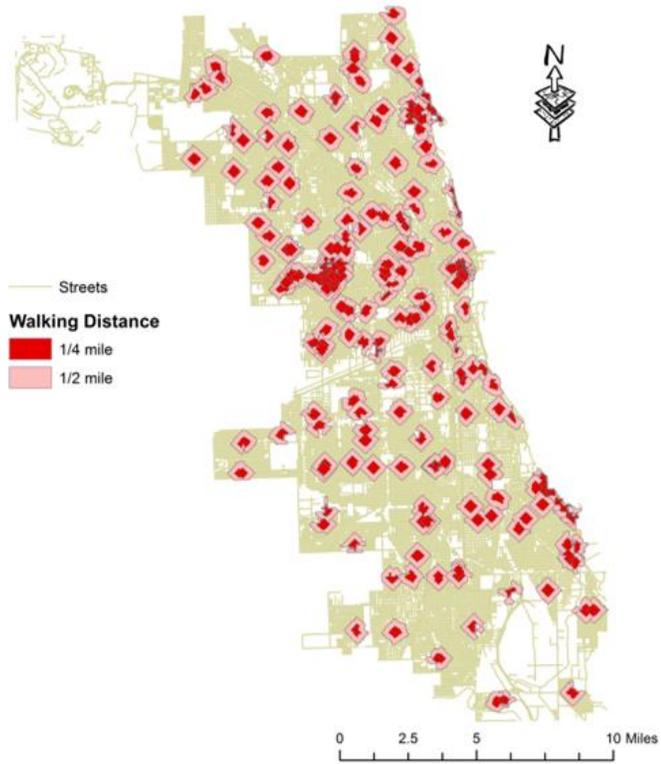
Walkable BPU + Youth Oriented Networks



Walkable BPU + Workforce Development Networks



Walkable WiFi Networks



Persona	Percent of Chicago's Residential Area Covered (1/4 mile)
Basic Public Use	11.04%
Senior Citizens	11.99%
Youth	11.27%
Job Seekers	11.38%
WiFi Seekers	9.99%

Note that the residential area included in this calculated area excludes Chicago's downtown zones.

CONCLUDING REMARKS

- I didn't include community colleges, cafes, and many other institutions that offer internet access as a secondary purpose in this study. Future studies could incorporate them.
- Some places limit computer time per user, restricting the internet access of patrons.
- Some BPU locations have persona-specific workshops, these are not shown in maps, but would provide additional insights in future studies.
- Data from the Data Portal may be incomplete. Some locations may have closed, opened, or not be listed.
- A comparison to community area poverty rate could be helpful in future.

Public internet locations are not ubiquitous in Chicago, but since their walkable coverage of the city's residential areas hovers around 10% for all personas, there is still many improvements which could be made. Additional locations would improve access, and by studying the persona layers it is easy to determine where special needs are and aren't being met. For example, the city's south side lacks youth centers and employment related centers, who types of institutions which could really help in neighborhoods that struggle with gang violence and low employment rates. With more studies like this one, hopefully future public internet locations will be sited to better meet the needs of communities.