case study:

SmartChoices

In order to best outline the process by which an opportunity for a useful community-based mashup is discovered, I will track the development of the SmartChoices website, a project by Trinity College's *Cities, Suburbs, and Schools Project*, led by Professor Jack Dougherty, and ConnCAN (Connecticut Coalition for Achievement Now), a local nonprofit organization dedicated to bridging the racial and socioeconomic "achievement gap" in Connecticut's public schools.

DEFINING A NEED Hartford, Connecticut, advertised as "New England's Rising Star" is the state's poorest city and home to many of Connecticut's lowest performing schools (Simpson, 2008). In 2007, Hartford's Board of Education approved school superintendent Steven Adamowski's proposal for a city-wide "All-Choice" program, designed in an effort to overhaul Hartford's school system and boost student achievement in the city schools (Leavenworth, 2008). According to Adamowski's plan, beginning with the 2009-2010 school year, families with children in transitional grades would be required to submit applications specifying their top three school selections for the upcoming academic year. ConnCAN further explained the plan's rationale on their website:

> *Hartford's initiative encourages school improvement by allowing parents to pick from public schools throughout the city for children who are starting elementary school or being promoted to secondary school. The size of Hartford school budgets will be determined by the number of students the schools attract annually. Popular schools will be able to grow to accommodate demand, while less popular schools will shrink or close based on parents' decisions.*

> (ConnCAN, 2009)

However, many Hartford parents found this new policy confusing, as they were being asked to make important decisions for their children about schools that they knew very little about.

Additionally, the application process itself was overwhelming for many parents. *Hartford Courant* writer Jodie Mozdzer summarized her observations of the implementation of this "School Choice" system in her September 2008 article "School 'Choice' Dismays Some; City Outlines New Program." In the article, Mozdzer describes parents' confusion and, in some cases, disappointment in the new program, which some had hoped would allow their children to more easily enroll in schools *outside* of Hartford. She explained, "The new process could mean more paperwork for parents who aren't sure whether they want their children to attend a public school or magnet school. To place a student at a magnet school in the city, parents will have to fill out a separate application through the Regional School Choice Office." Mozdzer adds, "If [parents] don't send in an application, the students will get a 'deferred placement' in one of the schools with the lowest demand from students" (Mozdzer, 2008).

Research shows that allowing for school choice in this way is most effective in increasing student performance, particularly for disadvantaged students, if parents don't have easy access to information on schools' performances on which to base their decisions (Hastings & Weinstein, 2008). So in order to decrease the number of students whose parents do not send in an application on their behalf, thus placing them in the least sought-after schools, Hartford parents needed a good way to obtain reliable information on the schools available to their children.

Jack Dougherty, Associate Professor and Director of Educational Studies at Trinity College, first began communicating with members of ConnCAN in August of 2008 about working on a project of common interest. Marc Porter Magee, ConnCAN's Chief Operating Officer, and Tori Truscheit, ConnCAN's Research and Policy Manager, explained to Dougherty the pressing need for some kind of handout to distribute to parents in the upcoming months to prepare them for the changes in Hartford's school system.

The question that Dougherty and the members of ConnCAN were left with was, what kind of resource do Hartford parents need in order to facilitate educated school choice decisions?

In her 2007 article "Space and Place: Urban Parents' Geographical Preferences for Schools," author Courtney Bell explains that only between 1 and 3 percent of the 3.5 million parents entitled to switch their children out of failing schools (under the No Child Left Behind Act of 2001) actually do so. She summarizes past research that attempts to explain why so many parents do not choose better performing schools for their children when given the option:

> *Scholars explain why parents choose failing schools in at least*
> *two ways. The first type of explanation focuses on the sub-*

optimal nature of parents' decisions. For example, some scholars argue that urban parents, many of whom are single mothers, don't have time to adequately research choice options and thus are under-informed… Others point to parents who are uninterested in their children's education or make decisions that are somewhat less than "rational…". The second type of explanation focuses on market imperfections. There is not enough high-quality information…, there are not enough schools to choose from…, or there is not adequate transportation available to parents. (Bell, 2007)

The rest of Bell's article, however, focuses on an overlooked contributor to parents' school choice decisions: geography. Based on her research, Bell deduced three diverse ways in which geography affects parents' decisions.

1. The school's distance from home: Parents consider the necessary logistics of sending their children to a particular school, such as whether or not they can easily get them there and back every day, or if adequate transportation is provided.

2. The school's "place": Parents consider what kind of neighborhood the school is in, what other people send their children to the school, and the school's overall environment.

3. The school's attachment to "resources": Parents consider the ways in which sending their children to a school requires utilizing resources, particularly social ones, such as assistance from friends or family members. For example, a school's location might require setting up a carpool or asking a friend to pick up the child every day after school.

BRAINSTORMING A SOLUTION So what kind of resource did parents need that would "counteract" the problems Bell describes associated with parents' school-choice decisions? I joined the team of individuals from Trinity College and ConnCAN as they began to brainstorm a solution to this question as a "participant observer," offering my knowledge of intuitive data representation design for the creation of a simple and informative tool. As a group, we recognized that this meant providing parents with something that gave them accurate information on school performance in a way that was simple and quick and that all parents could make sense of. Furthermore, we knew that we needed to design something that would spark parents' interest in selecting schools for their children. We would also need to be sure to advertise the many schools available for parents to choose from. And, perhaps most importantly, we needed to incorporate elements of geography into the data we provided,

showing parents where schools were located relative to their homes and what neighborhoods surrounded them.

Professor Dougherty recognized that this necessary information would not fit on a handout alone. He pushed for the creation of a digital resource for parents, which would supply them with as much pertinent information as possible. However, whether or not parents would be able to access an online, digital resource was an important consideration. In the City of Hartford, 28.2 percent of families live below the poverty level, 33.5 percent of residents aged 25 and older have never completed high school, and 45.4 percent speak a language other than English at home. The table at right compares Hartford's statistics to those of the entire United States. These demographics were important to consider when setting out to create a tool for Hartford parents to utilize when making school selections.

Estimated Demographics for Hartford and the United States

	Hartford	United States
Families below the poverty level	28%	10%
Graduated from High School (aged 25+)	34%	84%
Speak a language other than English at home	45%	19%
Have access to the Internet at home	30%	62%

Sources: (U.S. Census Bureau, 2005-2007 American Community Survey, 2005-2007), (U.S. Census Bureau, Census 2000, 2000), (Millman, 2008), (U.S. Census Bureau, 2005-2007 American Community Survey, 2005-2007).

Two logical concerns arose: How do we ensure the intended audience is able to access this tool, and how do we certify that the website is usable by individuals with different degrees of computer literacy?

These questions, and many others, are what I will be addressing throughout this paper. The development of the SmartChoices website is an ideal example of a mashup created with the needs of a community in mind. As I will explain, not only does SmartChoices function as a tool that integrates information from multiple sources for the sake of sharing helpful information with the community, but the data it displays also makes a point on its own, in some instances indicating a need for change.