



CREATING SOLUTIONS FOR REAL PEOPLE THROUGH CIVIC DATA

PRESENTED BY



NATIONAL DAY OF CIVIC HACKING THE ASSIGNMENT

Civic Hacking is about collaborating with others to create, build and invent to address challenges relevant to our neighborhoods, our cities, our states and country. It's about making Big Data relevant to the lives of everyday people. The following persona and scenario provide an example of how to design a challenge that does just that.

It starts with defining a problem, understanding the needs and challenges of an individual or community. It's about taking some time to contemplate the concerns of citizens and then looking for the kinds of data that can help. .

We have found in running numerous Civic Hacking events that designing for real people and real problems can assist Civic Hackers in building solutions that resonate. It focuses the team on human needs.

The data and technology that can help address that need comes next. Civic Hackers have the skills and web literacy necessary to find the right data. The real task is for them to use their technical and design chops to then wrangle it into a form that everyday people – *the non-digerati* – find useful, usable and desirable

So, go forth and solve a problem people care about. We hope these materials help.



PERSONAL PROFILE

Median Household Income: \$17,970

In need of income support and is under the poverty line

My morning is hectic. I travel from NYC to Connecticut for my job, so every morning, I need to figure out who's going to pick up my daughter because after-school programs all close at 6:30 pm before I get back home. Her dad used to pick her but he has a new job with on-call hours. I don't know what I'll do. I have to call around to friends who I don't like taking care of my daughter. It's hard to find someone I can trust.

"That one hour in picking her up is crucial to me."

You have to do so much research to find good after-school programs and it's hard to get your kid in. The city is cutting programs, and you don't know when they're open and take applications. I had to go to the park everyday at 3pm to submit this form for my daughter to take ballet classes and I had to hound the lady every day.

"So difficult in terms of the cost of living and I always feel like I am in a catch 22 situation. I want to provide my kids a good future but it is so hard on my salary and they keep cutting the free programs in my community."



There are multiple child care and after school programs available in the city, but accessing them, affording them and fitting them into Ms. Sedgewick's hectic schedule can be difficult. Take a moment to learn about some of the challenges Ms. Sedgewick faces in finding childcare. Think about how you could tailor a solution that turns data about multiple schedules, locations, availability and program information into useful options.

NEEDS & CHALLENGES

AFTER SCHOOL

You have to do A LOT of research to find good programs that are affordable. And then you have to wait a long time and keep applying and going back to make sure your child gets in

Can't tell what's most affordable

COMMUNITY PROGRAMS

I talk to my friends to find out what the best programs are

Don't know of good programs

GOVERNMENT PROGRAMS

The city is cutting programs that take care of my daughter 'till 6. I couldn't go to work if that happened. I literally don't know what I would do without them.

Hard to find programs that fit her schedule needs

CHILDCARE

I need someone to take care of my kids until I can get home from work. So I have to find friends or family to help. It's hard to find someone I can trust.

Finding trusted service providers

LOW COST PROGRAMS

The keep cutting the free programs in our area. They're not getting funding anymore.

Limited options, funding support



MS. SEDGWICK

There are many publicly available data sources that contain information relevant to Ms. Sedgwick and the aspirations that she has for her children. Finding relevant information is the challenge. With some savvy searching and clever coding find open data resources that be turned into a valuable resource for Ms. Sedgwick. Many of these options have Open APIs for data access and discovery.

The screenshot shows the NYC Department of Education website. The main navigation includes 'Parents and Families', 'Students', 'Employees', and 'Community and Partners'. Under 'Tasks, Units & Student Work', there are filters for 'Keywords (optional)', 'Grade (select at least one)', and 'Subject (select one)'. The 'Grade' filter is expanded to show options from Pre-K to 12th Grade, with '6th Grade' selected. The search results display two items: 'Grade 6 Math: Ratios and Proportional Relationships' and 'Grade 6 Math: Ratio Reasoning', both with PDF icons.

The screenshot shows the Khan Academy website. The main navigation includes 'LEARN', 'COACH', 'ABOUT', and 'DONATE'. The 'MATH' section is highlighted, and the 'Arithmetic and pre-algebra' course is featured. The course description states: 'The first math topic. Start here if you want to learn the basics (or just want to make sure you know these topics). After this, you should be ready for algebra. This topic includes videos from the former developmental math playlists.' On the right, there are four course cards: 'Addition and subtraction', 'Multiplication and division', 'Factors and multiples', and 'Negative numbers and absolute value', each with a star rating and a plus icon.

The screenshot shows the GreatSchools website. The main navigation includes 'Find a School', 'Review Your School', 'Preschool', 'Elementary School', 'Middle School', 'High School', and 'College'. The 'Find a School' section is active, showing a search bar for 'Schools' and a dropdown for 'State'. A sidebar menu is open, listing categories like 'Parenting Dilemmas', 'Health & Behavior', 'Learning Difficulties', and 'Successful Students'. The main content area features a 'Start here: Find a school' section with a search bar and a 'Search for schools near an address' section with a dropdown for 'Show me: Elementary schools' and a 'GO' button.

The screenshot shows the NYC Department of Youth & Community Development website. The main navigation includes 'Residents', 'Business', 'Visitors', 'Government', and 'Office of the Mayor'. The 'DYCD Programs' section is active, showing a search bar and a dropdown for 'Afterschool Programs'. The search results are displayed as a list of programs, with '6' and 'Bronx' selected. A 'Submit' button is visible. The search results are titled 'Search Results for "Afterschool Programs" and "6" and "Bronx"'. The website also features a 'TRANSLATE' button, 'EMAIL A FRIEND', 'SIGN-UP', 'TEXT SIZE' options, and a 'PRINTER FRIENDLY' button.

PERSONAL NEEDS + PUBLIC DATA = VALUE

Here's a Civic Hack that attempts to help. EduHack uses Ms. Sedgwick's personal data about her child's grade level, school and interests to sort out what after-school programs are available in the area that may be of interest. It also pulls up Khan Academy online lessons that map to her child's grade. This is just one example. By combining Ms. Sedgwick's personal needs with the vast array of data resources out there, we can sort through all the information and provide her with a personalized view of the resources available.

The EduHack website features a search interface with the following elements:

- Buttons: "Find After School Programs", "Maximize Learning", "Find The Best Schools"
- Form fields: "Grade: 6" and "Subject: Mathematics" with a "SEARCH" button.
- Search results list:
 - Mixed numbers and improper fractions
 - Comparing improper fractions and mixed numbers
 - Converting Mixed Numbers to Improper Fractions
 - Changing a Mixed Number to an Improper Fraction
 - Changing an Improper Fraction to a Mixed Number
 - Adding Fractions with Like Denominators
 - Subtracting Fractions
 - Adding Fractions with Unlike Denominators

The video displays a math problem: "Add. Simplify the answer." with the equation $\frac{3}{15} + \frac{7}{15} = \frac{3+7}{15} = \frac{10}{15} = \frac{10 \div 5}{15 \div 5} = \frac{2}{3}$. Below the equation is a number line with 10 equal segments, where the first 2 segments are shaded red and the remaining 8 segments are shaded green.

The GreatSchools website displays a profile for "Bronx Charter School for Excellence" with the following details:

- Rating: 10 out of 10
- Charter school, K-6, 439 students
- Address: 1960 Benedict Ave, Bronx, NY 10452
- Phone: (718) 628-7301
- Website: Click here
- Nearby homes for sale
- Test scores: New York State Assessments Results for Grade 3, English Language Arts, 2012 score 98% (vs 2011 score 85%).

The Kips Bay Boys & Girls Club website features a navigation menu and a "Find a Program" section:

- Navigation: Home, Who We Are, Club Houses, Fund Raising, Programs, News & Media, Contact Us
- "Find a Program" filters: Sort By: Select Clubhouse, Program: Select A Program
- Program listings:
 - Partners in Reading**: A Board of Education sponsored tutorial reading program for first through third grade. This program takes place Tue - Thu from 3:30 p.m. - 5:30 p.m.
 - Power Hour**: A comprehensive homework help and tutoring program which is designed to...
- Logos: Yankees, NEW YORK DESIGN

Community Services

	Community Services		
	General	Volunteer	Private Resources
Federal	data.gov	volunteering	findthedata.org
	Community Services	-	
NYC	community	volunteering	-
	job related	-	-
Las Vegas	general	volunteering	NonProfits
	public records		foundations yellow pages
			CommunityGuide



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