Module 4: Human-Centered Design

Welcome!

In our last module, we talked about defining actionable and specific problems and the importance of doing so in consultation with those most affected by them.

Today we tackle human-centered design (also known as design thinking) -- a structured set of methods and tools -- for consulting with citizens -- the target audience for our policy or service -- in order to arrive at innovative solutions that truly respond to people's needs.

Take the example of California's food stamp program. While the state allowed people to apply online, that application was 50 web pages long with over 100 questions.

Most families who started the process would end up abandoning it.

By using human-centered design or HCD, namely analyzing the process from the perspective of the person using it -- the NGO Code for America was able to reduce the time it takes to complete the application to less than 10 minutes, substantially increasing enrollment.

HCD involves using ethnographic and qualitative research techniques like listening, observing and interviewing to connect with people as part of an iterative problem-solving process.

Let's get started.

By the time you finish this module you will:

1. Understand the principles of human-centered design and how they can be used in the public sector to define your problem.
2. Understand why it is important to place residents at the center of your work, and
3. Have an introductory knowledge of methods for using human-centered design in practice.

As public officials, we are seldom solving our own problems. We cannot always know what it is like to live with a disease, traffic or discrimination in a given community.

Yet we bear responsibility for ameliorating life for our communities, including those with whom we share little in common.

Thus, design thinking intentionally add a step in between the articulation of the problem and the declaration of the solution that forces us as public entrepreneurs to pause, at least to empathize and, hopefully, to talk with the public we are trying to assist.

Such practices of discovery and evidence gathering lead to a refinement of an ill-defined problem and the development of potential solutions, informed by learnings from real people in the field.

Especially in this day and age of rampant inequality, incorporating more participatory methods of problem solving -- doing things with people rather than for them -- is essential for boosting the legitimacy as well as the effectiveness of how we solve problems.

And social psychology research also shows that when employees seek to benefit others and consider others' perspectives, we are likely to be more creative problem solvers who develop ideas that are both novel and useful.

Design thinking refers to a process in which the problem solver seeks to understand the point of view of the person for whom she is solving a problem.

It also describes specific methods and tools. Some of these involve strategies for empathizing with the affected citizens while others are more active and include interviewing and talking to humans to obtain and validate evidence about the real nature of the problem to solve.

This kind of social research with individuals represents a major complement to cost-benefit approaches that seek to evaluate a program at a macro-level.

To take another example of using human-centered design in practice, take the work of the UK NHS to reduce childhood obesity, The NHS complemented their data analysis of the problem. They talked to local communities to discuss the problem and then collaboratively design ideas that could reduce obesity, conducted rapid pilots of those ideas, and helped to develop initiatives into socially and financially sustainable programs using facilitation and moderation of citizen engagement.

So how do you put human-centered design into practice? How do we use it to test our assumptions about the definition of our problem in the real world with real people?

There are many practical strategies for ethnographic research.

Many of them call for the designer to "empathize" with the subject by putting oneself in someone else's shoes.

Many designers create personas – or fictional archetypes of the people who will be affected.

Others call for observing human behavior, the way an anthropologist studies people in their own environments.

Since we are focused on active strategies of engagement that help to build the legitimacy as well as the effectiveness of problem solving, we focus on those methods that involve talking to actual humans online and off.

Observing people, while often imperative, by itself misses out on the wisdom and insight people can share.

Talking about fictional personas or archetypes can result in missing important categories of relevant people to consult, such as university experts, anchor businesses, philanthropies, or local government agencies who have important information to share.

Qualitative social research has always involved speaking with people, usually in the form of an interview or a survey. The digital age creates opportunities for talking to more people, more quickly and in new ways than before.

Let's work through four exercises that show you how.

First, let's develop our plan of attack for our research. Don't worry about taking notes. We provide a worksheet with a template for developing this plan on the website.

- Project goals –What do you need to know? How can ethnography help you to learn that? What kinds of things do you want to ask or observe to confirm the problem and its root causes?
- Research and sampling design –Who needs to be interviewed or observed? What different types of individuals need to participate to get a well-rounded view? Remember that the goal of ethnographic research is not to predict behavior, so you do not need a particularly large nor even a random sample. Ideally, you will keep observing or interviewing until you are no longer surprised by what you learn.
- Interview and observation guide –What do you want to ask and observe to learn about the problem? What do you want the participant to show you? What activity do you want him or to undertake? Do you want to take pictures? What tools can you use to gather information? Write down a series of questions and activities to last about one hour. Some of these might involve direct questions and others simply silent observation.
- Recruiting participants – If you are focusing on face-to-face recipients of a government service, you might go to the office where they receive that service. Third-parties, such as interest groups and industry associations who regularly convene their members or have membership lists that you might use to find your participants.
- Conducting the research – How will you gain the participant's trust? What will you ask the participant to accomplish? How will you explain the purpose and obtain consent from the participant? Coming up with ice breakers ahead of time can be useful, along with a written description of the research to share with participants to obtain their consent.
- Collecting and documenting -You will need to be equipped to gather data. Tools might include the obvious choices of a notebook or a laptop, but also a digital pen that automatically transcribes your notes, a digital camera, and an audio recorder or phone, as well as assorted programs for managing and later sorting observations, such as Google Keep or Evernote.
- Drawing insights and analysis – Throughout the process, endeavor to summarize and unify your observations.
- Developing recommendations - In the end, your analysis is not designed to answer the question "What happened?" but "So what?" Drawing those conclusions and using them to rewrite your problem definition.

Second, we need to start by identifying what kinds of people to talk with to gather evidence about the problem. Which communities, organizations, and individuals have the know-how to define the problem statement?

Here are some options:

Residents - These are the inhabitants of the neighborhoods who are or will be affected by the problem, and whose expertise is rooted in the experience of living in the community. The experience of residents is particularly important for defining and prioritizing problems and their buy-in can help to ensure that solutions will have maximum impact.

So, consider what residents might be affected, those who are longer- and shorter-term residents as well as those of differing economic class, gender, race and ethnicity and sexuality.

Domain Experts - Tapping into domain experts' knowledge can accelerate the ideation process and deepen our understanding of the problem.

Sociologists, anthropologists, urban planners and political scientists often have the know how about communities and their residents. Depending on the nature of the problem, technologists, designers and data scientists might be of greater relevance. And there are also subject-specific experts depending on the problem. Experts can be found in many places and turning to local universities for help is one way to find them.

Non-Profits - Non-governmental organizations and not-for-profits are a distinct source of know how. Some organizations may already be working directly in the problem area and consulting with them might accelerate our understanding of the problem. They may also have direct relationships with the residents you want to reach and help to accelerate outreach.

Criteria by which you might segment NGOs include: Economic Development, Legal, Workforce Training, Research/Academia, Environmental, Health, Human Rights, State, City, Charitable and Faith-Based.

Community-Based Organizations -These are nonprofit organizations that work in specific communities. They can offer a deep understanding of small geographic areas and may have ties to people that are difficult to access, such as transient residents, ex-offenders, or undocumented immigrants.

Business and Industry - Many policies and services affect the businesses that create jobs and drive economic growth in a community. The relevant audience could be owners, managers or employees, depending on the issue.

Also, businesses employ people with domain knowledge that may be of great use. Enlightened companies will also share an interest in the well-being of the communities in which they are located or sell to, and involving them might help to bring more resources to bear on a problem.

"Anchor Institutions" -These are institutions or businesses that play such an outsized role in the affected community's economy that they deserve their own category. Policies that affect them will, in turn, impact residents and other businesses who service them. Examples of anchor institutions are the major business in a company town or a university in a campus town, libraries, museums or churches or key non-profits like a hospital.

Governmental Entities and their Employees - Public officials often have the knowledge of constraints that help to determine feasible and impactful projects as well as an understanding of how to translate solutions into policy.

You should consider how public officials at each level of government might help you. This includes elected and appointed officials and their staff, and civil servants in executive, legislative or judicial organisations and public officials from other places who have worked on the same problem.

Philanthropy -These are foundations and charities that have an interest in funding responses to the problem at issue.

They often possess deep expertise about the project and have a good overview of who is doing what in the same space. They can also provide additional resources to fund solutions and they may be willing to be more experimental. This group may include people such as religious leaders and corporate social responsibility officers from the private sector.

Using this guide, brainstorm who needs to be asked. Make sure to include diverse kinds of people, focusing in particular on those least likely to have been heard. Make sure you are hearing all viewpoints.

Once we've identified who we're going to talk to, we need to think about how and why we're going to engage them.

For this exercise, let's start with specific strategies for interviewing people.

When conducting interviews, we first want to prepare our list of questions and test these on a few people before adopting our interview guide widely. This will help us understand what may not be clear to people and which questions elicit the most useful responses.

Use a combination of short and long answer formats and follow yes/no questions with questions about why people have that view, asking them for an example or story to illustrate.

We want to be sure to tell people how we plan to use the information that they share with us. People are more likely to give their time if they know their input will be relevant and have an impact on decision making.

One further practical strategy to complement interviewing is service blueprinting, also known as journey mapping.

Service blueprinting involves developing a step by step rundown of a process. In the public sector context, this refers specifically to documenting how a government service is delivered or how a policy works in practice.

While there is no rigid definition, journey mapping frequently is used to capture the experience from the individual citizen perspective whereas service blueprinting documents the process from the institutional perspective.

This method, especially when done in collaboration with affected citizens and civil servants, can help with laying bare “just how complex and uncomfortable the customer experience” is and how much it deviates from expectations.

Five years ago, my co-author and I documented the pathway of a nonprofit tax return from filing through processing by the IRS. It was only in doing so that we discovered that the IRS was taking electronically filed returns, printing them out, and scanning them back in, thereby rendering a useful digital file into a useless image. Revealing this almost-unbelievable inefficiency played a part in an eventually decision by the IRS to digitize all nonprofit tax returns, and in a law from Congress mandating electronic filing.

To create a process map of the service experience, use interviews and surveys of individuals and groups to record:

1. Citizen actions: The steps that must be taken in chronological order to receive the service.
2. Public servant actions: The steps that must be taken in chronological order to receive the service
3. Face-to-face contact: Note any live interactions that are part of that process.
4. Virtual contact: Note any phone calls or web-based interactions that need to take place.
5. Support processes: Additional interactions, including interaction with anyone who is not a contact employee but is necessary for the service to be provided.
6. Conditions: Describe the conditions under which the service is provided. This might be the physical condition of the office, for example.

Use this map or blueprint to find the points of failure and engage in preemptive problem solving.

Want to leverage new technology to ask more people what they think the problems are? Or to help identify root causes? Consider using a wiki-survey.

Designed by Princeton sociology Professor Matt Salganik, the free All Our Ideas wiki-survey tool (https://www.allourideas.org/) allows anyone to create a collaborative survey at no cost to learn which problems people feel are most salient or to suggest alternative problems and root causes.

Wiki surveys combine the advantages of closed- and open-ended questions. The tool was originally called “which do you want more?” because it presents the viewer with a choice between two responses (or “I can’t decide”). Respondents receive exactly two randomly generated options from which to choose. Users can respond to as many questions as they would like or stop at any time. The user can also select “View Results” to see how other participants are voting, with scores for each question and data visualizations.

Participants can submit their own contribution, such as an additional root cause or problem statement, using 140 characters or less, and submit as many ideas as they choose. When an idea is submitted, it is reviewed by the creator of the survey to monitor for appropriateness, and if it is approved, the idea will start appearing as an answer choice under the corresponding question.

As more people complete the two-response surveys, the tool evaluates and compares ideas and allows new ideas to bubble up, so that the results accurately reflect collective wisdom. All Our Ideas has been used for over 14,000 wiki survey mechanisms.

Of course, All Our Ideas is far from the only choice of tool. There are numerous commercial options also available for getting input from people about the problem, such as AI-based tools like Remesh or Pol.is. Or you can also create your own survey.

By trying some or all of the four methods we've just run through, you will have tested your understanding of the problem with people in a real world context - a prerequisite for developing meaningful solutions.

It's important to point out, however, that despite the rapid rise in popularity of human-centered approaches, these design strategies should be complemented by other forms of evidence-gathering - especially the use of data-driven analysis to gain insight into a situation. That's the subject of our next module.