



Thick Data Primer

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Employment and
Social Development Canada

Emploi et
Développement social Canada



Overview

Thick, or small data is human-scale data, collected from small samples in everyday contexts, making visible the motivations, values, preferences, perceptions, and environments of people often left out of public consultations or large-scale datasets.

Drawing on anthropologist Clifford Geertz's phrase *thick description*, small or thick data can contextualize behaviour; it's able to convey something as subtle as the difference between a wink and a blink. Where a blink is the involuntary movement of an eyelid, a wink, in Western culture, is an intentional contraction: a greeting communicating affection or humor.

Data that can explore behaviours and intentions, within the places and spaces people live their lives, is data that can help to inform how to frame public policy problems, and how to identify leverage points and attractive interventions – all from the perspective of people on the ground.

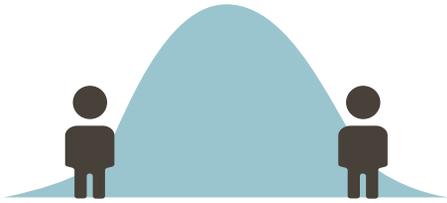


Watch an introduction to design ethnography by InWithForward

Advantages

Thick data can complement other data sources, enabling policymakers to drill beneath high-level quantitative trends to understand the everyday realities of social problems.

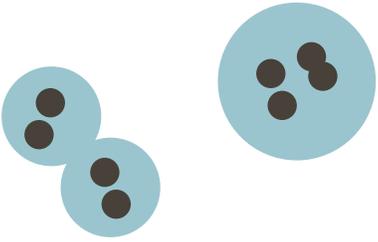
Thick data can help close the gap



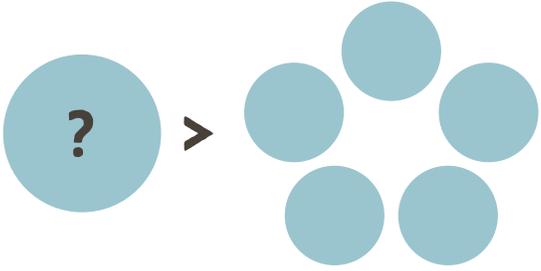
Finds people left out of traditional research



Gets underneath disconnections



Disaggregates to show what works for whom

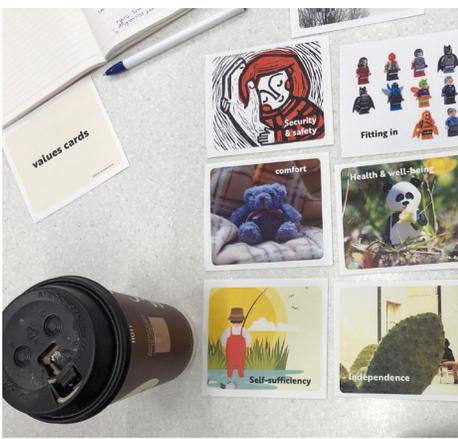


Explores features of problem AND solutions

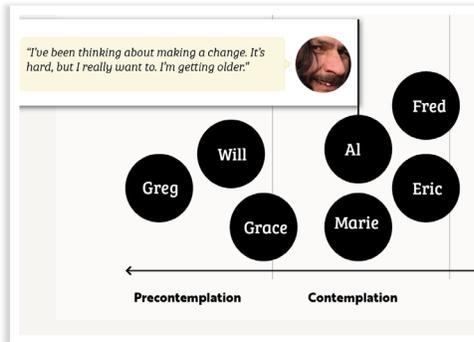
Thick data...



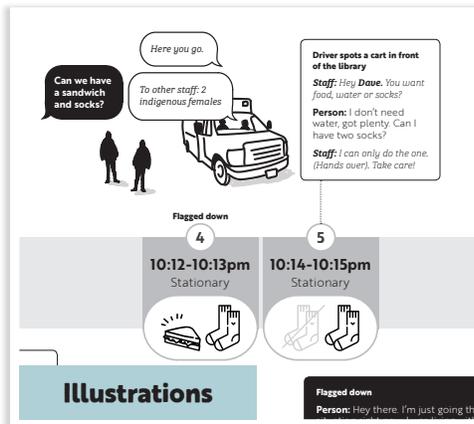
Finds people left out of traditional research because it happens in context, where people are spending time already, on their terms. Thick data collection looks like observation, shadowing, and conversations over the course of a day and/or multiple visits. *It is not* surveys, structured interviews, or focus groups that ask people to come to a particular space and respond to pre-determined questions. Researchers focus on people at either end of the bell curve: those who are struggling and either avoiding services or over-utilizing services, as well as those who share the same environmental “risk-factors” as the first groups, but are doing surprisingly well. These are the *positive deviants*, whose own resiliencies and work-arounds sheds insight into features of the solution space.



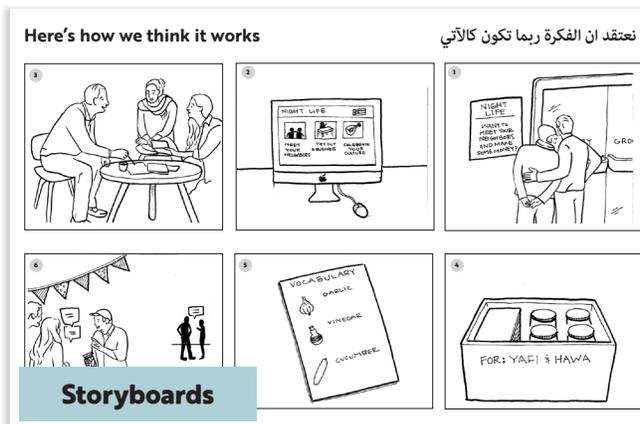
Gets underneath disconnects to understand gaps and contradictions between what people say, do, and aspire to, or dream. These disconnects are fertile starting points for imagining what *could be* different, and understanding what policy responses and interventions might be attractive and effective.



Disaggregates to show what works for whom. In design research, populations are *segmented* by motivations, values, barriers, or other criteria that determine how they might interact with a service, because no single service can serve everybody well the same way. Thick data provides ways to group and sort people beyond demographic features like gender, age, or diagnosis. With greater granularity and detail, thick data suggests when, where, why, and how different segments would be most likely to engage with a service or offering.



Explores features of a problem and solutions. By spending time with people across contexts researchers are able to see what and whom people do engage with, even if they avoid services. By paying attention to routines, relationships, preferred settings, and how moods and behaviours change across settings, researchers gain clues into the nature of future services and supports. Indeed, thick data surfaces the features of positive services and supports, as well as negative ones, in order to flesh out detailed scenarios of *what could be*. This generative inquiry typically results in a range of visual research products including illustrations, storyboards and journey maps, describing possible futures.



Limitations

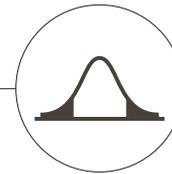
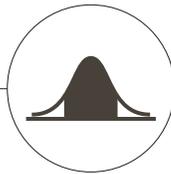
Thick data offers policymakers a distinct form of intelligence, drawn from lived experience and practical know-how. Because policymaking has long been steeped within positivist frameworks, reliant on generalizable knowledge for decision-making, thick data can be minimized as “anecdotal,” “unrepresentative” and “unreliable.”

Treating thick data as a legitimate source of knowledge requires recognizing there are multiple ways of knowing about the world. Alongside generalizable knowledge, there are Ancestral and Indigenous ways of knowing, experiential ways of knowing, spiritual/natural ways of knowing, and artistic or designerly ways of knowing (Elissa Sloane Perry and Aja Couchois Duncan, [Nonprofit Quarterly](#)). Design Educator Nigel Cross explains that while controlled experiments and randomized control trials are appropriate methods in the sciences, they are inherently limiting to humanities and design, where analogy, metaphor, modelling, pattern-formation and synthesis can help to grapple with human complexity and future uncertainty.

Rooted within a *non-empirical* world view, thick data recasts validity as a multi-dimensional construct, focused on the integrity of data collection and use. Rather than see small sample sizes as a liability, thick data presents an opportunity to do focused work in communities that are typically left out, marginalized, or misunderstood.

While thick data is especially well suited to help parse through wicked social policy problems – the kind of problems that are multifaceted, historically rooted, entangled in culture, relationships and behaviour – it is especially ill suited to solve technical, efficiency-based problems. Thick data, on its own, is also insufficient. Because it is resource intensive to collect and process, thick data best serves as a complement to a range of data sources: historical analysis, literature reviews, psychosocial theory, wider stakeholder engagement, and quantitative trends.

Given thick data draws from both ethnography and design traditions, it can be difficult to commission in Canada, where design research and applied ethnography are still gaining a foothold. Also, the compressed time frames of many policy development processes may not accommodate thick data. To be done well, design researchers need at least a month on-the-ground in each community to build relationships, observe, and make sense of the data. In historically marginalized communities, more time and flexibility can be necessary to forge trust. Without the conditions in place to amend time frames or typical processes (from ethics to payments of honorariums), thick data collection risks straining community relationships.



	Traditional empirical/ positivist approach	Alternative constructivist/ participatory approach
Representativeness	A sample that accurately reflects the larger population	A sample that reflects the hard-to-reach and marginalized
Validity	<ul style="list-style-type: none">• Internal validity: the results can be replicated; they are reliable• External validity: the results accurately measure what they intend to	<ul style="list-style-type: none">• Democratic validity: stakeholders engage locally• Catalytic validity: engaging in the research prompts personal insight & change• Dialogic validity: the results spark deep & critical discussion• Outcome validity: the results prompt action <p><i>(Kathryn Herr and Gary Anderson)</i></p>

Policy opportunity

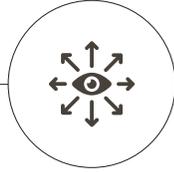
While most traditional policymaking processes engage citizens once a problem has been identified and policy options are on the table, thick data collection is a citizen engagement strategy that can be used to find and frame problems, as well as generate policy options. Here's how it can be integrated, alongside hard and big data, throughout a policy development process

	 Hard and big data	 Thick and small data
Problem identification	Spot trends, patterns, and deviations from norms	Understand local perceptions, drivers and needs
Policy formulation	<ul style="list-style-type: none"> • Predict behaviour • Model scenarios 	<ul style="list-style-type: none"> • Meaningfully engage hard-to-reach people • Generate ideas
Policy adoption & implementation	Contribute to compliance and standardization	Contribute to contextual adaptations
Policy evaluation	Determine efficiency and effectiveness	Examine what effectiveness means for whom, under what conditions

Considerations

Thick data, as described here, blends social science and design research traditions with a good dose of grassroots community development practice. While it draws on approaches from anthropology and user interaction design, thick data collection typically unfolds over weeks and months (not years, as is the case in academic ethnography) and introduces visual provocations to spark deeper conversations.

Unlike user interaction design, thick data focuses on people’s offline and online worlds, and digs into people’s values and aspirations, not just their engagement with digital tools and mock-ups.

	 Community Outreach	 Ethnography & Phenomenology
Contribution to thick data	Creative ways to find and engage hard-to-reach communities	Unpacks socio-cultural context for decisions & behaviours
Dark side to be aware of...	Can paternalize people	Can exploit culture
Tactics to draw on...	Makes use of campaigns, pop-up marketing, networking	Makes use of observation, interviews, narrative
Helps to...	Intervene in the present	Deeply understand past and present

Further sources

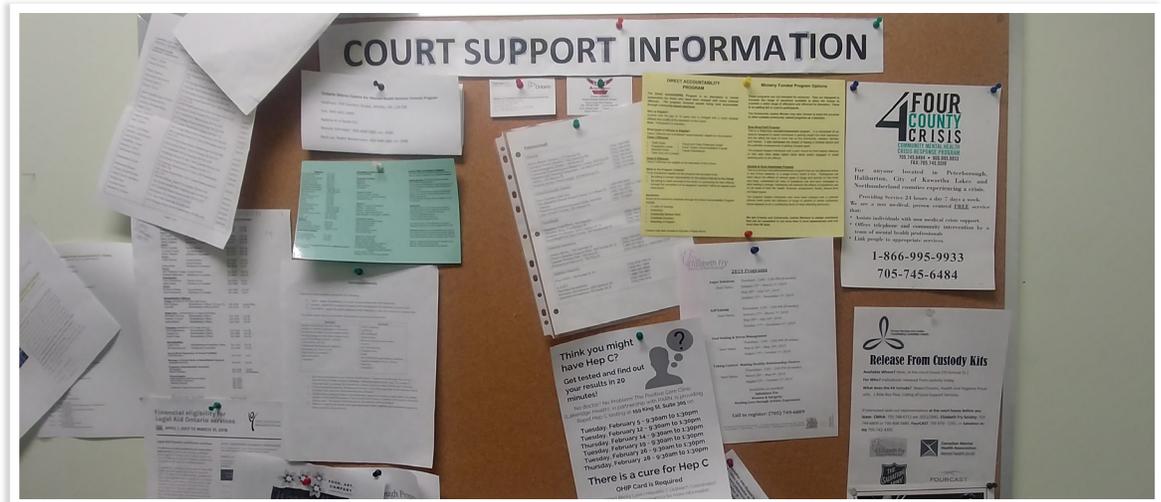
- *Small Data* by Martin Lindstrom, 2016.
- *Service Innovation Handbook* by Lucy Kimbell, 2015.
- *Designerly Ways of Knowing* by Nigel Cross, 1982.
- *The Human Insights Missing from Big Data* by Tricia Wang, TedxTalk, 2016.
- *Ethnographic Research: A Key to Strategy* by Ken Anderson, Harvard Business Review, 2009.

 Participatory Action Research	 Design
Work with communities to jointly inquire, learn and return data	Explores what could be, speculates on possible futures (what people don't know to ask for)
Can tokenize people	Can commodify people
Makes use of political, education	Makes use of visuals, provocations, and participatory prototypes
Critique the present, look to the future	Build the future

Government of Canada

Case studies

In 2019, the **Ministry of Justice** sought to better understand the lived experience of Indigenous people going through the Gladue process in Ontario. Over a month of on-the-ground research, a team of three ethnographers and a designer met and followed ten individuals involved in the criminal justice system, and produced a set of shareable stories, insights, and opportunity areas, all summarized in a freely available webinar.



In 2018, **IRCC's Social Innovation Branch** partnered with Ontario's College for Art and Design to bring design research into the fold. Students interviewed newcomers to Canada and developed a range of visual insights and products including journey maps, personas, empathy maps, and stakeholder maps. These artifacts have helped to inform internal and external stakeholder engagement.

In 2016, **Canada's Revenue Agency** hired its first ethnographers to do research on the experience of small business owners navigating the maze of tax rules and requirements. For instance, ethnographers visited Kensington Market in Toronto to see and hear the everyday realities of new and old businesses. This data helped to surface challenges and inform how information is communicated.



What other jurisdictions are doing

The United Kingdom's Policy Lab, situated within Westminster, includes a team of inhouse ethnographers and designers, deployed to work on strategic challenges. In 2015, the Policy Lab convened ethnographers and design researchers to make the case for thick and small data in government. The proceedings can be [found online](#). A number of other jurisdictions, including New Zealand and Australia, have set-up similar innovation labs in state and central government departments, where thick data is part of their repertoires (see, for example, [The Auckland Codesign Lab](#) and [Victoria Health](#)).

Best in class examples

The authors of this brief, InWithForward, specialize in thick data collection and use. [InWithForward](#) is a social design organization in Canada which works in and with marginalized communities to capture their stories, co-create, and implement new kinds of social support models. Over the last three years, InWithForward has listened to and written-up 550 stories of people living with addictions, mental health challenges, homelessness, disability, social isolation, and economic precariousness.

[Revealing Reality](#) is a UK-based ethnography agency specializing in community research. They work with businesses and public sector organizations to recruit community members, and collect a range of qualitative data, including thick data.

[The Public Policy Lab](#) in the US works with state and municipal government departments to do qualitative, design research including journey maps and personas on topics like prison reform, school transit, and health information.



www.inwithforward.com