

## DESIGN THINKING FOR REGULATORY POLICY, PART I

By Jordan Max

IN THE FIRST segment of this two-part series, I'll explore a relatively new policy tool—design thinking. The second part will focus on how design thinking can be applied to the public sector, government operations and policy-making. I'll also explain why we chose to pioneer practitioner-centred research in Ontario's professions regulator sector. (See November/December 2015, p. 25)

One of the new qualitative policy tools gaining increasing traction is design thinking methodology. Sometimes referred to as human-centred design, it is a fusion of analytical and intuitive approaches to complex problem solving. Design thinking originated with architects, urban planners and engineers as a method of “creative action.” It was first adapted for business purposes by David M. Kelley, who founded design consultancy IDEO in San Francisco in 1991 (Brown). Richard Buchanan's 1992 article, “Wicked Problems in Design Thinking,” expressed a broader view of design thinking as addressing intractable human concerns through design (Buchanan).

Since then, design thinking has been growing in popularity, application, scope and effectiveness. It has been used successfully by such companies as 3M, Apple, Coca-Cola, Deloitte, Disney, Ford, GE, Google, IBM, Intuit, Herman-Miller, Newell Rubbermaid, Nike, Pfizer, Pixar, P&G, Stanley Black & Decker, Starbucks and Starwood. A design thinking culture enables these companies, year after year, to design innovative new products, services or processes, or to improve existing ones, by understanding how their target users experience them.

### WHAT IS DESIGN THINKING?

The key features that distinguish design thinking are that it's:

- human (customer/client/patient)-centred;
- collaborative, participatory and interdisciplinary;
- iterative, with quick prototyping, validating and refinement informed by immediate participant and user feedback and discussion;
- interactive, time-bound, and dynamic (one to three days' duration); and

- visual, kinetic and experiential (using sketching, role playing, storyboards, modelling, etc.).

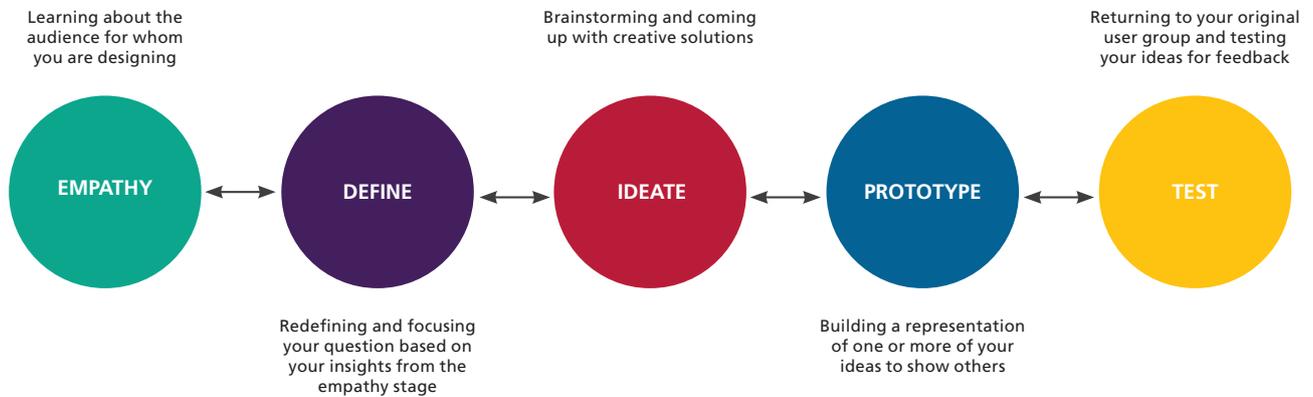
For those schooled in an analytical and logical approach to problem solving, involving gathering and boiling data, locking yourself in a room or lab to come up with a “eureka!” solution and hoping that it works, design thinking is quite different. Similar approaches are used in Agile software development. While there are many variations, it basically involves a five-step process, as illustrated in the diagram.

Design thinking starts with a challenge, typically prefaced by “How might we...?” questions. It's important that the question be open-ended enough to avoid solution bias, and including such constraints as time, price or other measures helps to unleash creativity among participants. One other thing of note is that the process is not always sequential and linear; sometimes insights and questions require taking a step back to validate or change earlier conclusions.

This five-stage process can be accomplished in a concerted two-day period, although it can be broken up where necessary to get additional information or to create working prototypes. What's more important is that individuals from across the organization participate in this exercise, bringing different vantage points, perspectives, skills and experience. The exercise also streamlines implementation planning by doing the up-front, integrated design work.

**Empathy**—Identify our current or potential users, and engage in research to explore the thoughts, feelings, frustrations, joys, motivations, etc., that are part of their interaction with the organization. This research makes use of interviews, observations, diary/journals, shadowing and focus groups. Findings are combined, examined for commonalities and differences, and different subpopulations are determined. There are two outputs to this phase. The first is personas, or composites of the subpopulations most relevant to the challenge, complete with a fictitious name, age and other relevant factors, and accompanied by a summary of that persona's unique interests, feelings, experiences, frustrations, etc. This is used to shape the other output: customer journey maps, which are documented diagrams of each persona's interaction with the organization throughout the life cycle of the product or service, starting from initial interest and moving through the purchase, use, customer support, referrals and future purchase stages. At each interaction point of the journey map, frustrations, or “pain points,” are identified, as well as any positive surprises, or “pleasure points.” The documentation of a journey map can take many forms (visual charts, storyboards, videos, skits, etc.), but it's important to focus on the individual(s) at the centre of the process, not on the process itself.

**Define**—Redefine and focus the initial question, based on the insights, personas and journey maps discovered in the previous phase, into actionable problems. Key personas, “pain points” and “pleasure points” in the journey maps are prioritized, and new challenges are identified, again using “How might we...?” questions. Prioritization is based on an organization's perceived value of addressing the questions.



**Ideate**—The rapid generation of ideas that answer the “How might we...?” questions. The key is to build on others’ ideas, and explore alternatives and hybrids from other contexts or organizations (e.g. How would Google or Apple solve this problem?). The wilder the ideas, the better. When at least 50 different ideas have been generated, the group stops. Concept ideas are then clustered and placed into a 2 x 2 matrix of impact versus effort, which is used to identify the priorities through participant votes.

**Prototype**—Rapidly building idea concepts, incorporating as many of the selected clusters as desirable, then seeking feedback from the users and team. These prototypes are intentionally crude, and can be built cheaply using everyday objects. It is helpful to describe the prototype to others and how it might work. The feedback on what works, what doesn’t, and what needs to be tweaked or changed is incorporated into subsequent versions, to the point where a working prototype can be built.

**Test**—Use and feedback of the working prototype(s) are sought from users in real time. Inevitably, further refinements are incorporated into the final product, process or service.

### ADVANTAGES AND DISADVANTAGES OF DESIGN THINKING

Some of the key advantages of design thinking are that it:

- provides fresh insights and innovation, particularly on pervasive and “wicked” problems, by delving into root causes;
- combines both analytical (left brain) and creative (right brain) skills, using lateral thinking and association;
- provides holistic understanding across an organization and faster operationalization, since this is done at the front end;
- enables quicker fails and rapid ideation with minimal investment of resources; and
- provides actionable, tested solutions to validated user problems.

There are, of course, some disadvantages with design thinking:

- To be successful, it needs a corporate culture of innovation, creativity and healthy criticism, otherwise it runs the risk of being just another “flavour of the month” management tool;
- Since the majority of professionals are better at optimizing (25 per cent) and implementing (44 per cent) solutions than in generating (17 per cent) and conceptualizing (20 per cent) problems

(Basadur), design thinking requires outside facilitators to get it started and internal champions to sustain its use;

- It takes more time than traditional market research or data mining, involves more people at the front end, and timelines are less predictable than purely analytical methods;
- It embraces uncertainty, which may threaten the purely analytical types who want replicable processes and outcomes;
- The user-centred focus challenges existing organizational structure, processes and biases, which will be threatening for some participants;
- It takes time and patience to master the process;
- It is not a panacea for all of an organization’s woes and challenges; and
- There are legitimate reasons not to focus exclusively on users, whether for public safety reasons or because it may stifle creativity.

### FURTHER READING

The following resources about design thinking may be helpful:

- *A More Beautiful Question*, by Warren Berger;
- *Change by Design*, by Tim Brown;
- *Creative Confidence*, by Tom Kelley;
- Design Thinking Documentary (video);
- FastCo Design Thinking (blog);
- [www.dmi.org](http://www.dmi.org) (articles, videos, slides); and
- [www.ideo.com](http://www.ideo.com) and [www.ideo.com](http://www.ideo.com) (tools and case studies). Σ

### REFERENCES

- Basadur, Min. “Action plan implementation: Overcoming the bottlenecks,” webinar, <http://web.basadur.com/webinars/action-plan-implementation-overcoming-the-bottlenecks>.
- Brown, Tim. “The Making of a Design Thinker,” *Metropolis*, October 2009, pp. 60-62.
- Buchanan, Richard. “Wicked Problems in Design Thinking,” *Design Issues*, Vol. 8, No. 2, Spring 1992.

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