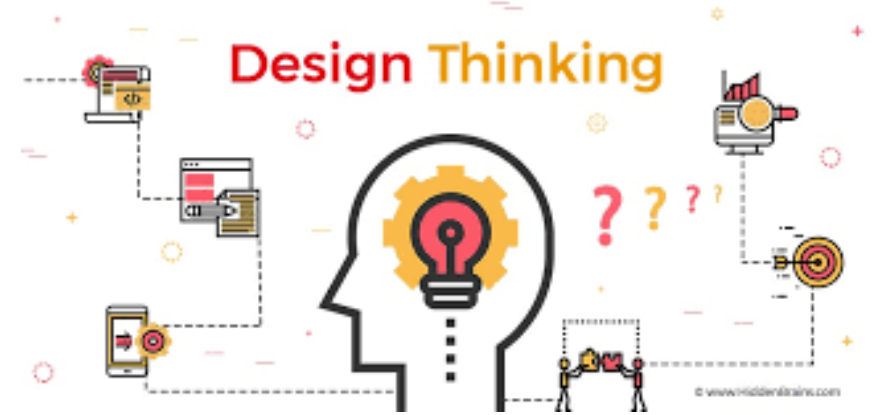# New Thinking Skills:
Design Thinking and Agile

Session 4

Table of Content

- What is design thinking?

- Why is it necessary? – Changing policy environment & complexity

- How do design thinking skills help better government services?

- What is agile? And how do we use it?

Design Thinking
# (Public Service Design)

An iterative process in which we seek to understand the user (customer, citizen), challenge assumptions, and redefine problems to identify alternative strategies and solutions. Now popular in the public sector as well.

✓ Developed in industrial psychology → redefine a problem and design creative solution. Challenge to existing solutions.

✓ **Let 'users' design**: Policy design by those who are influenced by public policies.

✓ Useful when problems are ill-defined or unknown: human(user)-centered, creative, problem-solving oriented approach.

✓ If successful – **meet citizens' needs, effective service delivery, save cost (learn from failure), creative solutions.**

Developed in Private Sector but now it's getting popular

- Developed in private sector (IDEO, Stanford Design School, etc.) but now popular in public sector as well. Why?

  - Increased inter-connection and diffusion.
  - No longer depends on well-defined, discrete territorial and jurisdictional system of governance.
  - No longer effective top-down problem-solving
  - Increased complexity ('wicked problem'): e.g. climate change
  - Blurred governance (numerous stakeholders, interests, citizens)
  - Declined trust in government
  - Design became – 'strategic' → linked to innovation, creativity
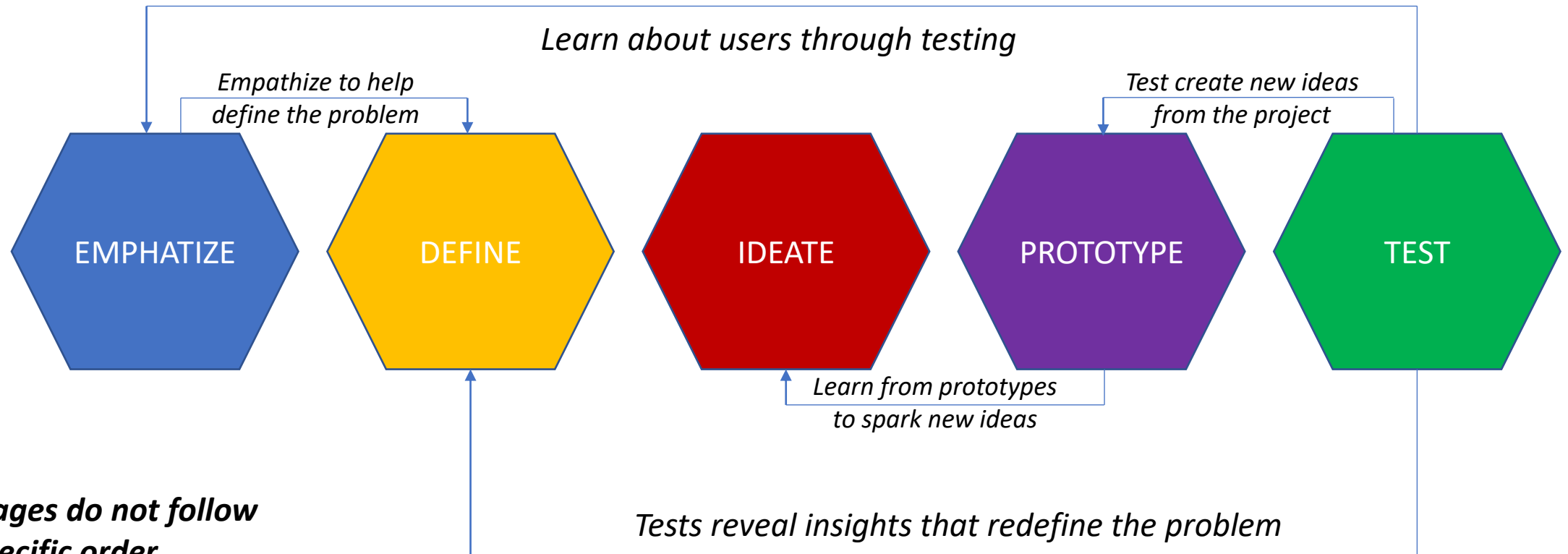
If Successful: Benefits
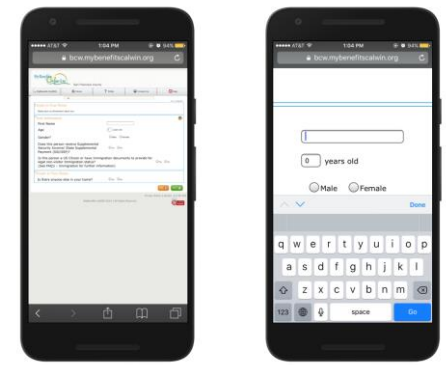
- Improve (public and private) service delivery: much deeper understanding of the needs the recipient of government services.

- Eliminate potential barriers to accessing and using government programs (e.g. California's food stamp program).

- Eliminate programs solving the wrong or unexciting problem.

- Save large upfront costs, through rapid prototyping, iteration, and testing (c.f. waterfall approach): quick feedback from users and decrease the costs and the risk of failure.

- Build capacity and work across silos.
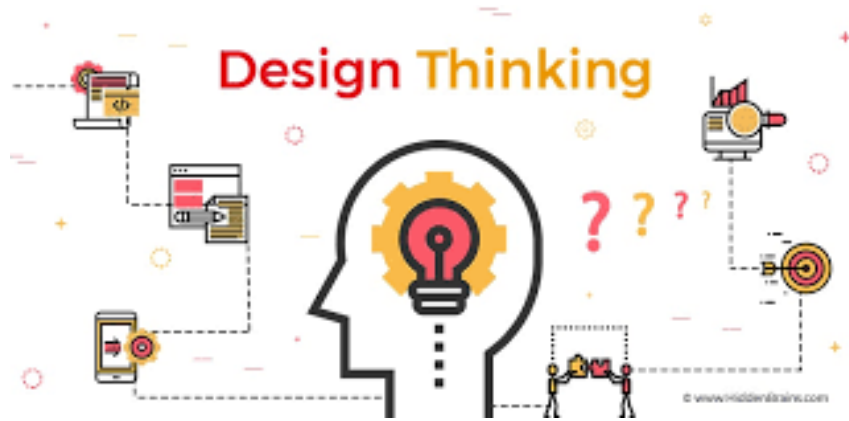
Design Thinking

How to Do Design Thinking in Practice?

Design Thinking Process

- Developed by Stanford University Design School and IDEO – mostly widely used design thinking process model. This is a **non-linear** process.

Learn about users through testing

Empathize to help define the problem

Test create new ideas from the project

EMPHATIZE

DEFINE

IDEATE

PROTOTYPE

TEST

Learn from prototypes to spark new ideas

Tests reveal insights that redefine the problem

The stages do not follow any specific order

Identifying (Understanding) 'Needs'

Explicit Needs
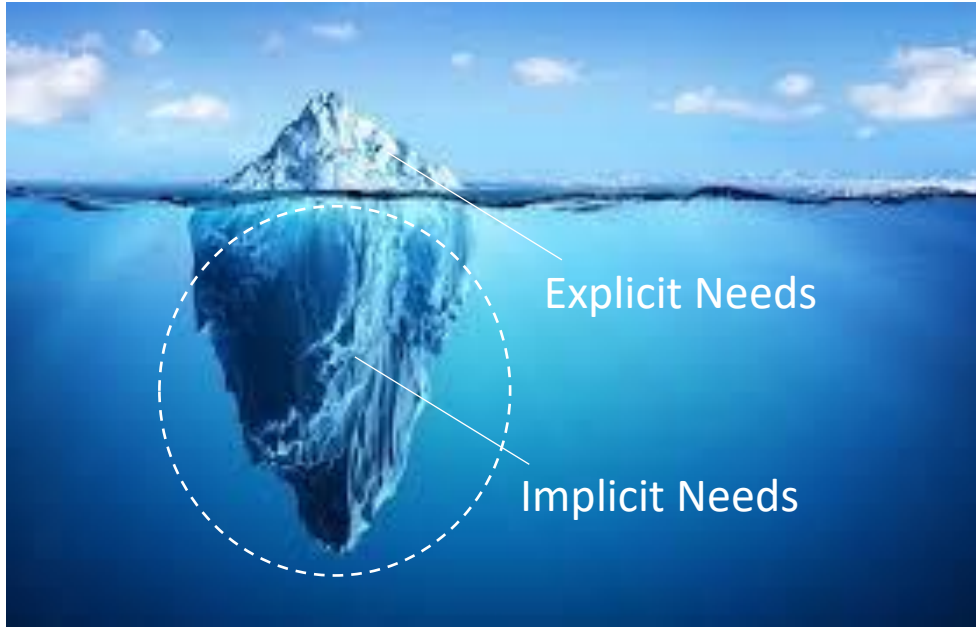
Implicit Needs

How to identify (understand) a. explicit needs and b. implicit needs (methods)?

- Design thinking cannot begin without a deeper understanding of the people you are designing for.

- It is important for you as a designer to empathize with the people you are designing for so that you can understand their needs, thoughts, emotions & motivations.

- Human-centered innovation: first step is to understand their needs (problem).

- **Problem** = the condition that desire (need) is not satisfied continues. (e.g. stress, inconvenience)

Trick-eye Crossroad

Positive Deviance
Program in Vietnam
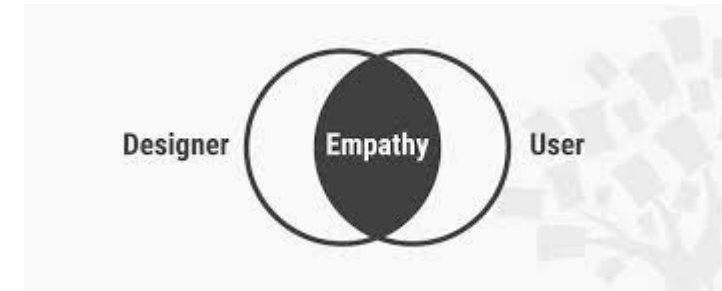(Malnutrition)

'Yellow carpet' for
children safety

Colored traffic guide

- Some examples of user-centered (human-centered, customer-centered) service design – 'empathize' with the people is critical step.

Empathize

- Then, how to identify (understand) people's needs (in particular, implicit needs) – three ways, a. Observe, b. Engage, and c. Watch & Listen. To empathize, you:

- **Observe**: View users and their behavior *in the context of their lives*, not yours. As much as do observation in relevant contexts in addition to interviews. Observe (and record) <u>what</u> they do, <u>how</u> they do, and <u>why</u> they do. Minimize your interpretation and use memo, photo, recording, video, etc. (choose most suitable method).

- **Engage**: Similar to interviewing, but feel more like 'conversation.' Prepare some questions you would ask, but expect to let the conversation deviate from them. Keep the conversation only loosely bounded. Elicit stories from the people you talked to, and *always ask 'why'* to uncover deeper meaning.

- **Watch and Listen**: *Combination of 'Observe' and 'Engage.'* Ask them, have them physically, go through the steps, interact with the subject, used the environment to prompt deeper questions.

(e.g.) GE's MRI for Children

- Diagnostic imaging procedures are cutting-edge technology but often they are an unpleasant experience for patients – even for pediatric patients (children).

- Doug Dietz – an industrial designer for GE healthcare remembered a little girl who was crying on her way to MRI designed by him.

- Challenge – create a scanner children would love.

- Approach – human-centered. Observing and gaining empathy for children. Interviews.

- Implementation – created a series of first prototypes of what would become the 'adventure series'

Point of View Statement: MRI Case

- **Problem situation**: Because of the fear of children and resistance to the MRI machine, sedatives are inevitable → affect the number of daily patient who has to be scanned.

- **Method**: human-centered design thinking

- **Point of View Statement**

Customer (Name)	This pediatric patient _____
Customer's Needs	Needs to overcome the fear of MRI machines and Noise
Point of View	Because getting a sedative every time (MRI) is not efficient.

(e.g.) Keep the Change Program

- Motivation: Observed that customers pay cash at grocery stores or restaurants → keep the change and deposit at the bank later.

- IDEO (a Design Thinking company) and Bank of America produce a debit cards, called Keep the Change.

- In the program – each purchase is rounded up to the nearest dollar, and the different is moved to an interest-bearing savings account.

- In addition, BOA will match that amount 100% for the first 3 months, and 5% thereafter.

Good Point of View (POV) Statement

- Task: How to lead teenagers to have good foods with vitamins.
- You need to have more specific statement

Elements	Normal POV	Good POV	Condition for Good POV
Customer	A teenager	A 14 year old girl starting new semester	Talk about specific customer
Needs	It is necessary to eat healthy food	Even when eating health foods, it is necessary to get a socially acceptable feeling	Describe deeper needs (potential needs)
Insights	Because certain nutrients are essential for physical health and cognitive development	Because she feels more important not to be bullied than to eat healthy foods among her peers	Describe some surprising things that were discovered during empathy (deeper root of the needs)

A Step Further: How Might We (**HMW**) format

- Ask 'how might we' questions for brainstorming: Choose 3~5 questions. You will get more ideas from participants and teammates. Choose best questions to solve the problems suggested in POV.

I interviewed a male worker in his 30s. He is busy with work and lacks time with his family. He was sorry for not being able to help his wife or play with his children. He was sorry that he could not take care of family, especially when there were problems. He wants to spend more time with his family. He said he would be happy if you gave gifts to his children. Currently the family is in Hanoi, and he works in Ho Chi Minh.

Interview Result

The male worker (customer) need a way to spend more time with his family. Because (insights),

He worries about his family
He is sorry for not being able to help his work (housework) and to play with his children
He believe that giving gifts to his children will make them happy
He want to see his family more often
Children live in Hanoi and he works in Ho Chi Minh

Point of View Statement

How Might We~:

1. *How might he* take care of his family problems?
2. *How might he* be less sorry for his family?
3. *How might he* see his family more often?
4. *How might he* give gifts to please his children?
5. *How might he* work at a place that is close to the family?

Convert POV to HMW format

A Practice: POV → HMW

_____ needs to find a way to _____

Customer's name   Customer's needs
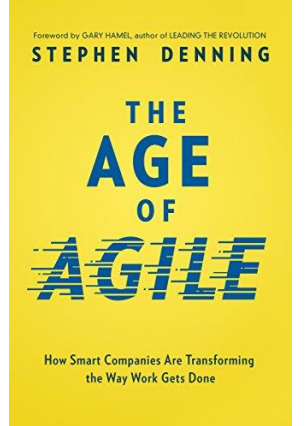
_____.

Because,

_____

_____

_____

_____

(Wright your insights)

List 'How Might We' questions and choose the best ones.

_____

_____

_____

_____.

_____

_____

_____

_____.

(Wright HMW questions here)

Agile Government: Fast Response

PAR PUBLIC ADMINISTRATION REVIEW | ASPA American Society for Public Administration

COVID-19 VIEWPOINT SYMPOSIUM | 🔓 Free Access

Fighting COVID-19 with Agility, Transparency, and Participation: Wicked Policy Problems and New Governance Challenges

M. Jae Moon ✉

First published: 29 April 2020 | https://doi.org/10.1111/puar.13214 | Citations: 19

PAR PUBLIC ADMINISTRATION REVIEW | ASPA American Society for Public Administration

Viewpoint Article | 🔓 Free Access

Agile: A New Way of Governing

Ines Mergel, Sukumar Ganapati, Andrew B. Whitford ✉

First published: 18 May 2020 | https://doi.org/10.1111/puar.13202

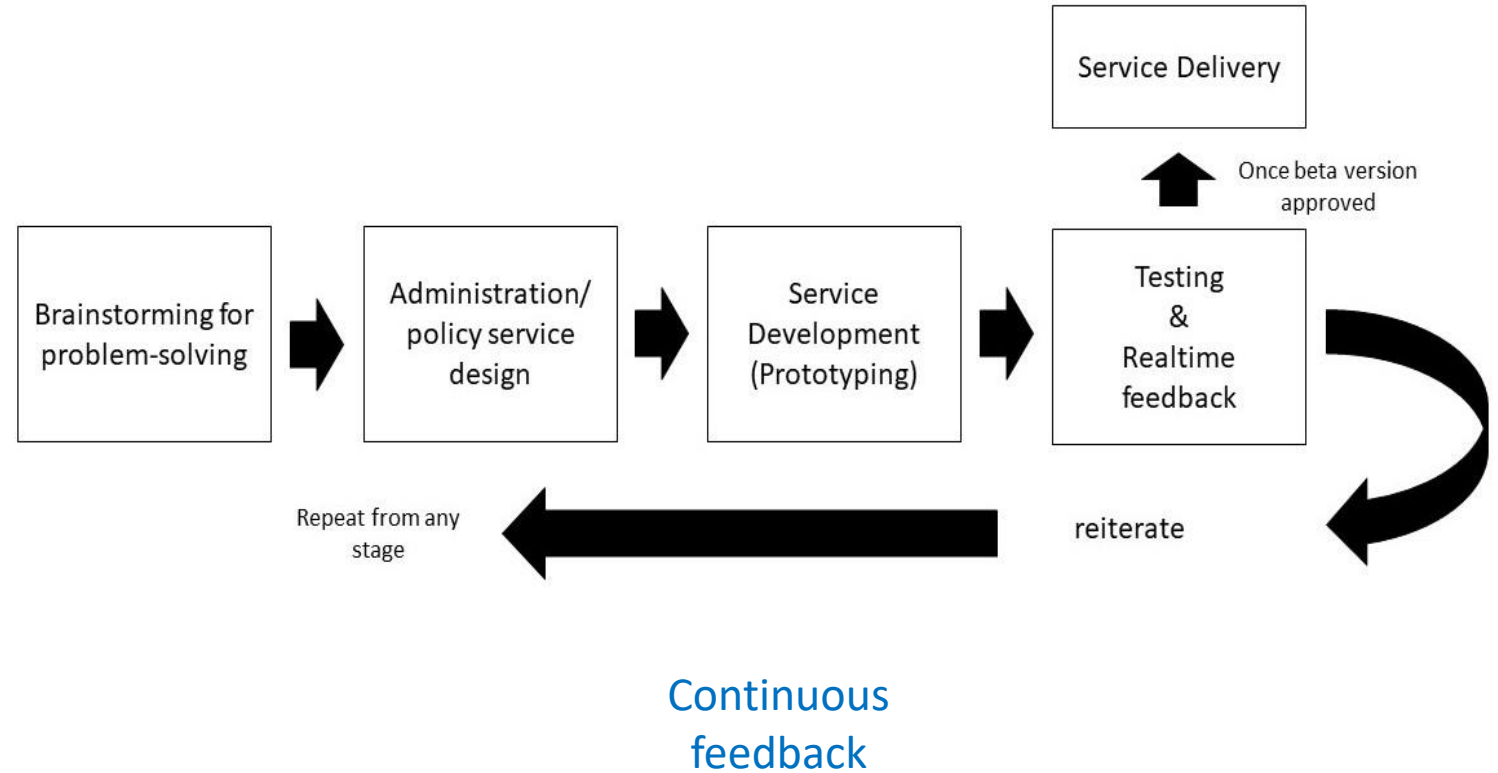*New Research Trend in Public Administration*

- Growing interest in '**agile**' public service.

- In many countries, government agencies are creating policies for agile government and introducing new practices & playbooks (e.g. US, Canada, Singapore, UK, etc.)

- Adopting this method (or mindset) through innovation labs, civil service design centers

- Contrasted with traditional waterfall approach – *user-friendly*, *participatory*, *experimental*.

- **Agile**: Allow teams to work on smaller increment, review often, reflect feedback right away, collaborate beyond agency lines, learn fast.

Waterfall

```
→ Conception
      ↓
   Initiation
      ↓
   Analysis
      ↓
    Design
      ↓
   Prototype
      ↓
    Testing
      ↓
  Deployment ←
```

Agile Approach

Brainstorming for problem-solving → Administration/policy service design → Service Development (Prototyping) → Testing & Realtime feedback

Testing & Realtime feedback → Once beta version approved → Service Delivery

reiterate

Repeat from any stage ← ← ← (Continuous feedback)

Continuous feedback

"Public service is a permanent beta version"
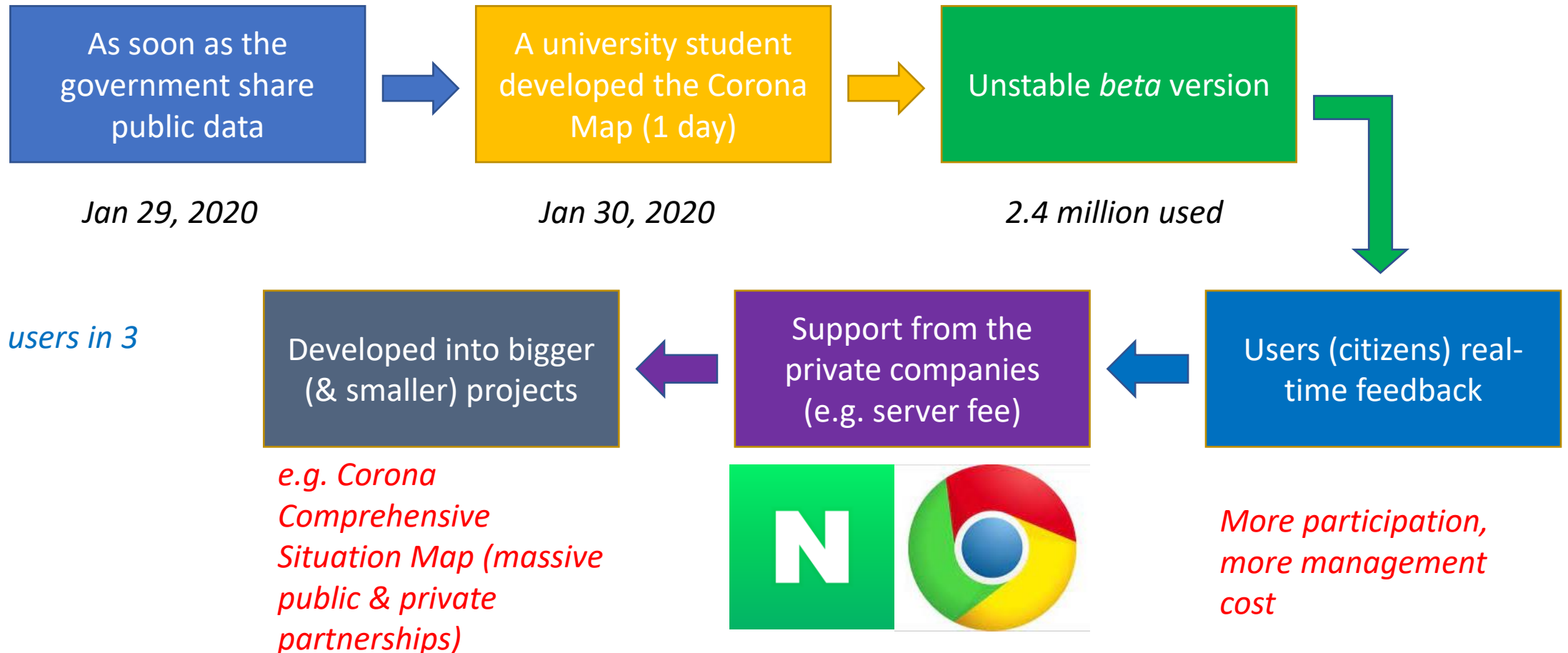
Case: 'Corona Map' Development in Korea

- Learnt from the past experience (MERS).

- Released COVID-19 related information to the public, as fast & reliable data is important.

- (e.g.) KCDC released 'Infected person movement information' – **in text format**

- Text format from the government website → **'not user (citizen) friendly.'**

- A university student (app developer) → put GPS coordinates of positive testers' movement on open-street map by using public data (KCDC) →developed 'Corona Map' (coronamap.site) **in a day**.
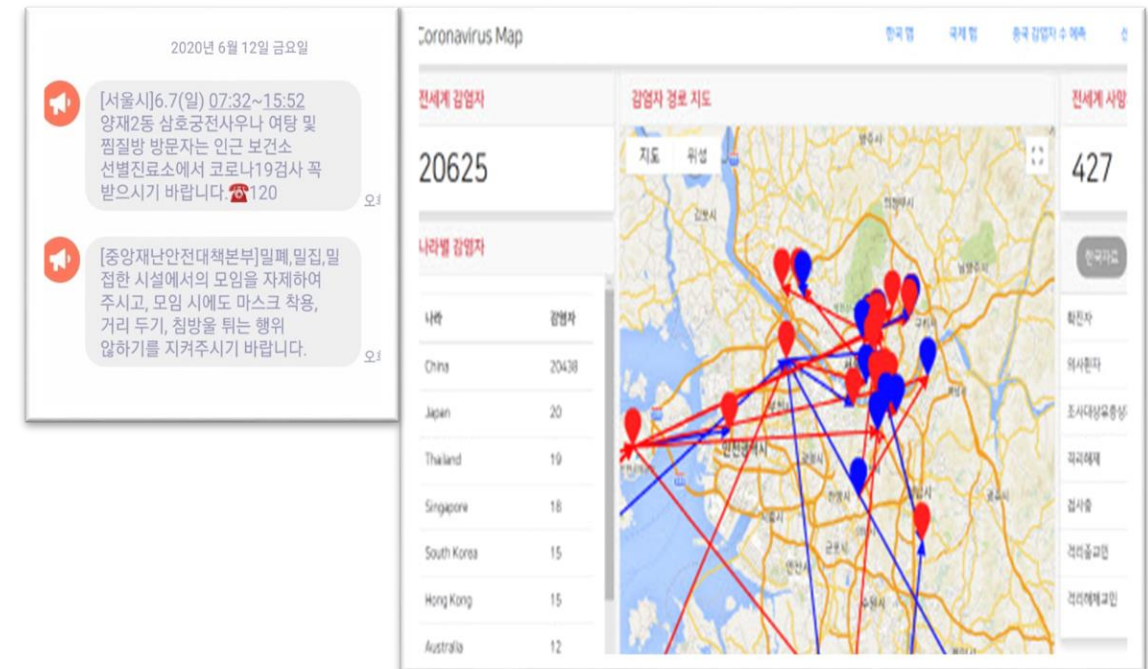
Visualized: Infected patients, their moves, locations, etc.

Agile, User-centered, Experimental, Proactive, Participatory!

As soon as the government share public data

Jan 29, 2020

A university student developed the Corona Map (1 day)

Jan 30, 2020

Unstable *beta* version

2.4 million used

Users (citizens) real-time feedback

More participation, more management cost

Support from the private companies (e.g. server fee)

Developed into bigger (& smaller) projects

42 million users in 3 months

e.g. Corona Comprehensive Situation Map (massive public & private partnerships)

You may wonder, by now…

- Whether our public organizations can use agile or design thinking methods – big challenges to traditional public management / policy process. Discuss challenges in the public sector.