Cities are complex ecosystems and spaces of exchange. Emerging technology and data processing tools, such as self-configurable Sensor Networks, Internet of Things technologies, Next Generation Mobile and Broadcasting platforms, Machine Learning, and Artificial Intelligence are transforming the cities that we live in, and the way we live in them.

The hyper-connected digital landscape means that urban residents live in a world where they don’t just seek information, they are information. Understanding the confluence of trends and the evolving relationship between people, systems and data is key to designing for resilience in an equitable way.

human-centered system development

Urban renewal is often led by technology but always shaped by people.

“When people trust that their data will be used as they have agreed, and accept enough value will be created, they are likely to be more comfortable with its use. This acceptance is referred to as social licence”

Data Future Partnership, June 2016

rethinking liveable, resilient cities

This project will explore how the Smart City model could be used for Wellington’s pre-earthquake recovery planning and post-earthquake recovery operations. The aim is to understand the use of sustainable and low cost:

- state of the art sensors capable of maintaining the sensing ability of a city/regional before, during and after a big disaster
- wired and wireless communication platforms linking smart sensors before, during and after a big disaster
- end-user accepted and trusted technology applications covering users needs for gauging human and infrastructure impacts

When considering the appropriate use of emerging technologies to solve local issues, human factors and institutional aspects need to be included as essential components of the ecosystem. One of the core aims of this project is to engage with a cross-section of urban residents as active end-users of Smart City services to gain urban landscape perspectives. Specifically:

What do people expect from sharing their data? How do they weigh up the trust-benefit of sharing their data?

5 stages of the design process:

Empathise
Understanding your users’ values. Wear their shoes so your assumptions don’t dictate what you create.

Define
Unpack your empathy findings into needs and insights and scope meaningful challenge.

Ideate
“Go-wide” Generate new ideas and approaches to solving your users problems.

Prototype
Get your ideas out of your head and into the world. Learn quickly and explore opportunities.

Test
Gain deeper insights. Learn from your user what works and what doesn’t.

Design Thinking Methodology Hasso Plattner Institute of Design at Stanford

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