

DESIGN RESEARCH

/

Conversations to inform equitable transport outcomes

Janine Pawson / Senior Service Designer, Aurecon

Engineering Reimagined /

Pushing different approaches away from siloed thinking and providing actionable inputs for transport planners and urban designers.

“Thinking about how we engage with a community who are entirely different from yourself.”

– Tamika Butler

“We have to meet the unmet, unarticulated needs of the customers. That’s the source of innovation. So if there’s anything that we’ve got to make sure each day, each week, each year that we do is to be in touch.”

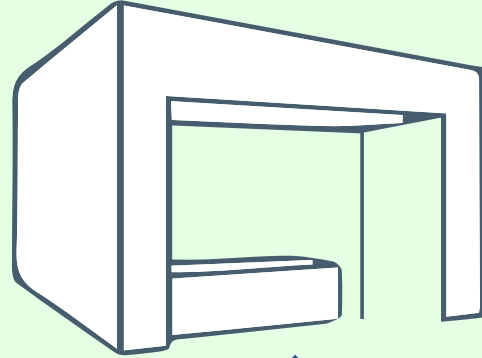
- Satya Nadella



Designing for Experiences

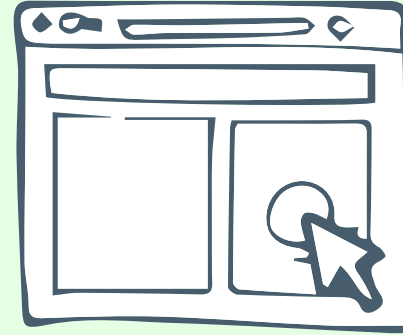
SPACES

Physical spaces give people signals about how to behave and influence how they feel.



SERVICES

Deep understanding of the people that you serve – not only what they need and desire but what limitations they face, what motivates them and what's important to them.



PEOPLE | EXPERIENCES | NEEDS

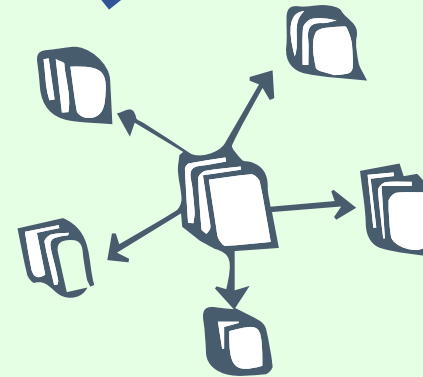
PRODUCT

All people are deserving of well-designed products, but challenges arise when the design of them isn't informed by broad ranging perspectives and needs.



SYSTEMS

Setting high-level strategy such as visions, priorities, policies and key communication around those ideas.

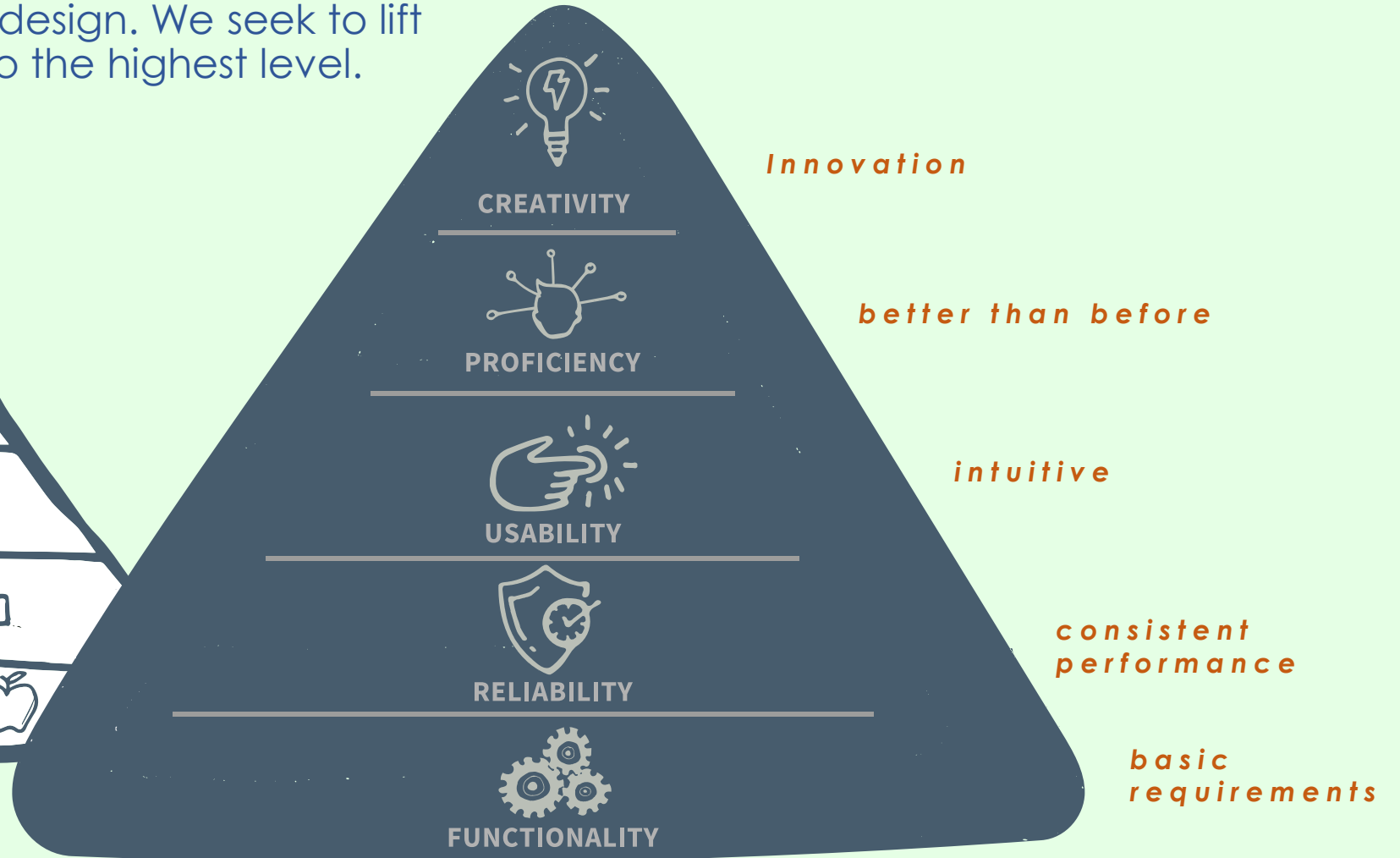


Design Hierarchy of Needs

Extending Maslow's hierarchy of needs and applying the theory of human motivation into design. We seek to lift design outcomes for **all** people to the highest level.



Source: Hierarchy of Needs, 1943, Abraham Maslow



Sign of the Times...



- *Social distancing has prevented companies from getting face-to-face customer feedback through conferences, in-person labs, and meetings—traditional methods many companies relied on for insight gathering. Many of these companies are looking to remote user tests as a way to replace that customer insight.*
 - *Many companies are finding that customers are more stressed and emotional than usual, and are accelerating their deployment of user tests to get fast feedback*
 - *Better understand how their customer's needs are changing in light of COVID-19.*
 - *Give all employees a general sense of empathy for their customers during these times*
- Andy MacMillan, CEO UserTesting, 2020 CX Industry Report

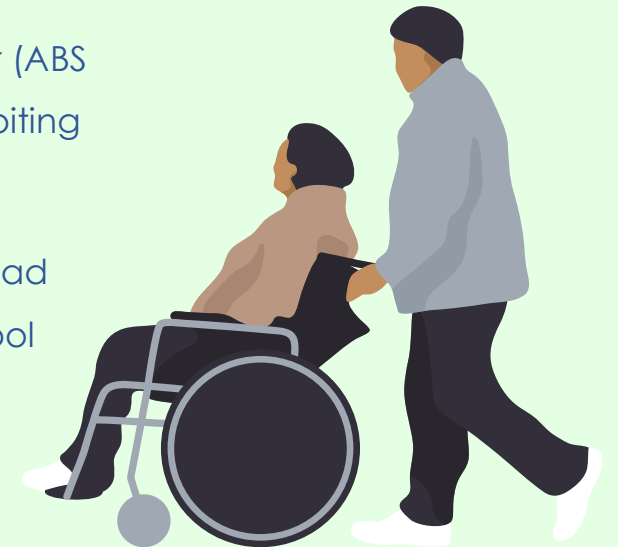


"They were so excited to be able to contribute to major infrastructure projects...they just couldn't believe it, it was mind-blowing for them."

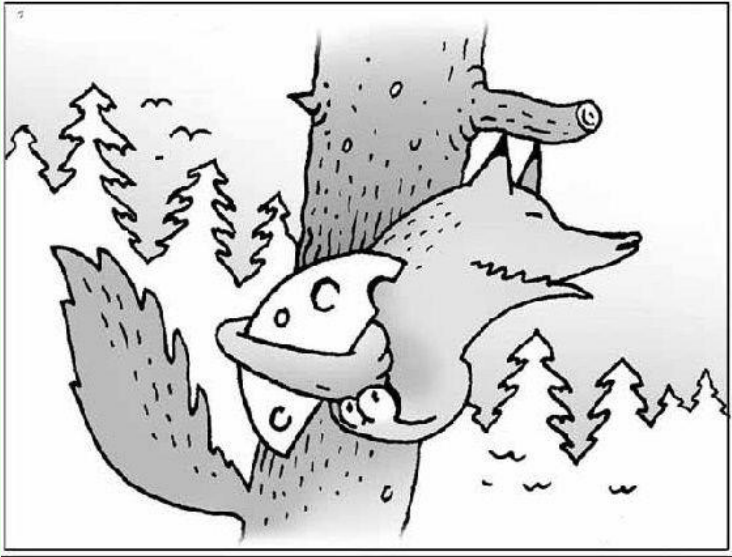
Sue Boyce, CEO AbilityWorks

Representation

- 1 in 5 Australians have a disability (Source: AbilityWorks)
- Up to 11 in 100 Australians have a diverse sexual orientation, sex or gender identity (source: Australian Human Rights Commission)
- Baby boomers aged 65 and over make up approximately 15.9% of the Australian population (Source: Australian Bureau of Statistics, June 2019)
- Between 2011 and 2016 stay-at-home fathers increased by 17% (within just five years!) (Source: Australian Institute for Family Studies.
- In 2014–15, 1 in 7 (14% or 32,000) Indigenous females experienced physical violence in the previous year (ABS 2016). Of these, about 1 in 4 (28%) reported that their most recent incident was perpetrated by a cohabiting partner (AIHW 2018). (Source: Australian Institute of Health & Welfare)
- In 2018, 92.3% of young people (101,900) aged 5 to 20 years on the autism spectrum attending school had some form of educational restriction (92.3%), including a small number who were unable to attend school because of their disability. (Source: Australian Bureau of Statistics, 2018)



Taking a view unto your own



Human outcomes

Going beyond requirements and compliance.



Further extending Maslow and the Design hierarchy are a needs principles hierarchy that we strive to deliver as human-centred designers.

“Understanding and meeting human needs are critical for improved livelihoods and better governance.”

Panthea Lee, Reboot Org.

Forrester Research, adapted from Elizabeth B.N. Sanders, “Converging Perspectives: Product Development Research for the 1990s” Design Management Journal Vol. 3 No. 4 (1992)

Human-centred design principles & neuropsychology

Human behaviours & desired experiences



To have an easy experience it needs to not only be an easy physical environment but also be easy for the brain of the customer to navigate.

- Minimise FEAR responses
- Maximise REWARD responses

We need to move users into a reward state and keep them out of the threat state.

*source BrainLink Group Dr Norman Chorn and Dr Terri Hunter

Designing for great user outcomes (that are equitable)

Spanning across services systems, spaces & products.



To move users into a reward state we need to design our products, services, spaces and systems to enable a psychologically safe state.

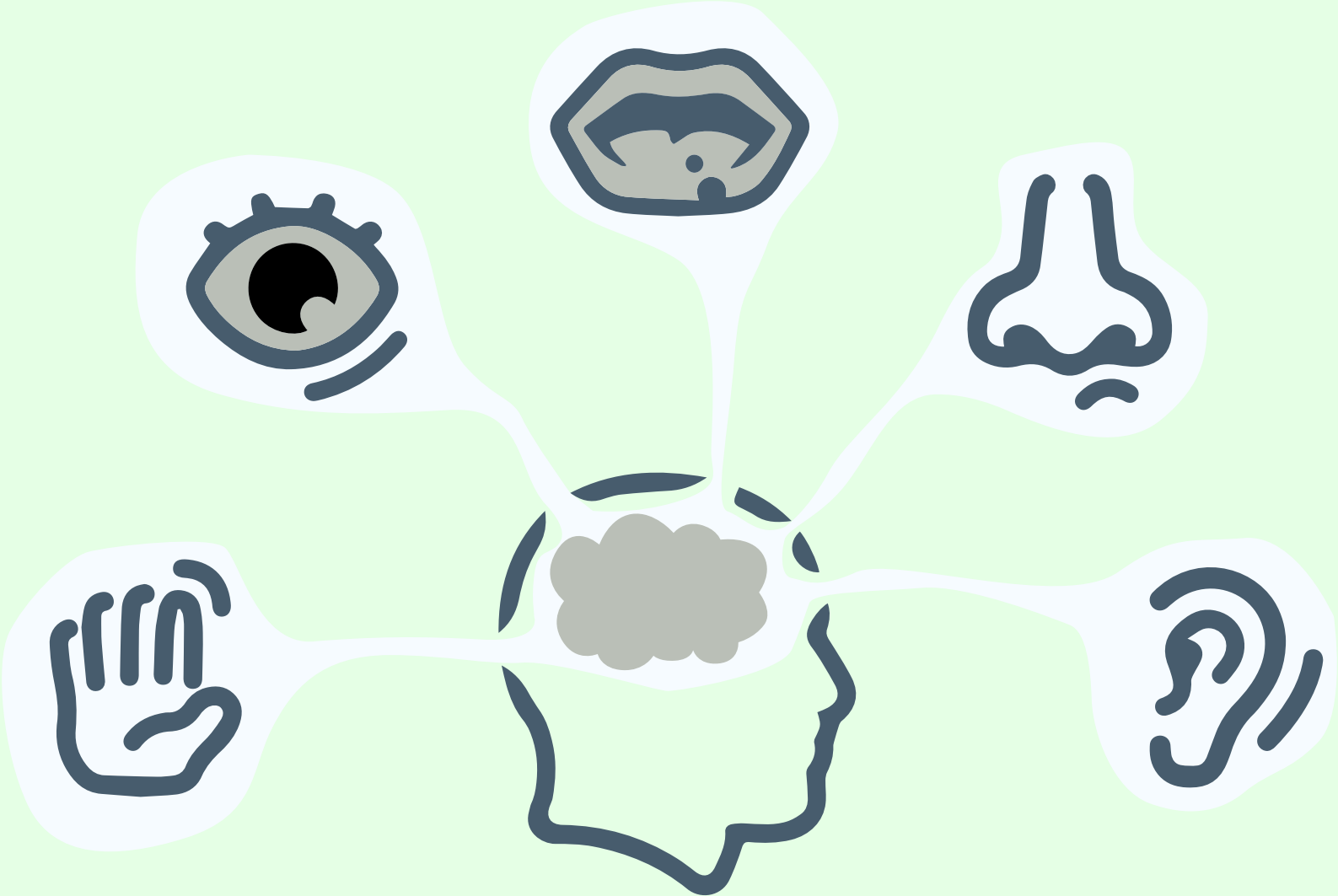
Fundamentally we need to deliver an experience that appeals to the human drivers of motivation and behaviour* for

- **S**ecurity
- **A**utonomy
- **F**airness
- **E**steem
- **T**rust and
- **“Y**ou” - to address their own situation

*source BrainLink Group Dr Norman Chorn and Dr Terri Hunter



Insights from Infrastructure





みんなの『できない』を『できた!』に変える。

Equity contributes to ALL of these:

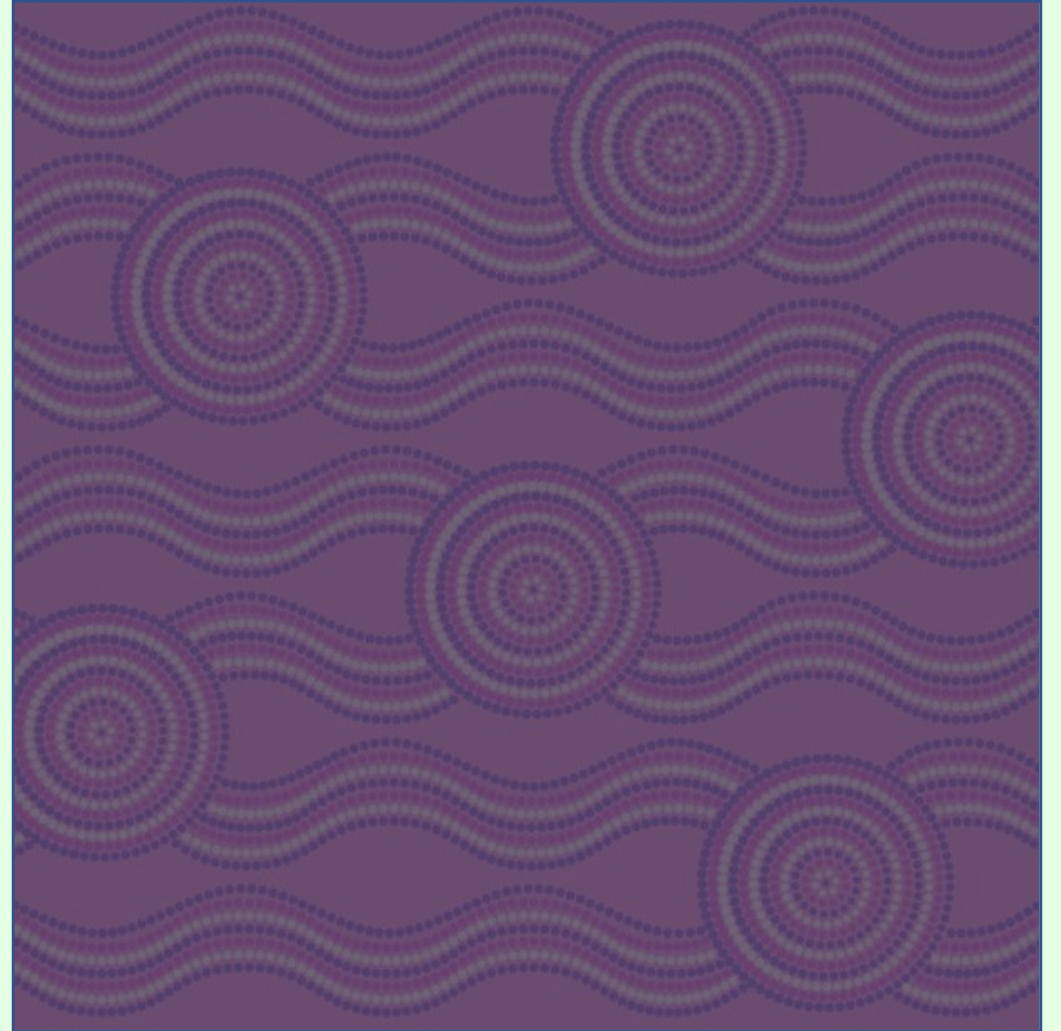
Infrastructure Australia Priority List, August 2020

- **Efficient Markets** / Lowering barriers-to-entry and fostering competition to make better use of resources and minimise costs for businesses and consumers.
- **National Connectivity** / Improving the ease of movement from one part of Australia to another, for people, goods and services.
- **Remote Infrastructure** / Delivery of quality services and infrastructure in remote areas of Australia to improve quality of life for residents and enhance opportunities for social and economic development.
- **Road Safety** / Reducing the risk and number of crashes, injuries and deaths on Australia's roads.
- **Social Infrastructure** / The provision of facilities, spaces, services and networks that support the quality of life and wellbeing of our communities. This includes a variety of sectors: health and aged care; education; green and blue infrastructure (assets that incorporate natural vegetation and waterways), and recreation; arts and culture; social housing; justice and emergency services.



Links

- [Aboriginal Professionals in Transport Network \(Victoria\)](#)
- [Aboriginal Service Development Officer \(NSW\)](#)
- [National Aboriginal & Torres Strait Islander Corporation – Transport & Community Services](#)
 - [Transport Dreaming National Conference, 2021](#)



Thank you!

What wicked (and equitable) problems are you looking to solve for your users, citizens or customers?

Share your experiences & stories.

Reach out and chat:

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