Maximilienne Whitby

People and Place Research Cluster Talk 2018
Design for Neurodiversity

Inclusive Design
Accessible Design
Universal Design

Environmental Psychology
Behavioural Psychology
Building Analysis (POEs)

Mental Disability
Neurodevelopmental Disability
Neuroscience

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Overview of Existing Work
Making Space

2016 Project investigating barriers and spatial needs to use of public buildings for users with lived experiences of Autism Spectrum Disorder (ASD) and Borderline Personality Disorder (BPD) during Sensory Overload (ASD) and Dissociation (BPD).

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Cambridge Workshop on Universal Access and Assistive Technology (CWUAAT18)

Breaking down barriers between disciplines
Breaking down barriers between users, designers and developers
Removing barriers to usability, accessibility and inclusive design
Breaking down barriers between people with impairments and those without
Breaking down barriers between scientists and policy makers
Removing barriers to open data and open government
Recent barriers to effective rehabilitation robotics

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Composite Mapping for Evaluation of Usability of Targeted Affordances

The development and use of a composite mapping methodology within the Sydney Opera House sought a greater understanding of potential barriers to use of targeted affordances for public building users with lived experiences of Autism Spectrum Disorder (ASD) and Borderline Personality Disorder (BPD).

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Behavioural Mapping + Environmental Psychology Theory = Map to measure how usable the case study locations are
Why does usability matter?

*and also, why is it hard to measure?
How does the behaviour of other people impact how usable a building is for users with ASD or BPD?
Hierarchy gradient of publicness territorial zones: podium level Sydney Opera House

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Observational behavioural mapping pre matinee Sydney Opera House

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Composite mapping
matinee
Sydney Opera House

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Case study location 4

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Where can I find the wider results of the project?


PhD Overview
Towards Design for Neurodiversity:
Person Environment Fit Implications of Atypical Somatosensory Function in Neurodiverse Adults.
Overview

Mixed Methodology

Systematic Literature Review
Spatial Precedent Studies
Semi Structured Interviews
Surveys
Card Sort
Object Sort

Key Words

Neurodiverse
Person-Environment Fit
Somatosensory
Inclusive Design
Knowledge Exchange
Participants

• 45% of all Australians will experience a mental or behavioural condition in their lifetime. (Australian Bureau of Statistics, 2010)

• 17.5% of Australians experience mental or behavioural conditions at any one point in time. That is over 4 million people right now. (Australian Bureau of Statistics, 2015)

• 14.4% of Adults in Australia have an Anxiety Disorder (Australian Bureau of Statistics, 2008)

• 5.4% of Australian Adults currently have some type of Depression (Australian Bureau of Statistics, 2008)

• 1.8% of Adult Australians have a diagnosis of a Bipolar Disorder Australian Bureau of Statistics, 2008)

• Between 1-3.5% of Australians over the age of 18 have Borderline Personality Disorder (Australian Government National Health and Medical Research Council, 2012)

• Between 0.7% and 2% of Australians have Autism Spectrum Disorder (Australian Bureau of Statistics, 2017)
Methodology Overview

Systematic Search

Spatial Precedent Scouting

Semi Structured Interviews
- Surveys
- Card Sort
- Object Sort

Phase 1

Phase 2

Phase 3
References


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