VISIONARY
Design Development Pty Ltd

Se habla español

Architecture
STRATEGIC PLANNING
SUSTAINABILITY
Latin America
Community Development
Research
ACCESSIBILITY

healthy
ACCESSIBLE
SUSTAINABLE
INCLUSIVE
communities
INTERNATIONALLY

UMI
UNIVERSAL MOBILITY INDEX

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PURPOSE

To assist governments, local authorities and other organisations to remove barriers to mobility of persons of all physical abilities in their built environments.

OBJECTIVE

To research, plan, design and develop healthy, accessible, sustainable, inclusive communities.

MISSION

To use our unique trans-disciplinary consultancy skills to ensure all projects and activities are underpinned by the entwined principles of Sustainability and Accessibility.

UMI
Universal Mobility Index

Barriers to mobility cause exclusion, thwart self-determination, stifle diversity and deny dignity by direct discrimination.

The Universal Mobility Index (UMI) is a new tool available to be implemented by Visionary Design Development.

Engaging VDD to apply the UMI represents a world first opportunity to demonstrate the ways in which policy, practice and partnership can operate in conjunction with key stakeholders to achieve sustainably accessible communities with increased levels of equity, inclusion, autonomy and justice for persons of all abilities.

The UMI involves a unique approach to the study of disability by providing for the first time a conceptual framework on how physical access can be measured. This new and innovative composite indicator is anchored in the rights-based approach to social justice viewing access in the built environment from a 'lived experience' perspective. Much more than an academic exercise, the UMI is a tool with direct practical application. It allows comparative and longitudinal quantification of access for persons of all abilities to the whole built environment – infrastructure, private dwellings, and buildings both commercial and public.

Visionary Design Development Director Ralph Green's 2007 Masters Thesis in Social Science (International Development) at RMIT University involved a unique approach to the study of disability by providing for the first time a conceptual framework on how physical access can be measured. The resulting composite indicator, the Universal Mobility Index, views persons with disabilities from the perspective of the World Health Organisation's International Classification of Functioning Disease and Health (ICF) as sanctioned by Disabled Peoples International.

Much more than an academic exercise, the UMI has direct practical application in the ways that it comparatively and longitudinally quantifies access for persons of all abilities to private dwellings, commercial buildings, public buildings and infrastructure, ie the total built environment.

The UMI concept has generated considerable interest . Ralph has presented at the Planning Institute of Australia (PIA) 2007 national conference in Perth, WA, in Victoria, to disabled people's organisations, Local Governments, the Building Commission, and Built Environment professional groups such as Australian Institute of Architects and Architects for Peace. After a 2007 study tour of six developing world country's built environments Visionary Design Development has refined the UMI tool to be ready for application by progressive local governments, public institutions, academia and disability reference groups (or equivalent) both in Australia and internationally.

Practical Application of the UMI

Use of the Universal Mobility Index will allow any level of organisation to:

- Assess what changes to the built environment persons with disabilities want to be made.
- Prioritise these changes in accordance with the wishes of people with disabilities.
- Assess, reassess and longitudinally track their record of access provision.
- Measure success and inform all stakeholders.

Improved and increased opportunities therefore will result for people with disabilities for participation and inclusion in all areas of community life.

Rigorous research has informed and updated the theoretical and methodological framework of the UMI. From its conception, the UMI has been developed for practical operation. Composite indices – of which the UMI is one example - are in use for assessment and monitoring by organisations such as United Nations Development Program's Human Development Index (HDI). An evolving canon of literature in the social sciences, international, human and community development disciplines relies on Composite Indices to communicate the status and change of complex systems under study. The UMI takes a 'whole of government approach' to mobility within the built environment overcoming the previous limitations in assessment of commercial or government building for accessibility as if they existed as isolated islands within the built environment.

Thesis research involved consultation with MetroAccess and RuralAccess Project Officers, people with disabilities and Disability Advocates as well as Council Planners to obtain stakeholder input. People with disabilities (and/or their advocates) within the local community would be intimately involved during the various phases of the UMI application. The methodology empowers local people with disabilities by placing them at the centre of assessment process when determining the accessibility of their local environment. The result is a strengthening of their voices and enhanced opportunities for community membership, participation and inclusion.

Implementation of a UMI demonstrates positive action on social inclusion and builds bridges between governments, institutions and their stakeholders.

The UMI is by design an 'overall' approach to resolving the (in)accessibility of the Built Environment. It does not produce detailed access audits of any particular built object.

The intended outcome of any UMI study is to illuminate ways forward to ensure that any locality's built environment is accessible thereby laying foundations for the extension and enhancement of disability service provisions that are in place in that locality. Importantly the UMI illuminates which parts of the built environment present barriers, and prioritises their resolution. It then measures the effects of and assists with resources targeting.

Methodology

- Composite Index evolved from weighting components of the Built Environment
- Relative weighting of components arrived at by disabled people's organisations
- Extent of accessibility assessed (on a Lichart scale) by users (People with Disabilities) in accordance with an appropriate standard, eg Access to Premises Standard
- Upfront research/, data collection, surveys and field work within an Activity Centre or other defined area.
- Data analysis using the UMI approach.
- Make recommendations and suggest strategies using the UMI approach.
- Identify specific works and/or actions to enhance mobility within the study area.
- Prioritise specific works and/or actions.

OUTCOMES

IMMEDIATE

- Rate the current accessibility of the Built Environment of an Activity Centre or Local Government Area.
- Identify 'under-performing' components of the Built Environment.
- Propose ways forward to improve the Built Environment in accordance with the prioritisation desired by people with disabilities.

People with disabilities will be involved in the UMI process thereby having a powerful voice in determining what changes to the built environment are wanted.

Once a UMI study is completed people with disabilities will be informed about the standard of access provisions within their local area. Audit data will illustrate which components of the built environment least satisfy the needs of people with disabilities. This quantitative information will empower disabled people's organisations to work with; government, local organisations, businesses and other Built Environment stakeholders to achieve change.

SUSTAINABLE

Affordability

Due to the far-reaching consequences of improved mobility within the built environment for People with Disabilities, the costs involved in undertaking a UMI study are very affordable and will deliver major costs benefits to the community over time.

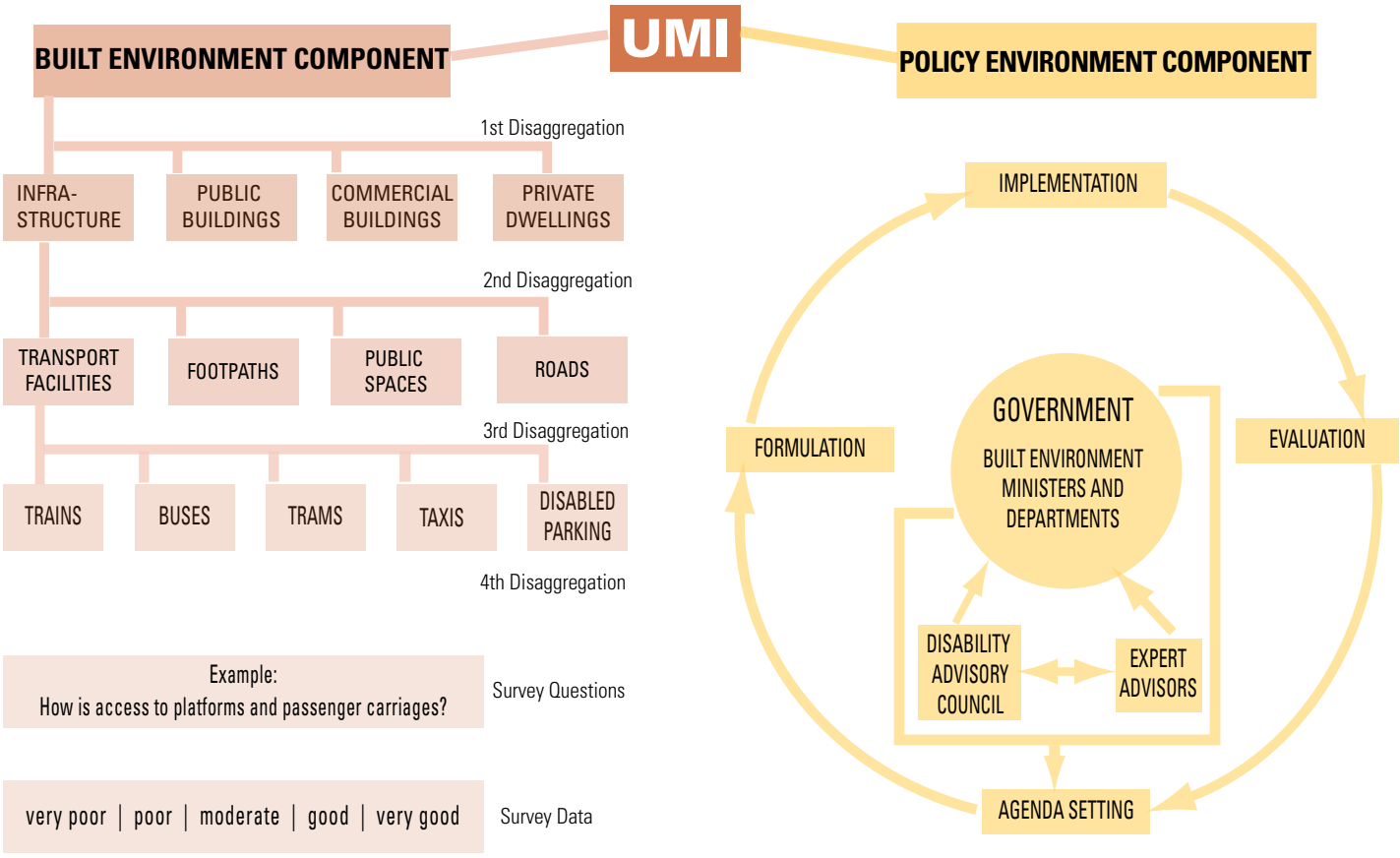
Longitudinal Studies

The ongoing outcome, ie continually improving mobility, will be sustained by way of longitudinal studies. Such studies will enable tracking of mobility improvement. Increasing mobility allows increasing autonomy, a key indicator of improved quality of life.

LONG TERM

Acceptance of the Universal Mobility Index as the standard measuring device for community mobility.

SCHEMATIC DIAGRAM OF THE LOGIC OF THE UNIVERSAL MOBILITY INDEX



BENEFITS

SECTOR

Inform all stakeholders within the built environment by :

- Providing a quantitative assessment of access for people with disabilities.
- Highlight and prioritise action on barriers to mobility.
- Act as a comparative measure between activity centres/councils/regions/ governments.
- Act as a longitudinal measure over time of the success (or otherwise) of policies and planning.

'WHOLE OF GOVERNMENT'

The UMI will provide a tool for governments and their institutions with responsibility for the built environment to guide policy development and implementation and inform planning decisions across a range of portfolios – a 'whole of government' approach.

RALPH GREEN

Ralph holds undergraduate and postgraduate qualifications in Optometry and has worked in clinical practice, academia, hospital settings and in developing world aid projects. Throughout 1998 – 2002 he served as an advisor to transport ministers in the Kennett and Bracks governments, chaired the Victorian Motorcycle Advisory Council and was the motorcycle representative on the Road Safety Reference Group. In 2006 he was the first optometrist to be appointed to the ophthalmology department of the Alfred Hospital. He served as a director of the Australian Latin American Business Council in 2006/7. In 2007 he accepted a position as Community Education Projects Manager with the Optometrists Association of Australia to work on the Vision2020 campaign against avoidable blindness and produce Continuing Professional Education as well as an industry Short Course. Also in 2007 he was awarded a Masters of Social Science (International Development) from RMIT University after completing a thesis in the field of disability studies. This research provided the first theoretical and methodological framework for measuring equity of access across all parts of the built environment, the Universal Mobility Index (UMI). Ralph has presented on the UMI at Planning Institute of Australia's 2007 national conference and in Melbourne at Transported - Collective Transport Sustainable Cities. Throughout the remainder of his studies, Ralph focussed on Latin American issues researching such areas as; Governance, Democracy and Health Sector Reform. Ralph has also been pivotal in obtaining funding for Pilotos Solidarios, an Argentine health NGO.

MARY ANN JACKSON

With degrees in Architecture and Applied Science (Built Environment) and a Graduate Diploma in Urban Planning, Mary Ann currently sits on the Property Advisory Council of the Summer Foundation, Golden Plains Shire Disability Advisory Committee, the Australian Institute of Architects Access Committee Victoria and the Australian Institute of Architects (Victoria Chapter) Sustainable Architecture Forum Education & Training Workgroup. Mary Ann is also currently assisting the Building and Construction unit within the Victorian government's Department of Innovation, Industry and Regional Development with a Construction and Related Industries Trade Mission to Latin America, to be undertaken in May 2009.

An accredited Access Consultant, she is the writer of Applied Universal Design, (an elective subject within the Bachelor of Sustainable Built Environments course to be delivered by Box Hill TAFE), and has recently completed Sustainability Assessment training. Mary Ann has also tutored several tertiary and graduate level courses and seminars in design, technology and accessibility.

A long term member of Archicentre, Mary Ann regularly provides access advisory services to people with disabilities, seniors, the Transport Accident Commission and Occupational Therapists. Other current memberships include: National Association of Women in Construction (NAWIC), Architects for Peace, Glenelg Shire Planning and Ancilliary Services Consultants Panel, Australian Latin America Business Council (ALABC), Australian Green Development Forum (AGDF) and ArchiTeam Co-operative Limited. As a director of the latter (1999-2003), Mary Ann assisted with the needs of a network of over 300 small practice architects.

UMI Thesis Abstract

An introductory theoretical and methodological framework for a Universal Mobility Index (UMI) to quantify, compare and longitudinally track access provision in the built environment of developed and developing countries.

Abstract

Physical disability is common in both developed and developing countries with the incidence predicted to increase dramatically in the next 30 years. Everyone is likely to experience disability at some time in their lifetime suggesting that an inclusive built environment whose facilities are accessible to all the community would be of universal benefit. Including universal design principles into buildings and infrastructure is highly cost effective compared with retrofitting. Yet much urban design and construction continues to present barriers to people with disabilities, the injured and ageing, even parents managing prams and small children. While access audits provide some insight into improving equity of access, reports are limited in scope by the brief, multiple levels of responsible authorities and not directly reflective of the wishes of PwDs.

Academic literature within three theoretical fields is reviewed: 1) Human Development / Quality of Life and indicators, 2) Models of Disability and 3) Built Environment Access Provision and Policy Making. A new composite human development indicator – the Universal Mobility Index (UMI) – is introduced, projected on the theoretical foundations of the literature reviews in accordance with the World Health Organisation's International Classification of Functioning Illness and Health. A methodology is developed for the operationalisation of the index. This is tested by gathering a small data sample and proves cogent to the life experience of PwDs surveyed. The UMI comprehensively interlaces at the node formed by the intersection of current understanding of human development, disability and access provision. The Index quantitatively measures, comparatively rates and longitudinally tracks, equity of access. It is the first and only tool that measures the lived experience of physical access across all parts of the built environment; illuminating how barriers to mobility discriminately constrain the autonomy of PwDs to exercise their full human capabilities through denying or restricting participation in community, educational, occupational and many other activities, resulting in oppression and stigmatisation.

The UMI empowers people with disabilities by incorporating their own assessments of barrier severity and prioritisation. A policy environment component scrutinises the inclusion of disabled people's organisations opinions in the policy making processes affecting the built environment. Adoption of the UMI by government and NGOs can address the fragmented and exclusionary nature of current access considerations across the built environment.

About Us

Visionary Design Development Pty Ltd, a unique trans-disciplinary consultancy, operates at the intersection of human needs and the built environment. Our distinctive holistic approach incorporating universal design, sustainability and social research, delivers consultancy services to government, NGOs and businesses to provide ideal environments in which to nurture enterprise and healthy local communities.

Architecture

Public, corporate and residential design.

Accessibility

Accessible universal design inclusive of the needs of people with disabilities. Special expertise in designing for people with vision loss.
Accessibility courses for building industry professionals, government and NGOs internationally.

Sustainability

Sustainable design incorporating energy conservation, natural lighting/temperature control, recyclable materials.

Strategic Planning

Community mobility and inclusive urban access. Project Management.

Community Development

Management of projects for the inclusion of people with disabilities.
Application of the Universal Mobility Index, a unique tool developed by VDD which permits quantitative assessment of access within the local built environment by people with disabilities.
Co-ordination and curation of exhibitions.

Research

Comprehensive academic and consultancy reports on the built environment including literature reviews, case studies, stakeholder analysis through surveys, focus groups etc.

Latin America

Facilitation of bilateral co-operation and development of cultural and commercial exchange between Australia and Latin America within the Built Environment and Community Development spheres.

We offer specialist advice in researching, planning, designing and developing healthy communities, locally, regionally and internationally.

Company Information

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