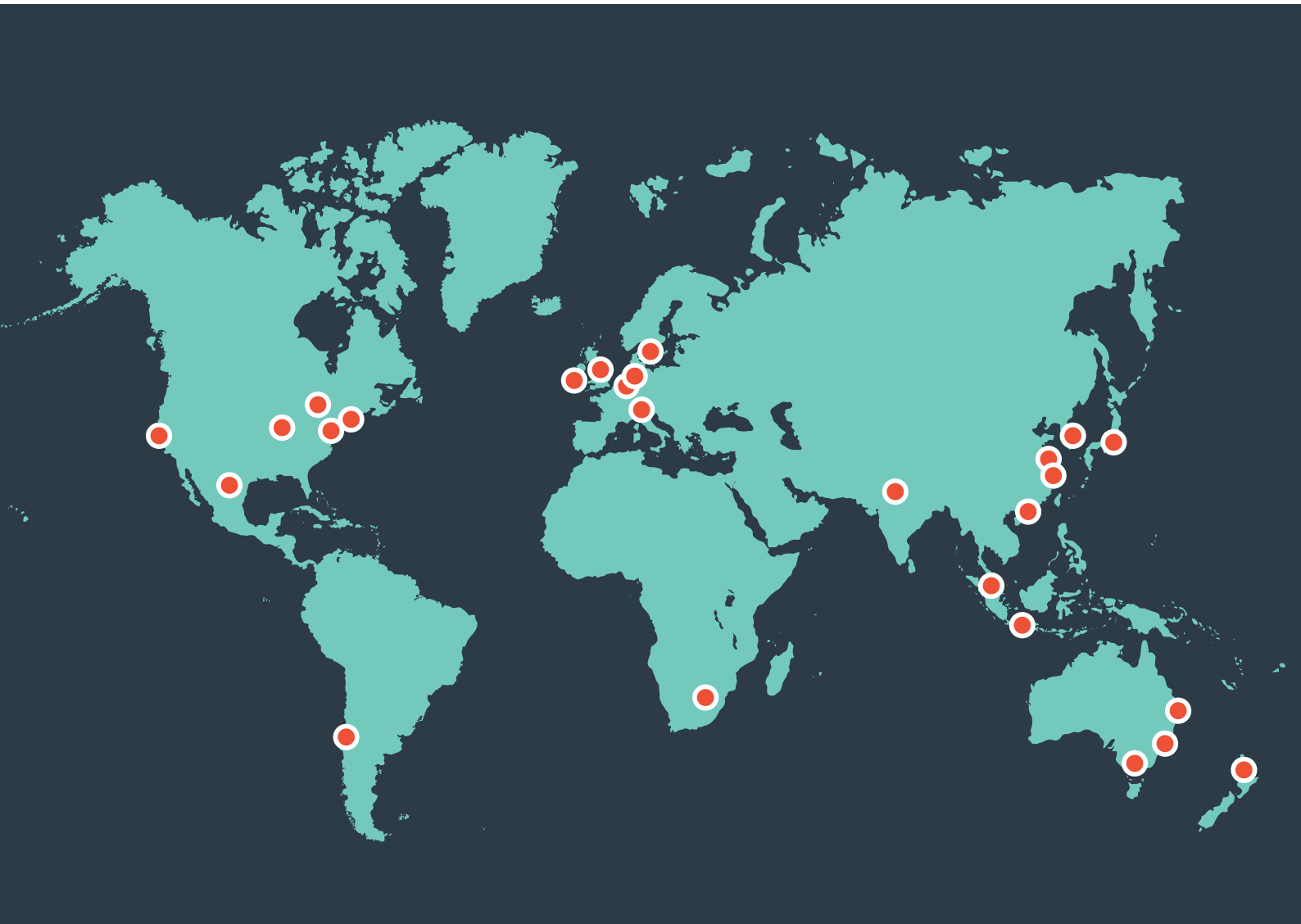
The Universitas 21 Disability **Inclusion Policy Mapping Report**

Partnering globally to champion change

Part Five: University services and disability inclusion

June 2025

Image illustrates the global collaboration of U21 and this project - the image on the title page is a map of the world with orange circle symbols of each member university appearing on the city where they are based.



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Background

Throughout 2023 and 2024, the Universitas 21 Equity, Diversity, and Inclusion (EDI) Working Group undertook the development of a Network-wide framework to guide EDI efforts across member institutions.

As part of this process, the U21 Disability Community of Practice (COP) was consulted during the drafting of the U21 Framework for Equitable and Inclusive Global Engagement. Recognising the value of this Framework, the Disability COP sought to support and enhance the leadership of U21 universities in advancing EDI, particularly in the area of disability inclusion.

Building on this momentum, the Disability COP proposed the U21 Disability Policy Mapping Initiative. This initiative invited university leadership to submit all relevant public documents pertaining to the inclusion of persons with disabilities. Each institution was also asked to nominate a contact person to facilitate the provision of these policies and to participate actively in the Disability COP.

Professor Paul Harpur OAM, as co-lead of the Disability COP and with established funding and strong backing from U21, offered to lead a Comparative Interpretive Policy Analysis (CIPA) of the collected documents. This analysis aimed to identify common commitments and best practices across the network, culminating in recommendations for a U21 Disability Inclusion Policy Mapping Report.

In April 2024, the U21 Senior Leaders' Group formally adopted the U21 Framework for Equitable and Inclusive Global Engagement and endorsed the U21 Disability Inclusion Policy Mapping Initiative. Throughout 2024, the Disability COP received substantial support from the U21 secretariat in finalising and distributing a survey to all thirty universities within the network. The survey was completed, and relevant documents were collected. Additional data collection and analysis were required following the inclusion of the University of Illinois at Urbana-Champaign in the U21 Network. A dedicated team of staff and students from across the U21 Network contributed to data collection, analysis, and the drafting of this report, with a full list of contributors included in the attached document.

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Parts and their chapters are authored by staff from across the U21 Network, who may use variations of inclusive language as best matches their experience.

Introduction to the U21 Disability Inclusion Policy Mapping Report

Professor Paul Harpur OAM

Introduction

In this introductory chapter I want to share my personal vision, as well as the vision of many colleagues involved in this journey of change.

I believe universities are a force for good in society. University education opens opportunities to individuals and provides our nations with the workforces they need for economic growth. Universities employ thought leaders who produce research and innovation which grows economies, enhances policy responses, and leads to transformational scientific discoveries. Discoveries which have strengthened food security, the environment, health, modelling and other benefits to society. Highly visible benefits of such research include the development of vaccines, such as for COVID-19 and the HPV viruses, GPS technology, and web browsers.

The universities who feature in this report, the 30 member universities of the Universitas 21 (U21) Network, individually and collectively are enriching, empowering, and enabling the communities they serve. Those communities are stretched over 20 countries, collectively including 1.3 million students, over 220,000 staff, have approaching 2.5 million alumni, and stretch their positive impact into towns, cities and across the globe.

Those of us privileged to work in a U21 Network university, work in an institution that is committed to positive change. For many of us who want to have a positive impact upon the world, when we advance our personal visions, we find we are aligned to the vision of our university. The energy of those involved, along with the support for this report, has already led to impact and to the successful completion of this report.

Structure of this report

Following this introduction, the report is structured into five distinct parts. Each part can be read independently or as part of the complete document. The parts of this report groups chapters according to most universities' organisational structures. Accordingly, Part 1 addresses university-wide governance on disability inclusion and Part 2 groups chapters concerning key priority of research-intensive universities: research. These chapters introduce new norms pertaining to disability inclusive research and analyse how U21 Network universities are responding. The Report then turns to policies supporting students with disabilities. This part includes chapters where universities are responding to the profound shifts in norms and laws pertaining to disability inclusion. In an often-overlooked area, Part 4 addresses how universities can and should be supporting their staff with disabilities. Finally in Part 5, this report includes chapters on digital, physical, and library services that are used by students, staff, and the wider community. In addition to mapping out policies, each chapter makes recommendations to enhance the impact of this report.

Although reports generally do not have impact until they are published, the process of producing *this* report has already led to positive impact.

Impact

Impactful change occurs when top down and bottom-up inclusion initiatives intersect. This is the reality on disability inclusion in the U21 Network.

The reality is that many of our universities are leading on inclusion, but many others operate in regulatory ecosystems where inclusion is less supported. The U21 Senior Leaders' Group has recognised and responded to the challenges by adopting in April 2024 the U21 Framework for Equitable and Inclusive Global Engagement.

In addition to adopting the U21 Framework for Equitable and Inclusive Global Engagement in April 2024, the U21 Senior Leaders' Group agreed to support the U21 Disability Inclusion Policy Mapping Initiative. When considering whether they should support this initiative, the U21 Senior Leaders' Group would have been aware that strategic, policy, and practical efforts on disability inclusion in higher education can be mixed. Despite the risk of adverse findings, the U21 Senior Leaders' Group decided to support this initiative and send a message that there is high-level commitment to identifying ways of doing better on disability inclusion.

By supporting the gathering of data from 30 member universities, the U21 Senior Leaders' Group have both sent a message across our communities that disability inclusion matters, plus provided tangible support to the gathering of data which has enabled this overview of current disability inclusion policies to be produced.

This top-down support was heard by people working in U21 Network member universities and has contributed to bottom-up efforts to respond to this opportunity and build lasting collaborations. Therefore, this report acknowledges the PhD staff members who contributed to authoring a thematic chapter.

The thematic groups that have come together have recognised the value in collaborating and thematic sub-groups of the U21 Disability Community of Practice have been proposed. Already this report is contributing to lasting change.

Lasting change in the policy delivery space has been created by providing examples of workable solutions that exist in U21 Network universities. The U21 Network provides an avenue where universities with identified best practices, can share their experiences directly with other member universities, and thus build stronger responses to inclusion across the U21 Network.

With respect to informing responses, the professional and academic staff involved in this analysis have drawn upon their expertise when analysing the data to help generate a large list of recommendations. The recommendations called for by the authors in this report would profoundly shift the teaching, staffing, service delivery, and research ecosystems in our institutions. Transformation of this magnitude does not occur in the short term; however, reports of this nature occur infrequently, thus some recommendations might be adopted in the short-term, whereas others will take more time.

Often recommendations are grouped by what is possible in the short, medium, and long term. The different situations of universities across the U21 Network, caused by differences in cultures and regulatory environments across over 20 countries and by universities themselves, means that segmenting recommendations by implementation timeframes is not viable. Instead, recommendations are grouped by the domains in the report so that those reviewing their position can more easily identify the recommendations most relevant to their needs.

Conclusion

To support the U21 Network and its university members to become disability champions of change, this report underscores the transformative potential of universities in fostering disability inclusion. By leveraging the collective strength of the U21 Network, we can drive significant advancements in creating inclusive educational, work and research and innovation eco-systems. This report not only highlights the current state of disability inclusion policies but also provides actionable recommendations to enhance these efforts.

The commitment from both top-down leadership and grassroots initiatives within our universities is crucial for sustained progress. As we continue to share best practices and collaborate across institutions, we can make meaningful strides towards a more inclusive society.

The work presented here is a testament to the power of commitment by those working in U21 Network universities and the U21 secretariat action and the dedication to improving how our universities operate and the lives of persons with disabilities. On disability, our universities train students with and without disabilities, employ staff with and without disabilities and produce research and innovation which can create a more inclusive world.

U21 is a place where we can come together to share, learn, and enhance our collective responses. Those responses will impact upon our universities, our U21 Network, to over 20 countries where our universities are situated and more broadly across the globe.

> Changing the world for the better starts with a single step. I believe this report is such a step.

Professor Paul Harpur OAM

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Executive summary

Between 15% and 20% of the world has a disability and in many of our universities more than 10% of our communities live with a disability.

Universities train the disability leaders of tomorrow, employ the disability leaders of today, and produces research and innovation that leads to a better and more inclusive world. Drawing upon existing policies and practices from Universitas 21 (**U21**) Network member universities, this report provides a pathway for our universities, separately and collectively through the U21 Network, to more effectively and efficiently realise our missions, and through this, do better at what we do best: **Create and share knowledge for the betterment of all**.

This report was made possible following the adoption of the U21 Framework for Equitable and Inclusive Global Engagement and the support from the U21 Senior Leaders' Group to support this initiative. With over 100 U21 staff volunteering, this report involved 30 member universities across over 20 countries, resulting in a comprehensive analysis of disability inclusion within the U21 Network. This report, led by Professor Paul Harpur, aims to support U21 universities in advancing equity, diversity, and inclusion (EDI) in the disability space.

This report contains 5 main parts, each focusing on a different aspect of disability inclusion in the university setting. While these standalone parts like this one are available for convenience, readers seeking further context and detailed recommendations should refer to the complete report. A consolidated list of recommendations is provided after the Executive Summary.

Part 1: Disability Governance Norms

This part explores the establishment of new norms on disability governance within the U21 Network. It emphasises the importance of fostering equitable partnerships among member universities and ensuring disability representation in governance structures. The report highlights the need for clear leadership roles, strategic integration, continuous improvement, and adequate funding to support disability inclusion initiatives. Additionally, it addresses the intersectionality of disability with other marginalised identities, such as Indigenous, LGBTQIA+, and age-conscious frameworks.

Part 2: Disability Inclusion and the Research and Innovation Ecosystem

Part 2 examines how U21 universities can align their research and innovation practices with the United Nations Convention on the Rights of Persons with Disabilities (CRPD). It underscores the importance of integrating CRPD norms into ethics and grant review processes, enhancing data collection, and implementing co-design methodologies. It also discusses the role of university research groups in championing disability inclusion and the need for comprehensive disability inclusion research and innovation, drawing from the best model at plans of inclusive practices It calls for increased representation of people with disabilities in research leadership roles and the establishment of formal benchmarks within institutional disability policies. For the sake of this report, the CRPD describes disability in Article 1 to "**include those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others.**"

Part 3: Creating an Inclusive Community for Students with Disabilities

This part focuses on the transition from reasonable accommodations to universal design and universal design for learning (UDL). It advocates for a proactive approach to designing inclusive educational environments that anticipate and remove barriers to learning. The report highlights the importance of enhanced outreach programs, pre-orientation and orientation programs, and accessible housing options for students with disabilities. Additionally, it addresses the need for clear access to disability support information for international and exchange students and the importance of tailored career counselling and work-integrated learning opportunities to support students with disabilities in their transition to employment.

Part 4: Universities Support for Staff with Disabilities

Examining the measures adopted by U21 universities to create disability-inclusive workplaces, this part discusses proactive measures to promote the recruitment and retention of staff with disabilities, the implementation of universal design, and the streamlining of reasonable accommodation processes. Part 4 also addresses the challenges faced by staff with disabilities who travel for work and recommends central funding for disability-related travel expenses, mechanisms for non-disclosure, and internal booking systems with accessibility information. Furthermore, it highlights the importance of awareness-raising activities, including mandatory training, inclusive events, and the development of comprehensive resources to support ongoing education and awareness efforts.

Part 5: University Services and Disability Inclusion

Part 5 explores the role of university services, including libraries and digital and physical spaces, in promoting disability inclusion. It emphasises the importance of integrating accessibility into all library policies and strategic planning, developing physical spaces and assistive technology, and providing ongoing training for library staff. The report also discusses the need for capacity building across university staff to ensure understanding and implementation of digital accessibility standards. It advocates for the development of digital inclusion roadmaps, publicising compliance and monitoring metrics, and partnering with other universities and software vendors to enhance digital accessibility. Additionally, it addresses the importance of establishing design guides and capital works plans for the built environment and creating dedicated positions, such as Campus Accessibility Officers, to oversee accessibility and inclusion initiatives.

Part 5: Report recommendations

The following consolidated list of recommendations is drawn from and referenced in the chapters of this report.

Part 5: University services and disability inclusion

Chapter 5.1. Libraries as opening access to information for persons with disabilities who are students, staff, or in the community

a) **Policy integration**: Embed accessibility into all library policies and strategic planning, aligning with institutional and national frameworks.

b) **Physical space design**: Develop physical spaces and assistive technology in a connected way to provide the most benefit to persons with disabilities.

c) **Assistive technology**: Increase the availability and accessibility of assistive technology in libraries, ensuring that these resources are well-publicised and easily accessible to those who need them.

d) **Staff training**: Provide ongoing training for library staff to ensure they are knowledgeable and responsive to the needs of clients with disabilities.

e) **Collaboration**: Foster close collaboration with clients with disabilities to ensure that services and spaces meet their actual needs.

Chapter 5.2. University Digital Spaces Becoming Disability Inclusive Spaces

a) **Capacity building**: U21 Network universities should look at capacity building across their staff bodies. Investing in the uplift of general awareness of digital technologies that can assist in higher education across staff will ensure understanding is embedded and a cultural norm. Whether this is best achieved via targeted training sessions, professional development programs or workshops should be assessed by each institution.

b) **Commitment and target to publicise compliance digital inclusion and monitoring metrics**: Given the variations across U21 Universities in history, number of Faculties, Schools or departments, and number of staff and students, different targets and compliance with Web Content Accessibility Guidelines (WCAG) may be appropriate. There should be however, a clear commitment and target to publicise compliance and monitoring metrics. Transparency in these efforts will foster a culture of accountability and continuous improvement.

c) **Digital inclusion road maps**: Where there is an aspiration to WCAG compliance or a higher level of WCAG, strategies and roadmaps must be developed to underpin and support the target. Strategies and roadmaps should be realistic and devoid of tokenism. Milestones, resourcing, and performance metrics should be included. Irrespective of target compliance, there needs to be a culture of universal design applied to digital spaces. A novel measure could involve creating a bug bounty program similar to those commonly used for security issues. Such an initiative would likely require funding to implement, but it could reward users who report replicable and fixable accessibility issues in digital spaces.

d) **Partnering**: Universities have a unique opportunity to partner not only with one another, but with the public, members of disability community, and software vendors to enact these — and other — changes. Partnering should include inter-university collaboration, where successful

strategies and tools for digital accessibility can be shared, as well as fostering relationships that can contribute to improvements. As universities produce research, these collaborations can also feed into joint research and development activities. Further, resource pooling can reduce costs and increase the efficiency of accessibility initiatives. As to public engagement, community involvement can provide valuable insights and feedback. In addition, awareness activities on digital inclusion can help advance the mission of universities to be a force for doing good for society. Finally, partnerships with software vendors can aid the development and implementation of accessibility features in digital tools and platforms. Universities may bring communities and skills together via such relationships, and by portraying people with disabilities as major clients, universities can use their buying power to motivate vendors to develop and implement commitments on inclusion.

Chapter 5.3. Property and facilities opening the doors of opportunity to persons with disabilities

a) **Design guides or briefing documents**: Establish policies and design guides or briefing documents aimed at built environment professionals that set clear objectives and standards for designers to strive for. These could establish protocols, such as co-design and consultation with staff and students with disability, and benchmark projects, either existing successful projects on campus or others the institution aspires to. If foundational expectations are not established and communicated, any building works run the risk of missing the mark and not being fit for purpose or flexible for further advancements and future social change. By not embedding aspirations beyond the building codes in briefing documents and policies from the very beginning of project initiation, universities are likely to have those design aspirations thwarted due to cost-cutting.

b) **Disability capital works plan**: Establish a capital works plan for upgrades with a dedicated budget and urgent timeframe that is not dependent on major projects. A full and comprehensive cost-benefit analysis should underpin this, accounting for the value brought about by making the campus and infrastructure inclusive of people with disabilities. Such improvements benefit everyone, not only those for whom the upgrades are designed. Two striking examples are kerb cuts and voice activation software (i.e. Siri).

c) **Consider disability broadly**: While many strategies focus on physical accessibility of the built environment, aspirations to enhance accessibility and inclusion need to consider a broader range of needs. While some gains in this area are being made, more needs to be done. For example, the provision of information about the noise levels and crowd density of various environments could make university campuses more inclusive.

d) **Review reasonable adjustment funding**: Review approaches to funding allocation for adjustments for students and staff with disabilities and apply an equity framework to ensure minimisation of systemic discrimination.

e) **A dedicated position**: Create a dedicated position such as a Campus Accessibility Officer to oversee and advocate for consideration of accessibility and inclusion in the built environment. This role would promote co-design throughout the whole process of addressing concerns and developing solutions and facilitate communication across different sectors of the university. For example, in the case of digital wayfinding and navigation, real change occurs when several departments have a deep understanding of the impacts of the maps on the wider community through stakeholder engagement with those directly involved as primary and secondary users of the platform. Opportunities for universities to collaborate and develop accessible wayfinding standards should be considered strongly, and such a position could be instrumental in promoting these.

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The below table includes the names, job titles and universities of all those who have made a tangible contribution to this report, whether as author, part of the Project Management Steering Committee, or as an individual who contributed to the success of the report.

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First Nations Acknowledgment

We recognise that due to the impacts of colonisation, Indigenous peoples are more likely to be living with disability and / or chronic illness compared to the wider population. This Review acknowledges the Traditional Owners of the lands and waters on which the 30 U21 Network universities are situated, and pays respects to their Elders, past and present.

The status of traditional owners of lands differs across the footprints of the U21 Network's 30 universities, and the lead author Professor Paul Harpur OAM is based at The University of Queensland (UQ) and thus will provide an acknowledgement which is more reflective of the traditional lands on which he and many authors work.

We would like to acknowledge the Traditional Owners and their custodianship of the lands on which UQ operates. We pay our respects to their Ancestors and their descendants, who continue cultural and spiritual connections to Country. We recognise their valuable contributions to Australian and global society.

The traditional owners acknowledged here include all those who are the traditional owners of the lands on which UQ operates. The UQ main campuses include 3 campuses in or around Brisbane city, being St Lucia, Dutton Park and Herston, as well as a campus at Gatton in the Lockyer Valley. The UQ geographical footprint includes off-campus sites with the Translational Research Institute, marine research stations at Heron and Stradbroke Islands, mineral research centre, seismograph station, veterinary and agricultural science teaching and research centres at Gatton, UQ Business School Brisbane City, social science research at Long Pocket, and teaching hospitals, health centres and other medical research facilities. The University's overseas establishments include UQ's North America office in Washington D.C., and the UQ-Ochsner Clinical School in Louisiana, United States of America.

Most students and staff are based in Brisbane city, which for tens of thousands of years was known by its traditional name, Meeanjin, which means "the place of the blue water lilies." Brisbane is the traditional home of the Turrbal and Yuggera peoples. UQ has geographic footprints on the lands of other traditional owners, and thus we also acknowledge:

- Bundaberg Rural Clinical School: Bailai, Gooreng Gooreng, Gurang and Taribelang Bunda peoples
- Gatton campus: Yuggera peoples
- Heron Island Research Station: Bailai, Gooreng Gooreng, Gurang and Taribelang Bunda peoples
- Hervey Bay: Butchulla people
- Meadowbrook - Yugambeh Speaking Peoples
- Moreton Bay Research Station and Redland Hospital - Quandamooka people
- Rockhampton Rural Clinical School - Darumbal People
- Veterinary Practice Dayboro - Kabi Kabi people

Method and approach

Paul Harpur and Brooke Szucs

Planning phase

This report has been made possible by the support of the U21 Secretariat and disability inclusion support within member universities. Efforts to build and strengthen collaboration on disability Inclusion was formalised in 2023 with the establishment of the U21 Disability Community of Practice.

When the U21 Senior Leaders' Group was developing the U21 Framework for Equitable and Inclusive Global Engagement they consulted with the U21 Disability Community of Practice. As part of this process, Professor Harpur proposed to the U21 Disability Community of Practice that he led a policy mapping initiative to advance the U21 Framework for Equitable and Inclusive Global Engagement. After consulting with the U21 Disability Community of Practice, as well as colleagues across the network, it was decided to seek support from the U21 Senior Leaders' Group in their April 2024 meeting in Hong Kong for a U21 Disability Inclusion Policy Mapping Initiative.

In their April 2024 meeting, the Senior Leaders' Group reiterated their commitment to advancing equity, diversity, and inclusion by adopting the U21 Framework for Equitable and Inclusive Global Engagement and by agreeing to support the U21 Disability Inclusion Policy Mapping Initiative to be led by Professor Paul Harpur.

Following approval by the U21 Senior Leaders' Group, Professor Paul Harpur reached out to Mr Paul Sheeran to benefit from his project management expertise. Paul Sheeran formed an Oversight Project Management Group which provided valuable support to this report's success. In particular, the Oversight Project Management Group assisted in the development of a project management plan to manage a project across 30 universities situated in over 20 countries, spread across all inhabited continents, with language barriers and multiple work groups at each university.

A draft of the project management plan was shared with the U21 Disability Community of Practice, as well as key groups within to gain feedback, including the Disability Collaboratory, the Disability Inclusion Group, and the Disability Inclusion and Advocacy Network. After implementing suggested changes, the project management plan was adopted.

The project management plan called for data to be collected via a survey and through a manual document collection process. To facilitate this, existing networks were used to gather U21 staff members to support in finalising the research tools, and to participate in the data gathering, analysis and writing of this report.

In addition to the Oversight Project Management Group, staff were sorted into teams aligned with the thematic chapters in this report. During the process some staff withdrew, and new staff joined the project. Those who made a substantive contribution to thematic chapters have been named as authors.

Data collection

The U21 Disability Policy Mapping survey

A literature review was performed by the project team to identify key themes. Drawing upon this, as well as decades of academic and professional experience, the research team co-designed the U21 Disability Inclusion Policy Mapping survey. The survey was piloted tested at and several questions were added which addressed policy questions confronting those who delivered disability inclusion interventions.

The U21 Disability Policy Mapping survey aimed to gather information on disability inclusion policies and practices across the U21 Network of universities. The survey contained 30 questions covering various aspects of disability inclusion. Topics covered included:

1. **Governance**: Structure and evaluation of disability inclusion efforts.
2. **Strategies**: University-wide strategic plans and specific disability inclusion plans.
3. **Research**: Disability inclusion research groups and strategies.
4. **Courses**: Availability of disability studies programs.
5. **Training**: Disability awareness training for students and staff.
6. **Data Collection**: Collection of data on students and staff with disabilities.
7. **Accommodations**: Policies for making accommodations for students and staff.
8. **Support Services**: Support provided by libraries, IT services, and facilities.
9. **Innovative Initiatives**: Examples of innovative disability inclusion initiatives.
10. **Contacts**: Points of contact for sharing findings and participating in the U21 Disability Community of Practice.

The survey sort qualitative responses and relevant documents to inform shared insights and public resources aimed at enhancing disability inclusion across the U21 Network.

Ethical clearance for this project was obtained from UQ under reference number 2024/HE001229. After ethics approval was secured, an invitation to participate in the U21 Disability Inclusion Policy Mapping Initiative was shared across the U21 Network along with invitations to complete the survey being emailed by the U21 Secretariat to their contacts within member universities. In addition, the survey was distributed by members of the U21 Disability Community of Practice to colleagues they knew, at their university and others in the U21 Network, who would be well-equipped to respond.

Manual searching

During the drafting of the survey tool, it was anticipated that the fragmented nature of disability inclusion policies across universities would result in incomplete responses. As anticipated, the fragmented nature of disability inclusion in universities made it challenging for staff members to provide full responses in all areas of the survey. Thusly, researchers from the thematic teams agreed to perform manual searches to ensure the data set was representative.

Often those working on the thematic chapters had engaged in policy searches of university websites for academic or professional purposes and thus were familiar with search protocols. Where this was not the case, the project lead was able to provide support.

In addition to relying upon staff assigned to thematic chapters, efforts were made to reduce challenges created by culture and language across the U21 Network. Professor Harpur used his ARC Future Fellowship funds to retain Ms Brooke Szucs, who speaks Japanese, German and Spanish, and Mr Nick Yao, who speaks all Chinese languages, to analyse documents and make direct contacts with U21 Network universities where these languages were the primary language of communication to elicit additional data.

Data collected

A total of 22 universities submitted to the survey, contributing data that formed the foundation of the analysis. The data provided in the survey included qualitative responses along with documents that were uploaded to the survey and in other cases links to policy and websites. Where websites were provided, the documents were downloaded. This process elicited over 300 policy artifacts - policy documents and websites that explains processes.

The survey data was gathered and distributed to the teams working on thematic chapters. A preliminary analysis of the data was performed and gaps identified. To fill the gaps identified, manual data was collected from university websites, as well as requesting staff of target universities support in the provision of data.

Data analysis

With the exceptions of chapters 1.2 and 2.1 which provide analysis of developing disability norms, and of chapter 1.5, on intersectionality, the approach to data analysis was the same in all other chapters. Even though the methods of chapters 1.2, 1.4 align with the method in this method chapter, the authors of those chapters desired to explain their methods in their chapters and thus those chapters include a method section.

The data was shared with the teams and support was provided to help narrow which documents were most relevant to each thematic team.

To understand how different universities approached disability inclusion in each area, and to help identify innovative and best practices, each team engaged in a comparative policy analysis over the documents. This involved examining how different universities address accessibility and support based upon the qualitative data provided in the survey, as well as in the policies and websites gathered. Those involved in the analysis drew from their personal expertise working in the relevant policy area, as well as drawing upon scholarship and disability norms. Through this process, recommendations were developed for each chapter.

The involvement of multiple authors resulted in some variation of language, due to differing theoretical perspectives, and some slight variation in how chapters are structured. We fundamentally believe that diversity is a strength and decided that these slight variations strengthened the report.

Progress was monitored through regular communications. Ultimately all the thematic chapters were placed in a single document and shared across those who co-authored chapters for comment and updating of their own thematic chapters. This process resulted in this final report that will be presented to the U21 Senior Leaders' Group in May 2025.

Part 5:
University services and disability inclusion

Chapter 5.1.

Libraries as opening access to information for persons with disabilities who are students, staff or in the community

Sasha Wells and Justine Cawley

Introduction

Libraries and library staff have a long-standing commitment to promoting equity, inclusion and accessibility within their collections, services and spaces to best meet the needs of their communities[1].

In 2 parts, this chapter will analyse the positive impact libraries have on individuals with disabilities within these communities. By examining responses to the U21 Disability Inclusion Policy Mapping Questionnaire and exploring the library policies and websites of U21 Network universities, we can gain insights into academic library efforts and best practice related to library and information access for persons with disabilities.

Part 1. Policies, goals and commitments in support of people with disabilities – examples of good practice from U21 libraries.

Generally, the current state of publicly available policies at the library or institutional level that formally dictate support services for persons with disabilities is inconsistent. Many U21 organisations show their commitment to disability and inclusion support by sharing strategies, goals, and services on their library websites, even in the absence of formal policies. These services often include access to assistive technology, accessible study spaces, book retrieval and alternative format services. Among these are some exemplars of good practice.

The University of Glasgow is an example of a U21 Network university with their own library-specific policy to ensure equal access to services and collections for people with disabilities.[2] The library's disability policy is separate to but informed by the University's Equality and Diversity Policy and strengthened by its alignment with national legislation (the *Equality Act 2010*).[3] In addition to demonstrating a strong commitment to inclusion, the policy explicitly outlines practical accommodations and supports to create clarity and certainty for library users with disabilities. The library has a Disability Co-ordinator as a clear point of contact and the policy's inclusivity extends to welcoming assistance dogs and carers. Additionally, the policy includes a commitment to frontline staff training to ensure staff are knowledgeable and responsive.

Another positive example is The University of Queensland's Library, which demonstrates a strong commitment to ensuring equitable access to library spaces and resources for clients and community members with disabilities.[4] This includes providing accessible facilities such as height-adjustable desks and low stimuli spaces (low-light, quiet and soundproof) options. The Library also supports obtaining alternative formats for learning resources and offers personalised assistance from library staff with tasks like wayfinding and book retrieval. Additionally, the Library participates in the Hidden Disability Sunflower program, signalling to their community that staff recognise and support clients with invisible disabilities, therefore fostering a more inclusive library environment.

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1 Ashiq, M., Ur Rehman, S., & Warraich, N. F. (2023). A scientometrics analysis of equity, diversity, inclusion, and accessibility (EDIA) literature in library and information science profession. *Global Knowledge, Memory and Communication*. https://doi.org/10.1108/GKMC-12-2022-0298

2 University of Glasgow Library. (n.d.). *Disability policy*. https://www.gla.ac.uk/myglasgow/library/about/disabilitypolicy

3 University of Glasgow. (n.d.). *Equality and diversity policy*. https://www.gla.ac.uk/myglasgow/equalitydiversity/policy/equalitypolicy

4 University of Queensland Library. (n.d.). *Support for clients with disability*. https://web.library.uq.edu.au/study-and-learning-support/support-clients-disability

Similarly, Universitas Gadjah Mada (UGM) Library and Archives makes a positive statement to their communities by providing a range of accessible facilities such as wheelchair ramps, accessible toilets and dedicated disability rooms.[5] On their website, UGM highlights their alignment with the United Nations Sustainable Development Goals (SDG)[6]particularly Goal 10, which aims to reduce inequality.

These examples demonstrate that aside from formal policies, organisational goals and strategies can effectively drive progress relating to inclusion in libraries. They provide a framework for positive action and can lead to delivering initiatives that benefit communities in ways that policy alone might not specify.

Part 2. Assistive technology spaces in U21 libraries

In recent years, libraries worldwide have increased efforts to be inclusive of the communities they serve and provide more equitable access, recognising their own potential to help break down barriers for people with a disability by providing access to assistive technology in purpose-specific spaces within their locations.

Among U21 questionnaire respondents, more than half are providing their communities with access to specific assistive technology spaces, although in some cases the library is not the location for this. Commonly, use of these rooms is restricted to students who are registered with appropriate support services at the institution. In addition to assistive technology rooms, some libraries provide low sensory spaces for clients with disabilities although in many cases these are separate spaces, rather than combined.

The University of Nottingham's libraries have created multiple assistive technology hubs across their campuses, ensuring that students have access to necessary tools regardless of which library they use. Their approach includes dedicated quiet spaces with assistive technology and bookable individual study rooms with specialised equipment.

McMaster University Library's Campus Accessible Tech Space (CATS) is an example where sensory and accessibility needs are both met.[7] As well as compliance with physical accessibility and assistive technology provision, these spaces incorporate features to assist with sensory overwhelm that can occur in busy library spaces. Features include being scent-free, located in a quiet section of the library with sound-dampening furniture, and equipped with access to games and activities to assist with stress management. To help meet demand and provide support McMaster University Library employs a coordinator and assistant specifically for their accessibility services.

The University of Connecticut's library has addressed sensory requirements of their community with the creation of "Quiet Floor" spaces that go beyond traditional silent study areas to include features designed for users with sensory sensitivities, including blocking mobile phone reception.

Recommendations

(a) **Policy integration:** Embed accessibility into all library policies and strategic planning, aligning with institutional and national frameworks.

(b) **Physical space design:** Develop physical spaces and assistive technology in a connected way to provide the most benefit to persons with disabilities.

5 Universitas Gadjah Mada Library. (n.d.). *Disability-friendly facilities make everyone happy*. https://lib.ugm.ac.id/en/disability-friendly-facilities-make-everyone-happy/

6 United Nations. (n.d.). *Sustainable development goals*. https://sdgs.un.org/

7 McMaster University Library. (n.d.). *Library accessibility services: Campus accessible tech space (CATS)*. https://library.mcmaster.ca/campus-accessible-tech-space-cats

(c) **Assistive technology:** Increase the availability and accessibility of assistive technology in libraries, ensuring that these resources are well-publicised and easily accessible to those who need them.

(d) **Staff training:** Provide ongoing training for library staff to ensure they are knowledgeable and responsive to the needs of clients with disabilities.

(e) **Collaboration:** Foster close collaboration with clients with disabilities to ensure that services and spaces meet their actual needs.

Conclusion

Academic libraries are making significant strides in improving accessibility for persons with disabilities within their communities, providing substantial benefits to their institutions. Successful approaches combine policy frameworks with practical support services, clearly articulated strategies, and commitments to ongoing improvements.

The future of library accessibility will likely see increased integration of new technologies and continued development of inclusive spaces and services. Achieving success in this area requires ongoing commitment, regular assessment, updating of services, and close collaboration with clients with disabilities to ensure that services meet actual needs.

Chapter 5.2.

University Digital Spaces Becoming Disability Inclusive Spaces

Brett Crunkhorn, Carolyn Novello, Joshua Hori, Ky Lane, and T.H. Tse

Introduction

The digital world we live in, and the COVID-19 pandemic, has seen a proliferation of digital spaces adopted in the higher education sector. However, not all digital spaces are created equally. Drawing upon the responses provided by the U21 Network universities to the survey, and upon the contacts and personal experiences of the authors, this chapter aims to do the following:

- Explore the current state and extent to which universities are resourced to make their digital spaces accessible and inclusive.
- Analyse both qualitative data and strategic documents provided by U21 Universities, including adherence to accessibility guidelines.
- Identify gaps and provide recommendations for maximising digital accessibility in the higher education sector.

Part 1. Specialist Staff Supporting Digital Spaces

The approach to resourcing varies across U21 Universities. Multiple institutions have dedicated web or digital accessibility officers employed within their Information Technology (IT) team. The presence of these dedicated roles indicates a recognition of the importance of digital accessibility and a commitment to ensuring it is addressed by specialist staff. While these dedicated roles are likely beneficial, it might also indicate that other staff members are not sufficiently trained or aware of digital accessibility issues. This risks over-reliance on a few individuals and potentially limits the overall effectiveness of these resources.

U21 institutions show that they overcome this risk by adopting either collaborative or distributed approaches to resourcing. The collaborative approach described by University of Birmingham and The University of Sydney may help ensure that digital accessibility is integrated across the universities. The University of Hong Kong adopts a distributed approach, with tasks disseminated among the Equal Opportunity Unit, IT Services, the Centre of Development and Resources for Students, and various academic schools and departments. Similarly, McMaster University has a comprehensive support system that spans multiple departments. The distributed approach may lead to more effective and coordinated efforts, although it risks fragmented support. University of California, Davis further supports its resourcing efforts by using collaborative procurement to lower costs of training and tools.[8]

Overall, these examples suggest that U21 Universities see the value in digital accessibility and are taking structured approaches to ensure it is implemented and available.

[8] It's worth noting the inherent challenges of any reliance on third party-products that are externally controlled and who may not always share or continue to commit to the same accessibility targets.

Part 2. Web Content Accessibility Guidelines

"Web accessibility isn't just for people with disabilities, it is an initiative to improve the quality of the internet for every user."[9] This messaging is a key principle of universal design.[10] [11] The Web Content Accessibility Guidelines (WCAG) aim to create "a single shared standard for web content accessibility that meets the needs of individuals, organisations, and governments internationally."[12] This global standard includes testable success criteria with universities often setting target levels for compliance or having their compliance driven by government policies.[13]

Many U21 Universities indicate they are committed and actively working towards meeting WCAG. Aspirational levels of compliance and support among U21 institutions vary, ranging from developing a strategy to align with WCAG standards, to achieving A, AA, and AAA levels. It would be interesting to understand the differences in approach to compliance testing. To measure compliance, many U21 Universities seem to favour automated testing over practical or direct functional testing. Although the distinction is subtle, it reflects the maturity and accuracy of compliance efforts.

The ideal would be for all institutions to achieve AAA compliance; however, it's important to recognise that WCAG is just one measure of accessibility and universal design. A lower level of WCAG commitment or adoption, when viewed in isolation, may not accurately reflect a university's overall dedication and commitment to accessibility. It is essential to consider other factors, such as equitable access and digital literacy training to fully assess overall inclusivity of a digital environment. For example, The University of Queensland has launched a project aimed at achieving universal design. While it is committed to meeting WCAG compliance, UQ's broader goal is to create products and environments that are accessible and usable by everyone, regardless of individual differences.

Part 3. Public Accountability

Having open forum assurance on how closely a digital environment aligns with a desired WCAG target is preferable as it likely represents a high level of maturity, dedication and empathy towards to the target.

The levels of maturity and approaches to assurance and accountability of desired WCAG targets vary in U21 Universities. For example, University of Birmingham and University of California, Davis use accessibility and quality assurance platforms, while McMaster University conducts annual surveys. The University of Hong Kong assures the WCAG targets through accessibility policies for web development by internal departments and external vendors. While The University of Sydney indicated it participates in assurance activities. Curiously, none of the responses indicate that any U21 Universities publish results of assurance activities publicly.

While there is excellent work being done to comply and align with WCAG, assurance is not transparent. This is a missed opportunity in ensuring that digital accessibility is not only being met but also continuously improved.[14] Further, publicising this information can build trust with the disability community.

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9 Filipe, F., Pires, I. M., & Gouveia, A. J. (2023). Why web accessibility is important for your institution. *Procedia Computer Science, 219*, 20–27. https://doi.org/10.1016/j.procs.2023.01.259

10 United Nations Department of Economic and Social Affairs. (n.d.). *Convention on the rights of persons with disabilities (CRPD).* United Nations. https://www.un.org/

11 Nielsen, E., & Pedersen, S. (2022). Enabling spaces: rethinking materiality and the invitational character of institutional environments. *International Journal of Environmental Research and Public Health, 19*(9), 5577. https://doi.org/10.3390/ijerph19095577

12 Web Accessibility Initiative (WAI). (n.d.). *WCAG 2 overview: world wide web consortium (W3C).* WCAG 2 Overview | Web Accessibility Initiative (WAI) | W3C

13 Both the University of Glasgow and The University of Queensland refer to government policy driving compliance and minimum levels.

14 McMaster, C. & Whitburn, B. (Eds.). (2020). *Disability and the university: A disabled students' manifesto* (1st ed.). Peter Lang Publishing.

Recommendations

(a) **Capacity building:** Universities should look at capacity building across their staff body. Investing in the uplift of general awareness of digital technologies that can assist in higher education[15] across staff will ensure understanding is embedded and a cultural norm. Whether this is best achieved via targeted training sessions, professional development programs or workshops should be assessed by each individual institution.

(b) **Commitment and target to publicise compliance digital inclusion and monitoring metrics:** Given the variations across universities in history, number of faculties, schools or departments, and number of staff and students, different targets and compliance with WCAG may be appropriate. There should be however, a clear commitment and target to publicise compliance and monitoring metrics. Transparency in these efforts will foster a culture of accountability and continuous improvement.

(c) **Digital inclusion road maps:** Where there is an aspiration to WCAG compliance or a higher level of WCAG, strategies and roadmaps must be developed to underpin and support the target. Strategies and roadmaps should be realistic and devoid of tokenism. Milestones, resourcing, and performance metrics should be included. Irrespective of target compliance, there needs to be a culture of universal design applied to digital spaces. A novel measure could involve creating a bug bounty program similar to those commonly used for security issues. Such an initiative would likely require funding to implement, but it could reward users who report replicable and fixable accessibility issues in digital spaces.

(d) **Partnering:** U21 Universities have a unique opportunity to partner not only with each other, but with the public, members of disability community and software vendors to enact these — and other — changes. Partnering should include inter-university collaboration, where successful strategies and tools for digital accessibility can be shared, as well as fostering relationships which can contribute to improvements. As universities produce research, these collaborations could also feed into joint research and development activities. Further, resource pooling can reduce costs and increase the efficiency of accessibility initiatives. With respect to public engagement, community Involvement can provide valuable insights and feedback. Additionally, awareness activities on digital inclusion can help advance the mission of universities to be a force for good in society. Finally, partnerships with software vendors can aid in the development and implementation of accessibility features in digital tools and platforms used by universities. Universities bring communities and skills to such relationships, and as major clients, universities can use their buying power to motivate vendors to develop and implement commitments on inclusion.

Conclusion

University digital spaces becoming disability inclusive spaces is achievable but arguably not yet fully embedded in institutional culture and practices, and certainly not approached consistently across U21 Universities. The findings above provide confidence that university digital spaces are striving towards disability inclusive spaces. The variations in progress of digital spaces becoming disability inclusive spaces may be natural, due to the uniqueness of each institution. However, with a concerted effort towards capacity building, transparency, and strategic planning, universities can create more inclusive digital environments for all users.

15 Degtyareva, V. V., Nikitenko, E. V., & Degtyareva, T. N. (2024). Requirements and principles of designing online course for students with disabilities in the modern digital space of the university: theoretical analysis. *Perspectives of Science and Education, 67*(1), 388–403. https://doi.org/10.32744/pse.2024.1.21

Chapter 5.3.

Property and facilities opening the doors of opportunity to persons with disabilities

Amy Thompson, Danielle Burgess, Imogen Howe, and Merrill Turpin

Introduction

In contemporary tertiary education, the importance of both physical and digital accessibility of university campuses cannot be overstated. These dimensions intersect to shape the overall inclusivity and experience of the higher education and research environments in which people participate in university life, study, work, research and academic opportunities. Physical accessibility, encompassing the design of buildings, classrooms, and other campus facilities including transportation services, is vital for equity for staff and students with disability. Similarly, digital applications to aid navigation and wayfinding, which are increasingly used to support campus navigation in addition to physical signage, are essential for cultivating a culture of inclusion that reflects the diverse needs of all. This chapter explores the vital role that the built and digital environments play in shaping a truly inclusive tertiary experience and discusses best practices for implementation in these areas, with examples from U21 universities.

Part 1. Inclusivity and accessibility of the built environment

The breadth of student / staff experiences must be considered when addressing the built environment, with the aim of promoting inclusion and equitable experiences for all people, regardless of abilities. U21 universities are clearly committed to accommodating students and staff with disability. Most universities express this as a commitment to teaching and learning; however, universities do more than just teach. In addition to teaching, universities are major employers, produce research and innovation and provide buildings and other resources which are used by the general public. One institution emphasised the importance of providing support for 'living' and 'independence', beyond simply teaching and learning. This is a salient point when considering the human rights for persons with disability, including the right to participate equally in daily life. It is crucial for universities to consider what constitutes 'daily life' for university students and staff and the fundamental experience of being at a university for study, work or as a visitor. University life can be about friendship and extracurricular activities as well as research, work, networking and collegial collaboration. The built environment can powerfully contribute to positive experiences of university.

When reviewing policies relating to the built environment, one significant issue identified is the lack of specificity regarding language and expectations for inclusion. For example, the way words such as 'access' and 'accessibility' are defined and used is not consistent. Legal definitions of accessibility tend to suggest that accessibility means the extent to which an individual can access and use an environment without barriers. While this language clarifies the rights of an individual, it is not helpful in determining the specifications for building design because it is too broad and vague – built environments are rather concrete, literally. What constitutes 'accessibility' for one person might not be 'accessible' for another. Something that facilitates use for one individual might prohibit use for another. 'Accessibility' for a building surveyor or certifier may simply mean compliance with the legislated building codes and accessibility standards referenced within those. Such codes are highly proscriptive but also restricted. As such, when universities include aspirations for 'accessibility' of the built environment in their strategic planning documents, it is critical to establish parameters to guide built environment professionals toward what they hope to achieve.

Building codes are important when providing information regarding disability access requirements and / or adherence to universal design principles to staff and contractors responsible for

construction of new builds and refurbishment of existing buildings, access ways, and the landscaped environment. Most U21 universities indicate having policies and protocols in place to address the disability access requirements of any such projects and identify that contractors are required to adhere to legislation that establishes minimum standards for accessibility such as building codes, anti-discrimination legislation and design standards for accessibility or neurodiversity. McMaster University cites the Accessibility for Ontarians with Disabilities Act (AODA) in all procurement documentation with vendors and contractors. The Ontario Building Code must also be adhered to with reference to the accessibility requirements, and the pending McMaster University Accessible Design Standards will provide further guidance for building and facility work related to accessible infrastructure. In the UK, the University of Nottingham requires consultant design teams and contractors to design new buildings and refurbishment projects in accordance with UK Building Regulations, British Standards and UK legislation. However, this university allows for best practice evolution through identification on a case-by-case basis of exceeding the standards where additional needs or more complex issues are required to be addressed.

Some universities have developed design guides which establish the expectations for minimum standards in construction. For example, the University of Birmingham has an Inclusive Design Guide to support accessibility design principles. The University of Nottingham has a neurodiversity design guidance document available to contractors and design teams. However not all U21 universities have included accessibility or inclusion standards beyond statutory compliance within these guides. This is important because building codes and standards are minimum requirements usually set at a national scale and do not account for the nuances of university occupants or the core values of the institution. Furthermore, building codes do not account for the full variety of disabilities represented in society, generally focussing on mobility or visible disabilities.

Two Australian universities, The University of Sydney and The University of Queensland, follow specific codes and Australian Standards (AS1428.1) to address accessibility at their campuses. The Disability Discrimination Act (1992) is referred to for all construction projects. However, it is worth noting that compliance with the DDA does not mean the environment is accessible to all and this is where Australian universities would benefit from lessons learned in the overseas institutions where a position exists for the purpose of advocating for true accessibility, and not merely code compliance.

Some U21 universities report appointing specific individuals to champion accessibility and disseminate information to contractors. For example, the University College, Dublin, has a Campus Accessibility Officer and Working Group on Campus Facilities. The University of Birmingham utilises an Estates Accessibility Officer position to provide guidance and information to staff and contractors responsible for campus construction. This position belongs to the Accessibility Oversight group which provides feedback ahead of project implementation. These examples demonstrate how universities can implement small changes to governance frameworks within the construction departments to facilitate accessibility for most campus attendees.

Challenges and Barriers to Creating Inclusive University Built Environments

A shortcoming reported by U21 universities is the limited roll out of campus improvements. It appears that, while accessibility is prioritised in principle, the implementation of substantive changes to established built environments remains slow and somewhat superficial and is perhaps not as progressive or comprehensive as necessary to fully accommodate the needs of all individuals with disabilities.

Some universities report a barrier created by siloing in the sources of funding available for different areas of accommodations for students and staff with disabilities. For example, if the accommodation or adjustment required is related to teaching and learning, then funding might be allocated from a school or department budget. However, if the adjustment required relates to the

estate, then the funding might come from a different budget (e.g. capital works). Where funding is allocated at the local level, while accommodations will be targeted to specific needs, the availability of accommodations will be limited. In contrast, centralised funding may mean that solutions implemented at a local level may be able to be deployed elsewhere, so that the benefits are shared across the university. However, such solutions may not always be relevant or appropriate more broadly. A major problem with centralisation is that it often results in additional levels of bureaucracy. While solutions are likely to be more robust, permanent and benefit more people, these processes are often excruciatingly slow. This compromises the timeliness for the individuals who desperately need them.

Co-design

One strategy for addressing accessibility and inclusion is co-design. This refers to involving people with disability in the entire process from initiation to completion of solutions. For example, the Universitas Gadjah Mada (UGM) supports the notion of having someone in a position of influence for accessibility consultation and ensures that co-design is engaged with through persons with disabilities being involved in the entire project process to enhance equitable access for all. The modifications described by U21 universities, which include the installation of ramps, handrails in elevators, improvements to toilet facilities, and the increased provision of Braille instructions, suggest a foundational approach to accessibility, one which is already established in legal requirements. Co-design with members of the university community with disability can help to set benchmarks and clarify goals for inclusion – not just compliance.

Part 2. Digital access to the built environment

Universities use a range of digital approaches to aiding navigation and wayfinding for individuals with various disabilities, with some implementing or developing robust systems for accessible navigation. For example, the University of Zurich is exploring comprehensive smartphone-supported indoor navigation options. It uses a web portal containing specific information about the accessibility of individual university buildings. McMaster University offers an online map featuring details such as marked parking and accessible entrances. In the UK, several universities provide campus maps online and through mobile apps in collaboration with AccessAble. The University of Sydney employs the MazeMaps platform, which is accessible to all users and regularly updated from the university's master space database to ensure it remains current. Several universities report providing their maps as PDFs online. However, online PDFs often have small fonts that can be difficult to read, potentially causing time consumption, stress, and emotional distress. It is worth noting that the ability to provide real-time updates is dependent on the effective and efficient management of data being delivered to system users through clear feedback loops and data integrations. McMaster reported displaying changed access due to building works, reducing the navigational distress and time required to self-redirect. However, the limitation to all probable solutions is the quality of the input and data. Without effective and efficient data management systems, map updates cannot reflect the real world, whereby the lived experience of map users and those navigating a campus is incongruent.

Three commonly used digital navigation platforms are AccessAble, MazeMaps and NaviLens. AccessAble is a platform that provides information to users about the accessibility of venues located in the UK and Ireland. Several UK-based universities have provided accessibility information of their campuses to be included on the platform.

MazeMaps is a platform used by several Group of 8 (Go8) universities in Australia and further afield. This platform is limited in its wayfinding for accessible pathways and is engaged in a project with a focus on co-design to support advancements in accessibility and digital wayfinding. A core limitation to this platform relates to turning on the "avoid stairs" function to make the pathways

accessible. The issue is that it only relates to the physical environment and does not take into consideration the experience of the person with a disability navigating the sometimes-challenging topographical elements of traversing a campus. In contrast, effort-based mobility mapping could be utilised by universities to allow individuals to make decisions with a greater understanding of the expected effort required to get from point A to point B, thus reducing ambiguity and distress.

NaviLens is an example of technology that gives agency back to the user. It is an app designed for visually impaired people that allows the user to scan a simplified code from up to 15 meters away without needing to know precisely where they are placed. They simply hold up their phone and move it around. The information is then contextualised into directions, and users have described this as "like having someone to guide you."[16] The app is stylistically minimalist to support ease of use and is 100% user friendly.

The experience of most universities is that there is a strong disconnect between having the data available in a map and the accuracy of this data. While some maps highlight wheelchair-friendly paths, not all do, reflecting varying levels of accessibility. Despite these advancements, challenges persist in maintaining the accuracy of these maps, and the inclusion of all necessary details to ensure they meet the diverse needs of the community. As with the built environment, some universities have advocated for or appointed a Campus Accessibility Officer to oversee initiatives. This person can work alongside the departments responsible for map data (i.e. Information Technology and Property and Facilities) to provide universities with a dedicated advocate who can utilise co-design principles in platform development. At The University of Queensland, a project officer undertakes this responsibility within the Property and Facilities team.

Physical Signage

In addition to digital maps, physical signage is also important. Wayfinding and campus navigation extends to the individual rooms that students, staff and visitors need to find, often in short timeframes (e.g. navigating from one side of the campus to the other to attend a lecture). Identification of what technology exists inside a room is key for those with visual and auditory impairments. Signage for hearing loops with Braille embedded in the sign is a good example of wayfinding that extends beyond the 2-dimensional field.

High contrast signage and large fonts enhance accessibility and inclusion on campus. Implementing signage and wayfinding design standards ensures equitable use of appropriate signage across campus.

Recommendations

- **Design guides or briefing documents:** Establish policies and design guides or briefing documents aimed at built environment professionals that set clear objectives and standards for designers to strive for. These could establish protocols, such as co-design and consultation with staff and students with disability, and benchmark projects, either existing successful projects on campus or others the institution aspires to. If foundational expectations are not established and communicated, any building works run the risk of missing the mark and not being fit for purpose or flexible for further advancements and future social change. By not embedding aspirations beyond the building codes in briefing documents and policies from the very beginning of project initiation, universities are likely to have those design aspirations thwarted due to cost-cutting.
- **Disability capital works plan:** Establish a capital works plan for upgrades with a dedicated budget and urgent timeframe that is not dependent on major projects. A full and

16 NaviLens. (2019, March 1). *Introduction and user testimonials NaviLens* [Video]. YouTube. https://www.youtube.com/watch?v=xcCGxnqAqcw

comprehensive cost-benefit analysis should underpin this, accounting for the value brought about by making the campus and infrastructure inclusive of people with disabilities. Such improvements benefit everyone, not only those for whom the upgrades are designed. Two striking examples are kerb cuts and voice activation software (i.e. Siri).

While many strategies emphasise physical accessibility of the built environment, enhancing accessibility and inclusion requires addressing a broader range of needs. Despite some progress, more efforts are needed. Providing information on noise levels and crowd density can make campuses more inclusive.

- **Review reasonable adjustment funding:** Review approaches to funding allocation for adjustments for students and staff with disabilities and apply an equity framework to ensure minimisation of systemic discrimination.
- **Create a dedicated position:** Create a dedicated position such as a Campus Accessibility Officer to oversee and advocate for consideration of accessibility and inclusion in the built environment. This role would promote co-design throughout the whole process of addressing concerns and developing solutions and facilitate communication across different sectors of the university. For example, in the case of digital wayfinding and navigation, real change occurs when several departments have a deep understanding of the impacts of the maps on the wider community through stakeholder engagement with those directly involved as primary and secondary users of the platform. Opportunities for universities to collaborate and develop accessible wayfinding standards should be considered strongly, and such a position could be instrumental in promoting these.

Conclusion

As this chapter illustrates, the creation of accessible and inclusive university environments is a commonly held aspiration. To be truly accessible is to be attentive to the needs of all and committed to developing teams that plan, monitor, report, and act on changes. Co-design is crucial for understanding what needs to be included in these systems and the risk of spending unnecessary money, time and resources without engaging with the correct stakeholders is one that universities should take seriously. Afterall, the core business of a university is to provide an environment where students, staff and visitors can feel safe, welcomed and included.

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