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Developing Accessible urban spaces for Persons with Disabilities in contemporary cities and future Smart Cities in India

-(Author: Parul Sharma)
Global Accessibility Consultant

Summary

The challenges of the new society are the challenges of the city. The majority of the world's population already lives in cities and this proportion only continues to rise. Therefore, cities are places where all the challenges and contradictions of the social human system emerge. Cities are where we witness everything in its most exaggerated manner - all the different conflicts of society. Whether we are talking about the future of work or the future of the social contract, all of the big issues are perfectly represented in the new urban reality. The present research paper articulates at the Equity, Justice and the Digital Transformation of the Built Environment in contemporary and the future smart cities in India. The paper examines scholarly literature on the existing planning policies, plans and institutions for promoting accessibility of persons with disabilities in urban areas. It further highlights how urbanization offers to unlock human potential as it brings forward economic and social benefits, it also brings significant demographic, political, and equity challenges. The paper further investigates whether and how planning agencies look after the spatial planning and development needs of persons with disabilities in India. The research paper has been prepared with hypothesis as whether city plans are sensitive to accessibility considerations of persons with disabilities. The primary research question remains to investigate that how can the accessibility for persons with disabilities be realized within the existing planning frameworks and practices in the Indian cities and how can planning be made more sensitive to the issues of accessibility of persons with disabilities in the Indian urban context.

Introduction

The urbanization of the world's population is accelerating. Half of the world's citizens already live in towns and cities, and within the next 50 years, that proportion will rise to more than two-thirds. Forecasts show that the overall growth of the world's population and the ongoing gradual shift from rural to urban areas will add another 2.5 billion people to urban areas by 2050.1 This rate of urbanization translates to more than 87 million people moving into cities each year.

According to The United Nations Convention on the Rights of Persons with Disabilities (UNCRPD), the most pressing issue facing persons with disabilities worldwide is not their impairment but rather social, physical, and institutional barriers that limit their rights and freedoms and human agency. We must seek to improve equity, justice, and structural inequality in digital transformation. Without clear leadership, evidence, and authentic engagement, public sector leaders may unwittingly be accelerating endemic barriers in mobility, education, employment, public health, and human rights. The lessons of the COVID-19 pandemic have driven home one clear message: the provision of essential city services to all citizens must be maintained to protect the wellbeing of those most at risk, including persons with disabilities and older persons.

This paper explores how digital transformation in cities can help us maximize the human potential contained within urban environments and assist in expanding how marginalized communities can participate and engage with the people and services of their cities. As our cities are transformed into Smart Cities via the ongoing digital transformation of all industries and sectors of society, we must take advantage of human rights policies and the best design principles to build more innovative, resilient, and inclusive cities for all.

Urbanization and initiatives of Government of India

Urbanization has the potential to act as a catalyst for achieving sustainable and inclusive development for all by promoting accessibility following universal design approaches and by mainstreaming disability inclusion. Urban environments, facilities, and services can facilitate access, meaningful participation, and inclusion of all population groups and communities, including under-represented groups of persons with disabilities. The COVID-19 pandemic has further highlighted the need for accessibility and the essential role of local governments and communities in addressing inequalities. Urban policy makers thus recognize the critical need to leave no one behind (LNOB) in all areas of sustainable urban development.

As per National Census 2011, India has approximately 2.68 crore persons with disabilities which amounts to 2.21% of the total population. With an estimate of around 25% of India's population needing universal accessibility to live independently and with dignity, there is a clear need to emphasize 'accessibility and inclusion' in the urban environment. Universal Design principles and rights of persons with disabilities need to be considered at all levels of a policy or project cycle - at the design, planning, budgeting, procurement, implementation, and monitoring and evaluation stages.

Towards this vision, the Government of India has ratified the United Nations Convention on the Rights of Persons with Disabilities (UNCRPD) which acts as a legal and human rights instrument to strengthen the socio-economic development and meaningful participation of persons with disabilities. The government has further promulgated the Rights for Persons with Disabilities Act, 2016 (RPWD Act) which emphasizes accessibility in transportation infrastructure, public buildings, new constructions, sanitation facilities, educational institutions, and digital information, products, and services. The Government of India also launched the Accessible India Campaign (AIC) in 2015 with specified targets and timelines for making Indian cities accessible for persons with disabilities. The three main pillars of the campaign are the Built-Up Environment, Transportation Systems, and Information & Communication (ICT) ecosystems.

In view of above, it is necessary that the urban infrastructure, amenities, and public spaces often lack the fundamental aspects of inclusive design for equal access to all. Significant gaps also exist in data collection and management and spatial assessments from the lens of disability inclusion. The existing legislation must be translated into holistic projects informed by the needs and demands of persons with disabilities for local implementation.

The Need for Accessibility

Equity is increasingly a vital component of the digital transformation required to create more inclusive and just Smart Cities. But equitable cities are about more than just providing access to new technologies; they extend right back to the essential planning and design decisions that occur throughout the development and expansion of cities.

Equity within cities is part of the more significant challenge to promote social justice by expanding opportunities for all people, especially for people with disabilities, older persons, or those adversely affected by policies that cause racial or economic exclusion. Governments, institutions, decision makers, and city leaders are responsible for reducing inequity by prioritizing the needs of those in society who are routinely excluded from accessing urban environments or services within their cities.

The COVID-19 pandemic has also exacerbated the forces that control the ability of people to participate in their cities and people's wellbeing in general. They have exposed areas of weakness within institutions and services (such as Barriers to accessing health care, accessible information, accessible transportation, etc.) that become absolute priorities for people facing immediate concerns. The pandemic also presented us with a range of responses in different cities worldwide, some that have proven far more successful than others.

Disability and Inclusive Development

Around the world, nearly a quarter of the global population faces barriers accessing their cities due to age or disability. Approximately 15 percent of people globally have a disability, and this proportion will only continue to rise due to ageing demographic trends, which is a result of declining fertility and better healthcare are causing elder shares to rise across advanced economies and many emerging market economies because of rising life expectancy and declining fertility, although at different rates. More than half of all persons with disabilities live in towns and cities. By 2030, this number is estimated to swell to between 750,000 - 1 billion.3

In 2017, the population over the age of 60 was already approaching 1 billion people4 out of which, 46 percent are defined as having one or more disabilities.5 This demonstrates the significance of the overlap between older persons and those with a disability. In 2030, the population over 60 will rise to 17 percent of the projected global population and by 2050, it will be 21 percent of the population.

Therefore, this increase in the proportion of the population over the age of 60, will be accompanied by a corresponding increase in the proportion of people who live with a disability. Advances in medicine and the emergence of assistive technologies means that more persons with disabilities are leading diverse and productive lives.6 This prevalence will continue as more life saving and life extending technologies are developed.

Advances in medicine and the ageing demographic mean there are more people with disabilities that are able to live longer and more productive lives. The prevalence of those living with one or more types of disability will continue to increase as new life-saving technologies are developed and people remain active into older age. Making cities age-friendly is an effective policy response to an ageing population and ensures that physical and social environments exist that enable people to live healthy, independent, and autonomous lives into older age. Key steps to create age-friendly cities is by engaging in a participatory process of assessing the age-friendliness across various sectors (health, infrastructure, etc.), collaboratively planning and implementing change, and monitoring progress in partnership with older people and other key stakeholders.

Globally, persons with disabilities face dramatically higher poverty rates than the overall population. In some countries, poverty rates can be double that of persons without disabilities.7 Persons with disabilities also face digital barriers due to inaccessible websites or apps providing city services and barriers in the physical environment. In many cities, a lack of enforceable accessibility standards, lack of strict regulations, and lack of training, tools, and guiding documents impede progress. In addition, up to 2 trillion dollars is forgotten as lost income from excluding persons with disabilities from employment.8

Human Rights Frameworks

Global enforceable treaties such as the UNCRPD9 are guiding nations and cities to implement accessibility standards and policies as part of their transition to Smart Cities.6
The UNCRPD includes digital and physical accessibility as key underlying principles, a vital precondition for the effective and equal enjoyment of civil, political, economic, social, and cultural rights of all people, and should also be understood as an integral part of the 2030 Agenda for Sustainable Development, which was adopted by all United Nations member states in 2015. Accessibility is a key component of modern development ideas in our increasingly urbanized population centers. Sustainable Development Goal (SDG) 11 specifically references the importance of making cities and human settlements "inclusive, safe, and sustainable." To meet this goal, universal design principles must be adopted and cities must be encouraged to develop regulations and building codes that comply with universal design principles.

The CRPD was developed partly because the way cities would be organized in the future would require transformations and broad-based coordinated approaches to ensure that cities have equitable access to all. The principles of inclusive urban development are well defined in the New Urban Agenda10 (NUA). The NUA was adopted at Habitat III in Quito, Ecuador, on 20 October 2016, presents a paradigm shift based on the science of cities and lays out standards and principles for the planning, construction, development, management, and improvement of urban areas. The NUA and the SDGs aim to transform urban environments with histories of isolation and exclusion into inclusive, engaging, and thriving communities that, according to Nobel laureate Amartya Sen, afford formerly marginalized citizens the "capabilities to live the type of lives they have reason to value."

Other significant human rights frameworks have been developed to help overcome urban challenges and improve the wellbeing of marginalized citizens. This includes the UN Habitat Human Rights in Cities11 series that encourages a human rights-based approach to housing and development in poor urban areas. The UN Human Rights Cities Network12 is another key framework that aims to create a community of human rights city practitioners around the world to exchange locally developed good practices between academic institutions, civil society actors, and stakeholders working in relevant national and international organizations.

Multidimensional and Cross-Sectional Analysis

Accessibility is the bridge between a person's human rights and the fundamental freedoms that enable them to best use them. It helps create an inclusive, productive, mobile, and peaceful society where people can engage with their cities and one another. But too often, a one-size-fits-all approach is used to design buildings and urban spaces. For older persons or persons with a disability, this can mean navigating complex urban landscapes with many inaccessible public spaces (such as a Museum or healthcare facility with stairs at the main entrance and no Ramps). However, when cities are planned to follow universal design principles that ensure buildings and public spaces are planned to be equitable, flexible, and easy to access and use, everyone benefits.

The ramifications of poor urban planning can be severe. Poorly planned cities create a range of physical or digital barriers, limiting access to information and mobility options. They also increase environmental hazards, exclude people from accessing services, and ultimately prevent some citizens from enjoying their full range of rights . These barriers can put persons with disabilities and older persons in challenging or even dangerous situations by limiting access to health services, employment, education, or protective services. The sidewalks in most of Indian cities, which are in a constant state of severe disrepair due to tree roots rupturing the cement, are a key example of poor urban planning. The Persons with disabilities in various cities have complained for years that the sidewalks prevent them from safely navigating various parts of the city. To address issues rooted in decades-long urban planning failures or complete omissions, multidimensional and cross-sectional analysis is needed in international relations.

Emerging Smart City Trends

The digitization of all parts of society is well underway. It is altering people's capacity to relate to and utilize municipal services. As more services move online, it is therefore vital that information and services be fully accessible to everyone, regardless of whether or not they have any disability. This means transitioning from offering digital services as an additional or convenient option to it being viewed as a fundamental and essential service. So, as the digital transformation of our world continues, great care must be taken to ensure that the transition we are all a part of does not further a digital divide that is merely another cause of inequality. We must never forget that Smart Cities must be accessible cities.

Across the globe, COVID-19 pandemic has highlighted numerous challenges surrounding the provision of information and two-way communications with citizens. This includes communication channels such as press conferences, web pages, and social media. Addressing these shortfalls requires that accessibility be central to the design of both institutions and the materials of communication. Consideration of these barriers must occur right from the outset of the process, when the means and materials of communication are first considered.

What has also become apparent during the COVID-19 crisis is that the pandemic has accelerated the transition to and reliance on technologies that were already rapidly occurring trends as part of the digital transformation process. This process has included the rapid and widespread adoption of remote working. For many people, this will become a long-term transition of working from home, rather than a short-term requirement during times of full lockdown. While this is a welcome change for some, it can exacerbate isolation, leading to intensifying mental health challenges (Javed et al, 2020).

The increasing value of personal data has led to large-scale efforts by companies to collect and potentially exploit it. And as more new technologies are developed, and the number of connected devices continues to rise exponentially, it has left data privacy considerations and the increased risks posed by cyber-attacks as a significant concern for individuals, organizations, and governments alike.

The acceleration in adopting new technologies offers the opportunity to transition to virtual, augmented, or new forms of participatory and cultural experiences and interactions. By embracing new forms of communication and collaboration, city leaders can nurture open innovation and opportunities for all citizens to participate in online or novel ways of interacting with one another.

The shift towards a cashless economy and new forms of fintech and decentralized finance (DeFi) products and services create new opportunities for those in developing countries or the unbanked to participate in meaningful ways in the economy. Whether this is via smartphone-based banking services or decentralized community-based financial and insurance products, it means millions more in society that were previously excluded can now begin to generate and utilize their full value developing potential.

Each of these trends provides both risks and opportunities for cities and international relations. These changes can have outsized impacts on at-risk people, including persons with disabilities or older persons. They are often the last people considered when sudden trends emerge, and society has little time to enact proper planning. But these new trends also provide the opportunity to use these changes to alter the course of the more significant transformations underway. For example, by making these changes to work practices, data protection, and new social and financial models, it is possible to design these new products and services to consider those most in need so that the longer-term outcomes result in more equity and accessibility for all.

Conclusion

Accessibility is not an abstract concept. It provides a framework to develop a fairer social contract that leads to more significant equity among people. It also encourages the formation of better and more transparent planning of our urban environments that consider all citizens' needs and input.

Universal design and multidimensional and cross-sectional analysis are powerful concepts that make an access and equity an integral part of everything we create. They should form part of the conversation behind the creation of new infrastructure, apps, and services. Yet, many challenges remain due to the fragmentation among governments and the sheer scale of efforts to develop the infrastructure required to build the Smart Cities of the coming decades. How we embrace the need for equity and social justice as part of meeting those challenges will determine the level of economic and social prosperity we can realize in coming generations.

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