Interview With Yogesh Dandekar

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UW: How is design playing a role in Urban transport?

YD: Design plays a crucial role in terms of addressing many factors that influence travelers to make certain decisions and help make their journey comfortable.

Earlier, transport systems were seen as monopolistic ventures; users had no choice but to accept the available service and perhaps compromise on safety, efficiency and reliability. However, with the current change in urban transport, this compromise has witnessed a change. Customer experience is the focus and service design aids this focus.

Urban transport systems are life lines of the future cities with a critical role in delivering better quality of life for its citizens and visitors. There is a global shift of designing products and systems in a more human centered approach which live up to the needs and expectations of the users.

Design and the process of design thinking behave as the key stone in bridging this gap. The gap is quite evident when you see inaccessible stations, bus stops, illegible stations buildings with people feeling disoriented, inconsistency and clutter, un-ergonomic furniture and water fountains and disregard to cleanliness, safety and security. Design puts users first and brings about a change in the thought process. A system designed for the users instead of a system adopted by the users. For example, How intuitive will it be when Mr. Joshi, age 65, shows his travel card to the TVM for adding value. The machine greets him on his birthday, adjusts the on-screen display for larger fonts and better contrast, starts an audio response and introduces a lag because he is not quick to deal with these devices which his grandson grasps very easily.

(Source: Public transport and urban design)

UW: How can IOT be integrated in Urban transport?

YD: Connectivity is now an inseparable pertinent factor in the urban lifestyle. Likewise, it plays an important role in urban transport. Products and environments around us are getting connected and "smarter". A responsive product, environment or a system, which reduces the interaction for very basic activities, assists as an extended presence in an autonomous manner to help users carryout their daily chores.

Transport systems are having many components. They possess a huge opportunity to deliver an enhanced experience which at times can be personalized for the users. IOT (Internet of Things) on one side is creating autonomous driverless vehicles, but can also very easily help you know the exact parking slot available, help you track the bus location and the bus sending a message if it is delayed.

A smarter metro train can help people on the next platform identify the doors to those compartments with less crowd. A self-driven, self-monitored and responsive system will make them more reliable. These will cover transport management factors such as location tracking of public transport, public announcement systems, transport information systems, passenger counting and surveillance systems.

(Source: The Internet Of Things Is Already Improving Public Transport)

UW: Give examples of how different cities are using design in their urban transportation?

YD: Transport systems around the world have been using design to deliver better experience for their users. London is a great example and a pioneer in making design at the core of its service delivery. Buses, Taxies, Underground, though managed by different entities present a single face to the users. Their maps are designed using colour codes assigned to each route, making it easy for the user to navigate which route to take to get to their destination. Well-structured design guidelines form the backbone for delivering the service.

London developed its service delivery with very low technology systems but has been able to harness the latest technology. It has become an icon in the design fraternity and everyone looks up to its new initiatives and innovative ideas to connect with people.

Technology has been increasingly coming to assist in enhancing the integrated experience for users to seamlessly use the system. A single Octopus card is enough for anyone to travel and make convenience purchases in Hongkong. Portland in US for instance, is a unique example of integrating cycling, walking, buses and metro which have coordinated schedules and seamless interchanges.

However, there are also cities that have integrated service design for urban transport through technology, such as the use of mobile apps for public transport for tracking purposes, estimating time of arrival and even booking tickets.

UW: Trends that we have been witnessing / or will witness from India perspective in Service Design in Urban Transport?

YD: One of the main trends to keep in mind for design in urban transport is service. In India, Urban transport is now being increasingly seen as a "Service" and not just a "System". A system is various elements working together to fulfill a purpose – 'traveling in a city'.

Transport systems have to increase the speed of travel which substitutes the needs for physical proximity within the cities. However, it is important that "Delivery of this Service" matters more. System just exits but a service is an intentional offer and a commitment to make it safer, easier, reliable, comfortable and economical for its user and brings a value add like – reducing stress and uncertainty.

Urban transport is one of the most important elements in Government of India's initiatives like JNNURM and the recent Smart city development. The MoUD (Ministry of Urban development) is eager to implement a common mobility card across India. It would be a great feeling to use the same card for traveling in Delhi metro, pay for the bus in Kochi.

The transport systems are increasingly focusing on customizing their system components making them relate to the city and its people and culture. Kochi metro is designing their stations with unique ambiences which bring in local connect and aid in Place making. Macro interventions like making walkable streets, seamless interchanges and intuitive wayfinding signage. Apart from this there are interesting ideas being implemented like customized interiors for many public transport systems such as buses, trains and even taxis, adding services such as USB charging points for phones/laptops/tablets including access to WiFi.

The radio taxies like Uber and Ola cabs are excellent examples of making a shared transport system extremely convenient to use. They have harnessed the potential of technology and connected devices and IOT resulting in reducing congestion on roads. The user experience of these systems is a key element in inducting people to use this system. These designed services are what make the user experience of urban transport more captivating for the users.

(Source: How connected is your city? Urban transport trends around the world)

UW: What would the future be?

YD: Unified Mass Transport Authority (UMTA) is one big step gaining traction and policy maker's mind share. It is Government's next focus. The unification is very essential to make the system components work in unison and respond to each other and bring out a single face to the user.

Transport Oriented Development (TOD) will be the focus of all governments and city planners. (IoT) Internet of Things is giving that ultimate edge in delivering a user focused experience and it is also making it easy for the system operators to manage the various transport modes in a predictive and responsive manner.

We are not far from the future when the entire urban transport system is self-learning and adaptable to the changes on day to day basis. The Big data is enabling the systems to take decisions to deliver more intuitive service and make it a predictive to respond in typical scenarios.

We are not talking of futuristic concepts but something that will be unlocked in near future. For instance, Mobile apps assisting travelers in travel planning making the travel more matured. Beyond just tracking on users travel and suggest course corrections, alternate travel modes and diversions in case of congestion, it can delight users by reminding on their tasks at the right time at right place along the travel route.

The future is definitely adaptive, responsive and intuitive where transport services will integrate with the multiple modes of transport from walkable streets to PRTS (Personal rapid transit system). Imagine a situation where for instance bus systems would automatically divert more buses to a specific route in case of a special event or in response to the peak time travel.

UW: What are the challenges that one faces from design perspective while designing for Urban Transport?

YD: As cities continue to become more distributed, the cost of building and operating public transportation systems increases; and designers do not have the liberty of designing a city and its transportation system from scratch.

However, the biggest challenge is moving away from motorization in order to adhere to a healthier environment, avoiding pollution and use of fossil-fuel driven vehicles. In order to do so, usage of personal vehicles needs to be minimized, and this is one challenge that is present in urban cities, especially with highly populated cities in India. The easy solution to this is to design access to public transport systems that are near homes, so that residents can walk or cycle to the nearest commute point. However, only one third of the population of India does so (source).

Another challenge is that, solutions to problems in urban transport currently are very engineering oriented. In the next 10 years or so, this will evolve and the implementation of design will play a key role in urban transport with service design being at the forefront. Service / Experience Design will be integrated into the transport systems in the future and act as the key differentiating factor from others.

(Source: Changing India's commute)

UW: Could you let us know how service design can alter Indian transportation system?

YD: I would like to explain these with some realistic examples. For instance, Miss. Madhavi has ordered her new hand bag while in office and she has the option to collect her parcel at a pickup point provided at the metro station exit on her way home.

Mr. Gupta is able to effortlessly walk 200m from his house to pick up a rented bicycle and use it to reach the nearest BRTS stop and commute to his office which is in a high density business district located on the BRTS route 10km from his home. Not just that, during his travel he is also able to read a book of his choice on his e-reader, answer a few mails and reach his office in more presentable attire and with a fresh set of mind.

These are some day to day examples to showcase hoe integrating service design can alter the Indian transport system. In fact, Service design approach preempts the users' requirements. These range from very basic needs to expectations from the system which are more aspirational.

In the current context, if the cities really have to make it better for people to live, reduce the global warming by reducing emission, then the ability to choose an urban transport over personal vehicle is favorable. However, the urban transport has to reach out to people, it should be attractive, easy to use, safer and offer value added services. Putting Service design thinking on the forefront is important to introduce this change at the strategic level.