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 disorientated, 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. Josh, 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.

(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 in an extended presence in an autonomous manner to help users carry out 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 transports, public announcement systems, transport information systems, passenger counting and surveillance systems.

(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, Trains, 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 convenient 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.

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**UW:** What would the future be?

**YD:** Unified Mass Transport Authority (UMTA) is one big step ranging from urban 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 an 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 will be self-learning and adaptable to the changes on day to day basis. The Big data is enabling the system 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 transparent. 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 them of your 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 BRTS (BRTS 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 cites 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 Madhav 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 with a fresh set of mind.

These are some day to day examples to showcase how 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 emissions, 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.