on the design of public transit experiences that delight—and deliver

Using human-centered design principles to help transit agencies provide care to their users.

We live in a world shaped by the industrial revolution and the modernist movement that followed it. Both transformations heavily threaded systems into our lives and cities that were meant to create efficiency, deliver on performance metrics, and optimize outcomes through separation of function, of use, of population.

"Cities are inventions to maximize exchange opportunities and minimize travel, streets [are] a dual space for both movement and exchange."

Engwicht, D., 1993. Reclaiming Our Cities and Towns (Towards an Eco-City). New Society Publishers, Philadelphia. Engwicht, D., 1999. Pluto Press Australia, Annandale.

From road traffic to suburban sprawl; from poverty to racial inequality—increasingly, we are made aware of the limits of the modernist mindset. These systems have isolated us and divided the urban form in functional, socioeconomic, and racial ways. As we imagine a new future, we must take an honest look at what obstacles exist to make the changes required to our urban form if it is to provide necessities in health, housing, equal opportunity, and innovation that will make a better future possible.

Worldwide Urbanization

The world is increasingly populated, urbanized, and connected. For cities to attract and maintain ever larger populations to sustain economic growth, they need to provide a level of public services and amenities that allows residents to thrive. Public transportation is an integral way in which governments can achieve many of these goals.

But these services are rarely created with human interaction in mind, nor are they thoughtfully and holistically designed. As a result, these services can become victims to a vicious cycle of underuse and underfunding.

We think human-centered design can play a critical role in reversing those trends, if applied to create delightful experiences that palliate users (and would-be users) to consider transit as the first choice for themselves, for others, for their cities, and for their society.

What is wrong with transit?

From San Francisco to Hanoi, Stockholm to Buenos Aires, there seems to exist a consistent thread: while the basic steps of riding transit are the same, the quality of that experience is highly variable, and only rarely is it something to desire.

In too many places, riders are accustomed to inferior experiences as somehow par for the course. While some locales may boast service that is fast, frequent, and reliable, what seems to be true no matter the location and quality of service is that the quality of experience is lackluster.

While airlines spend billions of dollars defining a cohesive and compelling customer experience, most of the time their land-bound brethren don't put anywhere near the same level of care and consideration into the experience they offer their riders. This is a mounting problem as increasing urbanization trends put more pressure on cities to adapt to growth. Investing in better transit experiences has the potential to upend the vicious cycle of underuse and underfunding and re-energize political interest, investment, and ridership.

What can design do?

If transit agency staff—from its executive leaders to operational staff—were to consider the transit rider's end-to-end experience, it would illuminate pain points and opportunities to better the rider's experience, and ultimately the overall system. While it is common for transit systems to be evaluated in terms of cost, scheduling, and on-time performance, if the changes to the system were considered based on rider experience

objective
subject

foremost, it could unlock a positive cycle of satisfaction and funding that could ameliorate a range of issues.

In contrast with standard transit planning, applying human-centered design approaches such as a customer journey map could start to illuminate every consideration and opportunity to make a rider feel satisfied with the transit system.

If the transit experience were holistically considered end-to-end from the perspective of the user, satisfaction and trust in the service would improve, and over time, in government as well.

A few case studies

While we haven't found a transit system yet that holistically considers the entire transit rider's experience, some cities have applied a user-centered approach to aspects of the system.

Pain point: Self-image
Los Angeles Metro

Los Angeles is known first and foremost for its car culture, but the city's public transit system has been gaining steam in recent years. A focus on appealing to Angelenos to position LA Metro as a viable alternative—or even first choice—to cars has resulted in a positive feedback loop of increased perception, ridership, and funding.

In 2002, a new Creative Director with a background in advertising, Michael Lejeune, arrived at LA Metro. His team rebranded LA Metro's visual identity to create a colorful, recognizable presence and also created cheeky

advertising campaigns that poked fun at LA's car culture by positioning public transit against high gas prices, traffic, and environmentally-unfriendly emissions. As a result, opinion polls exhibited a 40% increase in user perception of efficiency, frequency, and quality of service, despite no significant changes made to these areas at that time. In turn, L.A. County residents approved in 2008 a half-cent sales tax increase, known as 'Measure R', to bring over $40 billion in new transit funding to Metro, spurring the development of new transit lines and further improved service and experience.

Pain point: Safety/well-being
Transport for London

Transport for London has embedded a customer-focused approach to the process of creating and maintain subway stations. The agency created a "Station Design Idiom," a thorough set of guidelines that considers customers' experiences through all aspects of station design. These guidelines help the agency to convey a sense of care that ensconces riders in a comfortable, considered experience within all stations.

objective
subject

By preempting riders' concerns and anticipating their needs, the intuitive system clearly displays information to reduce confusion and crowding on the platform—ultimately cutting down train delays and allowing for more efficient, safe, and enjoyable experiences for riders.

Pain point: Literacy & Accessibility
Mexico City Metro

Mexico City Metro's graphic signage takes inspiration from local landmarks and geographic features. At the time of the icons' creation in 1969, Mexico City had a sizable population of illiterate people. The visual iconography is rooted in the city's culture and aids navigation through the city. Though the literacy rate is now over 90%, the icons have become a recognizable part of the transit system and can still help all riders in orienting their journeys.

Pain point: Wayfinding & Efficiency
Tokyo Metro

In Tokyo, subway cars display digital diagrams detailing where the car will be positioned in relation to an upcoming station's exits. Subway stations also number exits, which help to orient and direct users through the underground stations. These simple amenities show how easily implementable features that anticipate riders' needs can go a long way to improve their journeys. What can be done

In Conclusion

All transit systems would benefit from internal policies and deployment of teams that are chiefly dedicated to addressing the needs of their users. These exercises may include research and engagement scopes that aim to define painpoints in the rider's journey, with the aim of developing programs to improve them; or a more systematic definition of that journey with key recommendation, as Transport for London did in its Station Design Idiom. These steps are especially appropriate at the onset of large capital projects, but equally suitable to systems experiencing challenges and falling customer satisfaction. We see an opportunity for those agencies to leverage outside talent, including architecture, UX, and design firms attuned to the perspective of optimizing people's experiences.

Pain point: Wayfinding & Efficiency
NS Dutch Railways

The Netherlands Railway features an intuitive solution to help train riders board the trains. A narrow digital screen positioned above the platform displays useful information such as train car occupancy level, door locations, and car features (such as if a car is handicap accessible or a quiet car).

objective
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