Hello, and welcome to threesixtyCITY, by NewCities: a podcast delving into the future of urban life. I'm your NewCities host Mariana Lebrija. When it comes to transportation infrastructure, the complex notions of equity, citizenship and the overall value of social narratives might not be front of mind. For many urban dwellers, the ways that we move around the city are often so ingrained into our daily lives that we don't take a moment to consider the different factors that come together in the planning, financing and building of the systems that - quite literally - carry us through our routines. In today's episode of threesixtyCITY, I'm very excited to be sitting down with Sreelakshmi Ramachandran to discuss these nuances that relate to transportation systems and sustainable mobility, all under today's main topic of transit equity. Sree's overall work has been inspired by her experience living and working in Indian cities and her interests fall within various strands including transit equity, gender as it relates to public spaces & public transport, and most recently, mobility infrastructures and the types of citizenship and infrastructure implications created by these systems. Sree is a PhD candidate at Concordia University, and today's episode is largely based on a piece of secondary research that she recently produced for her studies.

Thank you, Mariana, it's so great to be here.

I'm very excited for our conversation. So before we dive into our general discussion of transport equity and citizenship typology, I'd love for you to give a quick overview of your research paper. So for our listeners who haven't yet had the chance to read your work, can you maybe explain the main objective of your analysis on India's Metro Rail Project?
Right, thank you for that question, Mariana. So I am a big fan of the metro rail. I love taking it in any city that I go to. And Indian cities have increasingly started getting metrorails themselves - I think there are 11 cities in India that have a metro rail. And before I moved to Montreal, for my studies, I used to live and work in the National Capital of Delhi, New Delhi, which is in the northern part of India, it's a big, really large city. And it's well connected by a pretty integrated, pretty cool metro system. So I thought that there were some questions to consider though, because I represent some kind of English speaking, educated elite in India. And I have noticed I was just, you know, around me, it's mostly people like me. So that got me thinking about what are sort of the transit equity and transit justice sort of aspects of metro rail systems in general, and particularly in cities like in India, which are also marked by great inequality. I say this because it is possible to achieve a very good integrated public transit system, which does not exclude a big chunk of the population. And we have so many cities around the world doing exactly that. But it is a tricky balance to get to. So I started thinking more about it. And since I'm doing my PhD in urban mobility in India, I got the opportunity to think and write some of them down. In a nutshell, my piece of - this piece of research looks at what are these narratives that go around creating these metro rail systems in India? And what are the Political Economic arguments that are presented for rationalizing the choice of a metro rail. So, I looked at it from the angle of a key argument these days, which is 'we all must shift to public transport because that helps in decarbonizing our streets'. And this was a great starting point for me to think about it because often we find that you know, metros are supposed to be a clean mode of transport, because they don't have tail-pipe emissions, like, you know, cars, or even buses do. But more than that, I think, what really helped me problematize it was just how much pollution is caused by people in India, when you disaggregate them by income groups, and the world inequality report that came out in 2022 helped me understand that these trends vary vastly by income. So in India, the top 10% pollute a lot more than the, you know, the average population polluting per capita or even the bottom 50% or the middle 40%. So this, this really, uh, you know, shows that these kinds of massive infrastructure investments are tailored at, say, a wealthy elite group of people rather than for all citizens in a city. But somehow, the cost of pollution is - or, rather, the cost of addressing the pollution that's caused by the job 10% is passed on to the 100% of the population, which is hardly fair, given income inequalities, as we just discussed. Um, then there were other aspects that I thought were interesting: in terms of metro user profiles, there's a lot of sort of regulation around how you must present yourself while you're traveling by the metro or how you should conduct yourself in the space of a metro, which all fit to some kind of, you know, a very elite aesthetic, so to speak. And that led me to conceive of these ideal types of commuters, based on just the degree of citizenship that they have, in terms of access to the metro infrastructure. So I hope to speak about this further. But yeah, that's basically my paper in a nutshell, it's just how there is narratives and, you know, regulations that the stage brings out, all come together and act out in the space of a metro.
when they are clean, orderly, quiet, and generally pleasant to look at. So I'd love to know your thoughts about this idea, and whether you know of any policies or projects that might contribute to a solution to this issue and addressing the underlying issues that affect lower income communities.

07:43

Right now, so you do bring an interesting point, you know, the whole aspect of aestheticization of poverty, there is no doubt that cities are objectively pleasant to look at if they were devoid of filth and disorder. I mean, who likes mayhem or craziness in their cities anyway? But the question always is, at what cost are you achieving that? You know, we just did speak about various kinds of policing tactics that are used by regulating or ordering the way certain bodies are presented in the space of the metro. So, to hop back to the example of the Delhi Metro, which I'm more familiar with and which has a lot of scholarship existing on it - on its ethnographic space, I would say, you know, the metro rail as a project itself is a sort of disciplining force. The Metro is supposed to bring order to the city, it's supposed to address the gridlock that has come about because of unruly drivers or 'bad planning', or, you know, anything ranging from current governments, or, you know, just what do you say, exiting governments' incapabilities, or even going all the way back to inefficiencies due to colonialism in cities like in India. So, because all of these things come together to you know, sort of play out in Indian streets, it's often seen as a site for ordering rather than engaging in the way that they are right now. So the Metro is this giant techno managerial feat. It's an engineering marvel. It's nice and it's neat and it's clean... it's, what you see itself, is just this new thing. And then the space of the Metro, the metro stations' premises, the Metro car... you know? All of these contribute to this facelift of the image of the "Global South" city, which is why you see so many of these material products cropping up across "Global South" cities. And you know, at least in the Delhi Metro, again, because I'm more familiar with it, I have noticed this and is also recorded in Rashmi Sadana's scholarship. There are rules on what you can bring in the metro car, what you can eat, or what you can drink, or if you can eat or drink. And there are warning signs that announce punishments for loitering or littering or chewing tobacco, which are admittedly problems in some Indian cities. So, besides these, there are the inherent inequalities that, you know, such projects create: such as, you know, say for instance, metro construction requires a large amount of labor. And they tend to be migrant workers from distant lands and not from within the city itself. And that creates this sort of spontaneous slum settlement for these workers to sort of, you know, rest in or live in for the duration of the metro construction. And all of these have to be hidden away from sight to maintain the garb of modernity and shine. So this is just this whole thing about policing. And the response to filth and disorder.

Sreelakshmi Ramachandran 11:27

Yeah. And just to round out what you asked about possible solutions there is, you know, it's the face of it sounds very simple, like why wouldn't you compensate your workers properly? Why wouldn't you, you know, create a project management that is devoid of perpetuating bad work cultures, or, etc, etc. But what I would want to point at, sort of draw attention to, is that every sort of dollar counts to these projects. So wherever you know, you can cut corners, that becomes important, like they are already big ticket infrastructure projects as they are, even without compensating workers properly, even while using construction laborers who will never - in a realistic timeline of their lives - be able to ride the metro to and from their work. I mean,
the Delhi Metro at least is a little different than other metro projects. But it still isn't, you know, quite ideal. But policing certain behaviors that are attributed to the poor is itself a way of excluding them in design. So yeah, in terms of the it's, it's an easy solution on the face of it. But when you start talking money, it no longer is an easy solution.

12:53

Definitely, I think sometimes 'simple' solutions are very complicated at the same time; you can easily picture what needs to happen, but actually enacting that is a completely different story. So that actually brings me to a question I was going to ask a bit later on, but I think it fits pretty well, in this part of our conversation. I was wondering what you think about these big ticket projects that are currently geared towards the privileged sector and the electorate... How do you think services that benefit the majority population resonate with the public and could rally as much public support and political will as the metro rail project that is otherwise branded to the elite sector of the population, who can maybe generate more funds and support for for projects that don't benefit the entire population?

Sreelakshmi Ramachandran 13:57

Right, that is an important question. It is, it's indeed some, you know, something that you wonder: why does it enjoy such great popularity, the idea of a metro rail? I mean, look at me, I love the metro, I rode it every day (till you know, the pandemic shut everything down), to and from work. And that was the easiest way for me to get through the city. But, you know, with that little lack of self reflection as to, you know, who is paying really for this Metro, that itself, I would say is sort of characteristic of those with privilege that it's not just the lack of empathy, but it's probably even not that, you know, it's just the complete lack of awareness. And it's, it's, it's like fed to us, right? Because this entire resonation with the whole metro rail and modernity, and yeah, we want our cities to be great and awesome. Like, all of that comes - it is an entirely manufactured project. It's extremely aspirational, and it's very top down. And it has, you know, this kind of a state machinery that goes and tells everyone that, you know, this project is going to really lift up everything economically, socially, politically in the city. It makes you want it - it makes the slum dweller want it, you know, because everybody wants progress and development and sort of escape their current plight so to speak. So the only way I could say we can address this is it's to keep your eyes open, and also sort of look at policymakers to hope that they correctly identify who your target group is going to be. So if you realize if you understand that your core commuting group is going to be say, the privileged class, then you have to come up with the ticketing and an entire financial model surrounding their ability to pay rather than passing down the costs, through indirect taxes and through very everyday violences to the entire population. So yeah, understanding who is going to be able to benefit from this project is going to be key, because the Metro can also be an incredibly sort of equalizing force, which is also another thing that you often hear around the Delhi Metro, that this is going to be a class equalizer, a social equalizer. Because all these different classes of people, regardless of income, or background, are going to be all riding the same mode of transport to wherever they have to go. But what ends up happening is that the very first sight of a bit of a crowd or I don't know, people that are outside of your class group, the rich tend to leave the mode, because it's no longer comfortable, it's no longer as aspirational as it was for them to begin with. My larger point here is you cannot expect the metro to carry everyone's needs while also systematically disinvesting from the bus system, for instance. The bus system
becomes important and necessary, because Indian cities are very messy, very confusing. You need great amounts of last mile connectivity to make any form of public transit system viable. And that is a separate conversation that we keep happening in - that we keep having, in the context of public transport anyway.

Mariana Lebrija  17:50
Definitely. And just for our listeners, would you mind, maybe summing up in a sentence or two, what this last mile connectivity really refers to? And what that looks like in practice?

Sreelakshmi Ramachandran  18:03
Yes, so last mile connectivity, or LMC, is this kind of a concept in transport planning or economics or what have you, where it tries to analyze the effect of the distance between the commuter's final destination and the final transit stop or hub that they you know, have closest or whatever. So if it's more than 2.5 kilometers, that's really bad already, like, nobody will want to travel 2.5 kilometers just to get to their nearest transit bay, unless they live very far away from their destination. And imagining that on a daily basis, is going to be very difficult and tricky. But big bustling cities like the ones in India, that's very common, you do tend to live farther away from work or wherever your final destination is, for affordability reasons or for quality of life reasons. And when that happens, your - you know - your ability to use the public transit mode is only as good as your options for last mile connectivity. So here in Montreal, I again, I'm an avid Metro user here as well. And I live I think 500 meters away from the nearest station. That wasn't the case when I was living in Delhi, for instance, I had to walk at least 10 minutes and that came at a huge cost because if you had to live close to a metro, you had to cough up a pretty big rent bill. Usually, you know, metros are planned and designed along wealthier neighborhoods in India, because I said, you know, last mile connectivity distances can be quite large. We have multiple sort of modes that fulfill that: of course, there's walking and bicycling, which are the non motorized transit options - NMT options, so to speak. But more than that, we also have tuk-tuks or bike taxis, or, you know, ride hailing services that fill that critical gap as well. But then what happens is, public transport bays or hubs tend to be crowded, crowded by IPT [intermediary public transit] modes as well, which creates another sort of accessibility challenge altogether.

Mariana Lebrija  20:36
Definitely, it's a very complex situation. And there's so many factors clearly that relate to this and that affect the situation. And as you said, a lot of the times, it's not considered and when it's a function of privilege, sometimes these conveniences really turned into blindness, and we don't realize how exclusionary some of those things can be. So I have one last question relating to that before we can start to wrap up and talk more about your contributions to citizenship typology and your current work. But before we move to that, I just wanted to talk about the unintended consequences as we've been brushing upon. But specifically, when it comes to the role of technology, I noticed in your research that you highlight the fact that technology is meant to increase accessibility, which, hopefully you can touch upon that a little bit more just for our listeners to have context. And then I'm just wondering what you think, or how you feel
about technology's role in today's urban systems and in society overall, and whether there might be ways to mitigate these exclusionary consequences and to really leverage the role of technology to create systems that are more accessible and inclusive.

22:00

Sure, so well, the metro rail is undoubtedly a technology in itself, like I mentioned, at the beginning, you know, there is a whole engineering marvel, it's got this imposing edifice, it's very intricate and modern. And then there are, you know, more everyday aspects like say ticketing, for instance, when you have your turnstiles automated, and your ticket passes can be electronically refilled, etc. It sounds - or you know, everything is online, and it's mastery, but for whom? You know? Because it's, it appeals to a certain class and certain crop of people who have the energy, access and wherewithal to understand and accept these changes at such a rapid pace. Like sometimes I do see someone struggling, you know, to get through the metro, they're stuck at the turnstile, they don't know what to do, because they have changed the card, it's just a wave now, it's no longer you know, you don't have to put it in. And this person is just confused... One of my colleagues was away on field work in India, and he was saying how, you know, you change from these paper tickets to tokens to these plastic cards, almost every three weeks, there's some change to the ticketing technology that there is some person now waiting next to the turnstile. Just like getting everyone through quickly, because there's a rush and people have to move. So technology was supposed to make everything easy. It was supposed to make everything fast. And it does. But the question is for whom. And this is just one small, tiny instance, which completely escapes us if you don't think about it, and imagine policymakers who have lofty ideas about what, you know, how to reshape the image of the city etc. They are not thinking about this because they have, you know, sort of bigger fish to fry. So these kinds of insensitivities can lead to inadvertent exclusions, which you know, if you don't think about it, is going to hurt a lot of people. And then the final or more obvious kind of note I have is about how intermediate public transport like I mentioned earlier has also undergone this massive digitalization with the arrival of ride hailing apps. So that itself is another signifier. You know, do you connect your entire trip digitally - pay for it in one gateway? Which is something you can do right now. Or do you walk yourself home or go to final Bay and hope for a taxi to be waved down or whatever? So you could digitalize the whole thing end to end and that is an option that's possible only because of the modern technological project that we see unfolding. But, you know, was it worth it? It's a question indeed.

25:18

Yes, that question of 'for whom' I think is very important. And whenever we're talking about modernization projects or policies in general, it slips a lot of the times, and it's not always front of center. And I think things would be very different if that were constantly being asked in those discussions. And it might be a different world out there. But I think that's a good transition to our conclusion and our final discussion, talking more about your work and moving forward. So when it comes to citizenship typology, I'm wondering how you think the use of citizenship rights can be applied to analyze the success of modernization projects, and/or, whichever speaks to you more, just what the infrastructure implications of sustainable mobility initiatives are, as I know that that's something that you're currently very involved in. So if you could touch on both or either as you feel is more relevant.
Right, thank you. This has been a great conversation, I am starting to realize why or what I am doing these things more as I speak, so I'm enjoying this conversation. And since both kinds of questions you touched upon are building into my work right now, I will quickly answer both of them. So in my paper, I identify types of citizenship based on the access to mobility infrastructure, and concluded that a ratified privilege-kind exists vis-a-vis other more subaltern versions, like a 'shadow citizenship' or the 'insurgent citizenship'. This builds on existing scholarship on works of scholars like Tim Cresswell and the idea was to convey how one presents oneself or has a particular kind of livelihood can seriously and implicitly impede access to new infrastructure in the context of 'Global South' cities, as those cities are still in varying stages of development, giving rise to simultaneous forms of inequalities and, you know, tensions thereof. But that's just to further problematize the way we understand infrastructures, and that is something that I'm looking at more closely now. And these days, I'm thinking about the role of IPT - the intermediate public transport - in greasing the wheels of the city's public transit system. So I think this proposal of infrastructure as a solution for everything just needs to be problematized even if it is, you know, climate friendly or non motorized modes like pedestrian pathways or bike paths. For instance, we spoke about auto-rickshaws in Indian cities... they do have a strong livelihood angle, and have an entire economy around them, there are millions of people in India that depend on auto rickshaw livelihoods. So, you know, taking them out to the street one day one overnight will create conflicts and livelihood losses. And that is the kind of tension that I anticipate when as we in Indian cities expand biking paths or pedestrian walkways. Yeah, and we need to just like not think of infrastructure as a silver bullet, because there is no hacking cities. So we need a combination of various modes in southern cities to address the mobility demand and the various topographical features that are consistent with their climate and their geography. And many actors have realized that there is enough pie to go around for the volumes and scale at which southern cities operate. And that's the success of digital intermediaries, like I mentioned before. So then the overhead costs and initial investments are still not justified. And then, you know, these are generational costs. Surely, even if the benefits are generational, do we know for sure that this is the best use of money when it comes to infrastructure? These are not simply rhetorical questions I seek answers to rather than you know me thinking that there's a need for honest use-case assessment before we sink vast sums of public monies into such capital-intensive projects. So I am just thinking of ways in which these things might affect our approach to solving for mobility in cities, especially in countries like India.

Thank you, there's definitely so much more that we could have unpacked but for the interest of time, I guess we will have to wrap up our conversation. But before we do, I'm just wondering, for listeners who want to learn more, or to do something as relates to these topics... I know you mentioned some literature when it comes to the shadow or insurgent types of citizenship. But is there any call to action that you would suggest or more reading or organizations that you'd like to point our listenership towards so that they can learn more?

Oh, there's so much literature, there is actually a lot of good work being done on the ground in terms of advocating for, you know, the wisest of the people that are sort of drowned down in
the humdrum of these infrastructure projects. But in terms of literature itself, I would strongly suggest looking at policy documents. You know, be aware of the cities that you live in, understand why our city has the kind of infrastructure it does, and ask yourself these questions. So it’s really a matter of being committed to the city that you’re from. Be caring for the future in ways that are not immediately rewarded. And, yeah, getting aware and acting on it.

31:35
Yeah. Wonderful. Yeah. Being an active citizen. That’s a great piece of advice. So thank you so much. Again, Sree, for joining us. And thank you to our audience for listening. I really enjoyed our conversation. So I hope everybody else enjoyed listening to our discussion today.

31:53
Thanks, Mariana. It was a pleasure coming on. Always great to talk to you.