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Future of Cities

The Global Challenge

The big issues facing cities are clear: Think globalisation, immigration, jobs, social exclusion and sustainability: Given that global urbanisation is taking place at an unprecedented speed with a scale, diversity, complexity and level of connectivity that challenges all existing perceptions, questions regarding the size, speed of growth, shape and land use of cities have become increasingly complex and politicised. Although cities themselves have a remarkable ability to innovate, there are broad disconnects between urban change and urban policy. The priority, therefore, must be to identify ways in which policy makers can create a regulatory environment that provides a framework for sustainable forms of urban development.

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Urban growth is being fuelled by new levels of mobility and migration of diverse populations within and across nations especially in China, Brazil and India. These rural-to-urban migrants are pulled by the tantalizing prospects of jobs and opportunity, driven by the harsh realities of rural life. Cities like Mumbai experience 42 people moving into the city per hour. Where do you house them and what infrastructure do you provide for them? Transport, electricity, sewers and water systems - these are technical issues that need to be addressed in a way that is environmentally smart.

Migration and in-migration has also created an urban underclass which is often allocated to specific areas of the city. Paris is a perfect example. The physical infrastructure, with the beauty and qualities that we all admire, has frozen. This means that all its growth (with increasing immigration from 1945 and onward) has created ghettoization. This kind of imbalance in social mobility must be addressed.

The changing nature of work will also impact on the physical form of cities. The global economy was born out of the power of trans-national corporations and global communications technologies. How does it affect the way we live? If we focus on the fact that power and communications capacities need to be produced, implemented and managed, it becomes clear that cities still have an important role to play but their layout and functionality may be different.

Even the most advanced firms need cleaners, lorry drivers, and secretaries. How must cities adapt to fit the needs of all? Also how do we adapt to the possibility that we are seeing an internationalised labour market for low wage manual and service workers? How do we adapt housing design and create neighbourhoods that will benefit local communities and encourage urban integration?

Technological innovation has shrunk the world reducing the cost of transmitting to virtually nothing. Internet users in developing countries could constitute more than half the world total within 5 years if trends persist. The reality of urban connectivity taken to its logical conclusion will create a network of interlinked cities connected, and soon to be even more connected, by modern rails and technology. Consider also the effects of mobility and transport systems on social cohesion and economic viability.

Lastly, any future urban model must of course be sustainable. If we are to make up for past failures, cities will have to produce more energy than they need, become net carbon absorbers, collect and process waste within city limits and collect and clean recycled water. All this should happen in parallel to the creation of wealth and the promotion of social wellbeing and individual health.

Options and Possibilities

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Can planners adapt with sufficient speed to create policies which address the challenges we face? There seems to be a disconnect between the complexity of challenges of the urban age and our current set of urban solutions. Planners and urban governance must consider re-evaluating how they address the problems they face and consider multi-dimensional, integrated interventions rather than specific policies covering specialised issues (education, health, housing etc). If, for example, housing is going to be a platform for opportunity, then housing policies must connect with education, transportation and childcare; if transportation is going to promote mobility and advance sustainability, then transportation policies need to expand choice and embrace dense, transit rich corridors of mixed residential, retail and employment use. Ultimately, to be successful, we also need to share innovations across networks of urban researchers, practitioners and policy makers across the developed and developing world.

We should also consider how we manage the dramatic upturn in immigration and address the fight against poverty. One billion people live in disease spreading slums characterized by inadequate housing, unsafe drinking water and open sewer systems. This makes the builders of informal housing the largest housing developers in the world and it is they who are creating the cities of tomorrow. We can plan for this "unplanned" inevitability. There are already noticeable success stories; take for example Ciuadad Neza in Mexico City where, as hundreds of thousand immigrants arrive each year, an open-ended and networked community is succeeding in establishing a lively economy out of literally nothing. Yet cities offer the promise of ultimately connecting hundreds of millions of workers to the expanding job opportunities offered by the global economy.

Can cities address the environmental crisis of global warming and climate change? Rapid urbanisation has no doubt exacerbated environmental pressures but cities offer the best promise of developing in ways that are environmentally sound and energy efficient - a pre-requisite of global prosperity. The need is to develop carbon reduction policies - such as London's congestion charge, for example, at the same time as improving infrastructure. This is why the planners in London are focusing on improving the transport infrastructure and have committed to reduce C02 emissions by 60% by 2050 focussing on existing housing stock which accounts for nearly 40% of today's emissions.

Proposed Way Forward

You can become very depressed about cities of the future when you look at all the challenges facing us. But, the more I go and visit cities and through the work we do at The London School of Economics, the more I think that there are solutions. They depend on people rather than policies - it could be a mayor making a decision or a community activist.

New Delhi, for instance, holds 13-14 million people depending on the time of day. It used to have the highest pollution rates in the world but then overnight all the auto-rickshaws and the buses were made to change from diesel to natural gas. If you can use natural gas in New Delhi, then why can't you use it everywhere?

In London we use congestion charge, which is very effective in re-prioritizing the traffic. There are clear environmental benefits but a radical social difference is a 100% increase in bus use by the middle class. If you get the middle class onto public transport you are winning, and that's a great example.

Tokyo is the largest city in the world. Its transport system, integrated by overhead and underground rail systems, means that the average commute is around one hour. Compare that to Los Angeles where the average commute is about two hours and at least 80% of the population takes the car to work. In Tokyo, 80% of the population use public transport. There is little doubt that, seen through the lens of efficiency, more densely populated, compact cities such as Hong Kong and Manhattan are inherently more sustainable places to live than the likes of Houston and Mexico City.

However, across the scale empowerment becomes significant; you need to have a system which allows people on the ground to solve the problems where they need to be solved. I go through the tiny streets of a small slum area of the outskirts of Mumbai and I see a series of young men and women who have worked together to create a communal bathroom (toilet). Where people don't have water and don't have toilets, this place is important because it's where people meet. They have created a moment of pause in the city. This is one of many projects that I saw in Mumbai, New Delhi and elsewhere which are fantastically powerful and are done by individuals.

Cities are often at the forefront of the delivery of cultural richness In Mexico city, for example, there is a fantastic initiative which is called the 'Fallon', The Lighthouse, signifying hope; a stunning project designed by an architect called Callas. Next to it is an area of approximately a million people living under the poorest conditions, a lot of them using the nearby rubbish tip as a way of living, recycling whatever is there, living at the bottom. The Lighthouse is a cultural centre where kids learn how to paint and do art. Mexico City is a city of enormous violence; people don't feel safe going out and whenever there is a crowd of people together the police try to break it up. So an outdoor music area is a no-go area. Outside the Lighthouse they have built a simple amphitheatre out of earth where they hold music concerts in the summer. This does more to lift the spirits of the community than any policy I ever saw the mayor or the politicians do. At the centre of this is the physical environment. By designing spaces you can make an enormous change.

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Impacts and Implications

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Perhaps more than ever before, the shape of cities, how much land they occupy, how much energy they consume, how their transport infrastructure is organised and where people are housed - in remote segregated environments behind walls or in integrated neighbourhoods close to jobs, facilities and transport - all affect the environmental, economic and social sustainability of global society. Cities are not just a concentration of problems - but they are also places where problems can be solved.

Cities of the future have to be organic, flexible and versatile. As society and aspirations alter over time, the city has to adapt to change. Utopian cities have never worked. The people that created Rome, New York and London certainly didn't think of them as fixed artifacts that wouldn't change over time. We have to be clever enough as urban designers to design the city like a metabolism, like a body. When it gets older and weaker, you do corrective surgery. Cities need to be versatile; otherwise they fossilize and die. For example, many cities of the last 50 years have been designed around the needs of the car. But as oil costs soar and the city of the future will increasingly need adapt to modes of transportation that are not petrol-dependent. This will have a significant impact on the shape of the city.

In order to be versatile and responsive to change the sustainable city will also have to be compact. A city like Mexico City, which goes on for 100 kilometers in one direction and 150 kilometers in another, has hardly any chance of actually becoming sustainable. On the other hand a city like New York or Copenhagen and a city like London which has highs and lows of density, has the potential to become sustainable within the next 30 years.

Creating more compact urban environments generally will result in more efficient infrastructures: One direct consequence of variation in population density is the associated energy demands: Tighter, more compact cities have far lower energy use per capita than more spread out ones: So, as energy costs continue to escalate and energy security becomes even more of an issue over the next decade, this inherent design relationship will come more to the fore.

The quality of a city does not only concern the environment. We mustn't forget that cities are about people coming together. Ultimately a city may be very efficient in terms of CO2 emission but if the places where we come together are not beautiful (a word which is rarely used in this debate) and if the places don't have a wonderful relationship to urban nature - a river, water or views that compensate for this human closeness, this is not a city that people will want to live in. The qualities I am looking for in a city that is sustainable, that embraces the notion of versatility, that is compact, that offers bounds of beauty in its buildings and the quality of its open spaces.

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