Innovation-Powered Resilient Cities
The Youth at the Helm

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In 2010, two engineering graduates in their early twenties conceived a start-up that would go on to become India's largest home-grown cab aggregator. Today, Ola Cabs is valued at USD 4.8 billion, and Ankit Bhati and Bhavish Agarwal are credited with employing 25 lakh people directly or indirectly. Ola has significantly enhanced urban mobility by providing a user-friendly, on-demand transportation service, resulting in a cascading effect on the economy. Having completed over 100 crore rides since its inception, Ola's platform has facilitated the growth of a gig economy in urban areas, providing flexible earning opportunities for unemployed individuals and boosting income levels in cities, especially during economic downturns or job market uncertainties. Ola's success spurred innovation and competition in the ride-hailing sector, leading to continuous technological advancements and improvements in the quality of service. During times of economic crisis, such as the COVID-19 pandemic, Ola demonstrated resilience by pivoting its services and launching initiatives like Ola Emergency to provide essential medical transportation. This adaptability helped ensure that critical services continued despite adverse conditions. As urbanization continues its rapid

ascent, Ola's success story underscores the role of the youth in developing innovative digital solutions for building resilient urban economies.

Given that India's urban population is projected to reach 43 percent by 2035 (United Nations Human Settlements Programme, 2022), the construction of resilient cities has become a paramount concern. Resilient urban economies are those capable of enduring, adapting to, and bouncing back from various shocks and stresses, encompassing factors such as natural disasters, economic crises, and social disparities. Innovation and technology play pivotal roles in shaping the prosperity and resilience of such rapidly changing urban environments.

Artificial Intelligence as a Catalyst for Digital Innovation

Artificial Intelligence (AI) has emerged as a powerful force that is reshaping cities worldwide, and India is no exception to this trend. AI is fundamentally reshaping urban resilience by offering creative solutions to intricate challenges. By employing predictive analytics and AI-driven technological systems, cities can become more adaptive, responsive, and equitable places for its inhabitants. A 2020 report by the Indian Council for Research on International Economic Relations (ICRIER) titled "Implications of AI on the Indian Economy" notes multiple innovative AI-based mechanisms that are being utilized by law enforcement agencies across India. For example, Delhi Police has partnered with the Indian Space Research Organization to develop an analytical system called Crime Mapping Analytics and Predictive Systems (CAMPS) to monitor internal security and control crime. In 2022, under the India Smart Cities Fellowship Program at the National Institute of Urban Affairs, a team of young urban development practitioners developed and piloted an

IMPROV IMPROV's AI/ML-based multi-layer object detection and classification model for identifying garbage vulnerable spots

AI-based administrative dashboard, IMPROV, for predicting and monitoring garbage-vulnerable spots, with the aim of creating a decision support system for informed solid waste management service delivery in the Indian city of Bhopal.

The Youth Advantage in Digital Innovation

The youth bring fresh perspectives, untapped creativity, and a natural affinity for technology to the world of digital innovation. Their ability to adapt quickly to new trends and technologies positions them as powerful catalysts for urban economic growth and recovery. They are digital natives and are more likely to take risks with emerging technologies. Their technological fluency enables them to harness digital platforms and tools effectively to reach wider audiences and collaborate

Kalyani Khona Kalyani Khona is the co-founder of 'Inclov', the world's first matchmaking app for Persons with Disabilities and health disorders (Photo: Mahima Sharma/www.techthirsty.com)

globally. As a result, youth-led innovation that translates into entrepreneurial pursuits is occurring at an unprecedented rate. In 2020, NASSCOM reported that more than 40 percent of its documented sample of entrepreneurs were aged between

CIIE_IIMA The Centre for Innovation Incubation & Entrepreneurship at the Indian Institute of Management - Ahmedabad is one of India's oldest incubation centres (Photo: Shailesh Raval/ www.indiatodayimages.com)

25-44 years. In 2022, NASSCOM further reported that 18 percent of all startups, and 20 percent of all unicorns have at least one female founder. The report further noted that over 360 open innovation programs were set up by academic institutions alone. Notably, almost 80 percent of India's top 50 technology academic institutions have an incubator program.

Enabling Youth-led Digital Innovation

Structural barriers, such as legal age restrictions on banking, setting up companies, and applying for patents, act as barriers to youth-led innovation. Limited access to digital technologies for marginalized youth can make formalizing innovation harder. The youth require access to databases and online spaces where potential innovators can come together and access information to develop new ideas.

Governments may assist by strengthening the financial and regulatory framework within which the youth may develop and trade innovative solutions. Strengthening intellectual

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property protection and patent registration processes will safeguard the intellectual assets of young innovators. Ensuring continued investment in digital infrastructure, including high-speed internet access, innovation clusters, and data centers, will provide the necessary robust infrastructure required to support digital innovation. (Use Image 3) However, when it comes to the youth, it is pertinent to accept that innovation cannot be a normative, managed, documented process. Conditions such as poverty, exclusion, or failure have

often shown to motivate some of the brightest innovative outputs. Kailash Katkar failed the ninth standard while studying in the Maharashtrian village of Rahimatpur, after struggling through trying financial circumstances. Undeterred, he founded Quick Heal Technologies in 1995, a cloud-based platform offering endpoint security by using antivirus software. Quick Heal Antivirus disrupted the antivirus software market in the country by offering a locally developed solution that catered to the specific needs and constraints of the Indian market. By 2022, the enterprise employed over 2,000 people, with an annual revenue of over USD 48 million. An ancient Chinese proverb best encapsulates this process of innovation: "When the winds of change blow, some people build walls, and others build windmills."

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