

Inclusive innovation editorial: The promise of inclusive innovation

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Abstract

Innovation is an elusive concept that is widely viewed as a panacea for economic renewal. Public-sector institutions invest heavily in innovation even as private-sector actors and interests dominate innovation policy and its rewards, especially at the local scale. But in a moment when planners and policy makers are under pressure to promote economic inclusion, we must also ponder the prospects for innovation to be inclusive and equitable. In this opening editorial to this special issue on “Inclusive Innovation,” we sketch out a tentative vision for “inclusive innovation” beginning with the problems that can lead innovation to instead be exclusive and unequal. We conclude by summarizing the contributions of the authors to this special issue, which underscore not only the diverse dimensions of inclusive innovation but also the critical importance of policy-led institutions to facilitate this goal.

Keywords

innovation, economic development, social equity, economic inclusion, equity planning

Introduction: Innovation and its discontents

Innovation is an elusive concept but one that resonates broadly in the public imagination. Elected officials and economic developers view innovation as a panacea for economic renewal, helping to revitalize existing industry sectors and incubate entirely new ones, unlocking new technologies and business potential through entrepreneurship. Even as the public sector invests dearly in basic scientific research and other foundational innovation infrastructure, private sector interests and actors are widely seen as the

chief catalysts and risk-takers of the innovation process, earning them the right to drive innovation policy and reap the resulting rewards (Lazonick and Mazzucato, 2013). Like other hegemonic economic concepts such as growth and productivity, innovation is presumed to be a good thing for individuals, communities, and

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society. It carries an imagined future that is believed to be necessary, benevolent, and inclusive.

But when we dig deeper, we see that innovation can be divisive, extractive, and ultimately political, in multiple senses of the word. On a material level, we can easily observe how innovation has given rise to a new generation of plutocrats whose wealth and influence allow them to shape the rules of the game in their favor, ensuring a steady stream of profits and market share into the future. On a more everyday level, we see tech startups and their well-heeled workforce reshaping the urban landscape in ways that benefit some and not others. But innovation is also political in a deeper sense that it compels us to wrestle with our vision of the good society. This is not just the domain of futurists and sci-fi writers; scholars, policy makers, and businesses themselves need to challenge and reshape the meaning of innovation. Swapping out “innovation” for an analogous term—change—helps us to recognize that not all benefit equally from innovation acts and processes, and indeed some do not benefit at all. Appeals to the inevitability of change must be tempered with an acknowledgment that not all change is good (e.g., climate change), and that ultimately, change requires collective agency in order to shape and guide beneficial outcomes and goals.

But in a moment when planners and policy makers are under pressure to address stubborn problems of economic inequality, exacerbated by race, class, and other dimensions of marginalization, we must also qualify our standards for innovation, thinking critically about what we mean by “inclusive innovation” and what is needed to get us there. If innovation offers the prospect of creating something *new*, then can it also serve as a window of opportunity to re-shape economic and social relations in progressive ways? If so, are existing political-economic institutional arrangements sufficient to achieve this, or do new ones need to be forged, or old institutions repurposed? And what is the potential—and limitation—of local-scale efforts to pursue inclusive innovation,

especially given the global scale of corporate and financial actors engaged in innovation processes?

In this editorial essay we sketch out the broad contours of “Inclusive Innovation” beginning with the patterns and problems that result instead in innovation that is exclusive, unequal or unjust. From there, we propose a tentative framework that far from exhaustive is intended to stimulate our collective envisioning of a future where innovation is part of a broader equitable and just transition in our political economy. We conclude by summarizing the four articles that comprise this special issue on “Inclusive Innovation,” taking note of how the authors diagnose the problems of exclusive forms of innovation, and the potential for policy solutions that promote a more inclusive alternative.

Problems of “exclusive innovation”

To imagine a place where innovation is inclusive, we first need to acknowledge the ways in which prevailing innovation paradigms lean toward exclusion and inequality. Unfortunately, economic development policy and practice tend to ignore these problems—or worse, they exacerbate them. In this section, we outline three dimensions of “exclusive innovation.”

Exclusive Innovation naturalizes the often-disruptive impact of technology on work and production. In this view, innovation is treated as something that needs to be disruptive to realize its full potential for economic development and social progress. New product technologies displace existing products and business models, while new process technologies reshape the character and possibilities for work and production. This has been most prominent in long-running debates about automation and work, including the most recent wave of speculation about the extent to which robots and artificial intelligence will displace jobs and even entire occupations (Autor, 2015; Ford, 2016). Amid the utopian and dystopian renderings of this

future is a growing recognition that the technologies themselves have little agency to disrupt; they are ultimately adopted within the context of organizations that operate within logics established by humans, not machines. Most importantly, the agency in determining how those innovations are deployed rests with the firms and organizations who have developed and deployed the technologies, often with little regard for the input of workers, communities, and other important stakeholders to those decisions (Hanley, 2014; Noble, 2017). The failure to consult or consider these stakeholders serves to justify the unequal benefits and burdens from innovation, which manifests in wage and occupational polarization, contingent and precarious work arrangements, and so on.

Exclusive Innovation centers the norms and experiences of privileged groups in the innovation process. Here, innovation processes both mirror and amplify axes of marginalization in society. This problem takes on a few different forms. For one, new products and services are designed and marketed toward segments of the market that can afford to pay a premium, often reflecting the class and demographic makeup of workers engaged in new product development. While the inaccessibility of Teslas to the broader population is of questionable concern, other new products and technologies that offer the prospect of healthier, more energy-efficient living are rolled out unevenly by design. But an even more vexing problem revolves around the question of “who is the innovator?” Innovation is treated as something that emerges solely from the specialized technical knowledge of scientists and engineers, who work with managers and venture capitalists to commercialize their ideas through startups and new product launches (Iskander and Lowe, 2020). Each of those fields is notoriously lacking in gender and racial diversity, which is reproduced over time as diverse individuals exit the field, and those who remain graduate from tech worker to entrepreneur to angel investor. Too often, economic development efforts to stimulate innovation—through universities, incubators, startup competitions and so forth—pay little more

than passing attention to who is in the room, and more importantly, why people exit the room or avoid the room altogether. But it also relates to who is even invited *into* the room. In many organizations, frontline workers are treated as an afterthought in innovation processes, rarely asked to share their ideas for how to improve products and processes—and even more rarely rewarded for doing so.

Exclusive Innovation reinforces tendencies toward uneven spatial development. Innovation happens in places. Urban scholars going back to Marshall and Jacobs have celebrated the way in which urban density unlocks virtuous cycles of externalities between producers, whose knowledge and capabilities—specialized and diversified—collide in the hothouse environment of the city. Such agglomerative dynamics are fundamental to the uneven landscapes of economic activity both within and across cities and urban regions, as investment crowds into newly designated “innovation districts” in cities, often repurposed from legacy urban-industrial land and built environment assets (Clark, 2020; Wolf-Powers, 2022). Although centrifugal forces—especially relating to inflated land, housing, and wage levels do temper these dynamics to some extent, the resulting landscape is one of “winning” and “losing” geographies. And within tech boomtowns like Seattle or Austin, Texas—the trickle-down benefits of new job creation and wage growth are localized among highly-educated workers, whose ability to bid up housing fuels waves of racialized neighborhood displacement. The scale of the problem, of course, varies wildly—even in long-disinvested cities like Detroit and St Louis, innovation districts serve as beachheads for a renewed cycle of urban inequality.

A future of inclusive innovation?

But it does not have to be this way. Around the world, policy makers, community and labor leaders, foundations, and progressive businesspeople are asking the question: *what would an inclusive innovation future look like?* In the

limited space we have here in this editorial, we sketch out three elements of such a future.

Inclusive Innovation enhances the quality and dignity of work for all workers, not just those developing and deploying technologies. Ensuring that new technology is deployed in ways that yield qualitative improvements in the character of work is one of the most vexing problems we face as a society. It is less a question of whether new technologies—whether they be robots, information technologies, or AI algorithms—will get adopted than how and with what effect. An inclusive innovation future is one where workers have a meaningful voice in that process, exerting positive agency—including their embodied knowledge of the work process—to shape the technology deployment process in ways that complement and extend human capabilities in productive ways (Lowe, 2021). This means focusing on the organizational and institutional context within which technology deployment takes place and ensuring that managers engage in what Lester and Piore (2004) call “interpretation”—engaging diverse organizational stakeholders, including frontline workers, to bridge differences in meaning and understanding about the ends to be achieved through innovation.

Inclusive Innovation expands the circle and breaks down structural and institutional barriers to participation in innovation activities. Innovation is embedded with a sociopolitical context that is laden with multiple, accumulated dimensions of inequality. Inclusive innovation entails more than not making the situation worse; it means actively working to roll back those structures. Efforts to expand the “pipeline” of historically marginalized and underrepresented groups within science, technology, engineering and math (STEM) occupations, as well as within the ranks of entrepreneurs, are critically important but insufficient on their own. Inclusive innovation efforts must interrogate the cultures and practices of organizations and institutions and hold those entities accountable for meaningful steps to enhance their inclusivity. In some cases, this means fostering “alternative spaces” where individuals from marginalized identities have greater

representation—yet where these protective spaces are themselves embedded within a larger regional innovation ecosystem with links to opportunity-rich resources and networks.

Inclusive Innovation expands the capacity of peripheral(ized) geographies to participate in and benefit from innovation. Ensuring that innovation benefits “spread” from core cities to regions and communities that would otherwise be left behind is a difficult challenge. It is far more complicated than offering exorbitant incentives to businesses to locate and invest in disinvested places, which has rarely proven to be a sustainable investment. Governmental investments—whether through universities, state agencies, or research facilities—can bring a much-needed infusion of resources, but often remain isolated as “satellite platforms” with limited spillover effects. Inclusive innovation means making long-term, broad-based, cumulative investments in people and place-based institutions in ways that expand their capabilities, forsaking high risk bets in favor of foundational infrastructure—whether it be broadband infrastructure, universal pre-school or post-secondary education, microloans, or basic income supports—that set the stage for fortuitous cycles of innovation to begin.

We recognize that these practices of Inclusive Innovation are unlikely to happen on their own. They will require institutional supports to foster them, especially on the part of workforce, economic development and innovation intermediaries who engage businesses. But it also means activating labor and civil society organizations, foundations, national government funding and regulatory agencies, and place-based development organizations.

Overview of the special issue

This special issue of *Local Economy* on “Inclusive Innovation” features four articles that were initially presented at the 2019 Association of Collegiate Schools of Planning conference in Greenville, South Carolina. Each article explores a different dimension of Inclusive

Innovation, drawing to light factors that can limit its potential and thus open a space for improved practice and policy.

Motoyama et al. (2021) engage the problem of gender-based exclusion within local entrepreneurial ecosystems. Through a case study of the St Louis (Missouri) metropolitan region, the authors show that local entrepreneurship initiatives reproduce patterns of gender disparity due to differences in access to entrepreneurship resources—not only formal resources but also informal networks within the local ecosystem, which are critical for enabling startup businesses to get established and grow. Even more distressingly, they find even when women find out about available resources, organizations, and events, they are hesitant to engage with them because they are not considered gender inclusive. Their findings speak to the importance of critically examining mainstream entrepreneurship support resources to ensure that they inclusive of women and other historically marginalized groups and identities and also the value of nurturing alternative spaces.

The elusive promise of new institutions to democratize and facilitate inclusive access to production technologies and local innovation ecosystems is the subject of Vinodrai, Nader, and Zavarella's (2021) contribution to this volume. The authors examined makerspaces in Southern Ontario (Canada)—workspaces where individuals can access (and often learn about) small-scale manufacturing design and production equipment, but often also business resources and community support infrastructure. They found that makerspaces, by and large, were falling short of expectations to be socially inclusive in their membership and to promote environmentally sustainable products and practices. But rather than dismiss the potential for makerspaces altogether, the authors argue that more intentional efforts to build internal capacity within makerspaces, as well as to connect them to existing innovation assets, could enable makerspaces to live up to their potential as agents of inclusive economic development.

But helping incumbent firms enhance their productivity and competitiveness through process innovation also offers opportunities to promote inclusion and job quality. This is the conclusion of Lowe et al. (2021) in their case study of the Genesis Movement initiative of the Illinois Manufacturing Excellence Center (IMEC), an affiliate of the US Manufacturing Extension Partnership (MEP). The authors found that this initiative, which centered workforce practices in novel ways as a key to operational improvement and excellence on the part of small- and medium-sized manufacturers in the Chicago region, resulted in changes to organizational practices and culture that were mutually beneficial to both the firms and the workers. They document cost savings, increased productivity, reduced worker turnover—and not only quantitative improvements in wage levels for frontline workers but also qualitative improvements in training opportunities and worker “voice.” They also show how investments in workplace changes enable firms to deepen their commitment to product and process innovation. They conclude that intermediaries like IMEC and MEP have an important role to play in supporting organizational strategies for inclusive innovation.

Localized efforts to support inclusive innovation hinge on their integration into local developmental agendas, a finding drawn by Bramwell (2021) in her comparison of workforce development efforts in Greensboro, North Carolina, and Saint-Etienne, France. In both cities, economic development officials had initiated programs in conjunction with local universities to help disadvantaged labor force groups access education and training and entrepreneurial support resources to connect into the local tech economy. Although both places struggled to sustain private-sector (business) engagement, the differential commitment of public sector stakeholders—high in Saint-Etienne, low in Greensboro—resulted in the former's relative durability and integration

into the local economic development agenda. Her findings are indicative of the challenges facing local government in institutionalizing and sustaining inclusive innovation strategies over time, especially in places with the US where urban development agendas are dominated by property developers and stable public funding is elusive.

The articles in this special issue underscore the important role of institutional context in efforts to support more inclusive local economies. This is an area where further scholarship is critical, and it is our hope that this special issue will spur further contributions to *Local Economy* on this topic. The journal's international scope and practice orientation make it an ideal venue for scholarly exploration about the possibilities and limits for an inclusive innovation future.

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