

BOOK REVIEW
Silvia M. Lindtner,
*Prototype Nation:
China and the Contested Promise of Innovation*
(Princeton: Princeton University Press, 2020)

Fan Yang, University of Maryland, Baltimore County (UMBC)

A young Chinese woman in white tutu stands amidst rows of factory machines gazing upward, her arms in first position. Her angel-like wings and fluffy headband render the grim factory interior a particularly outlandish setting for the ballet pose. Yet the dancer's solemn expression is unmistakably aspirational. Such is the intriguing cover that Silvia Lindtner has chosen for her *Prototype Nation: China and the Contested Promise of Innovation*, a meticulously researched and highly nuanced account about technology, power, and global China in the beginning decades of the twenty-first century.

“Prototype,” as Lindtner tells us, is an artifact that is yet to be tested for its market prospect and feasibility in mass production. It may be understood as a liminal object that occupies the space between experiment and product, perhaps quite like the one occupied by the ballet dancer in the factory. How, then, may China be thought of as a “prototype nation?” How does the prototype offer the promise of innovation while perpetuating the uneven relations of power that entwine the Chinese state, its citizenry, and the global political economy?

The immediate object of Lindtner's study was the transnational “maker movement” within which Shenzhen has emerged as a distinctive site, especially since the 2007-8 global financial crisis. As the first Special Economic Zone of Reform China, the city's connections to prototyping—both as a concept and a practice—are deep and wide-ranging indeed. Lindtner, a critical ethnographer with expertise in Science and Technology Studies, Affect Studies, and Asian/China Studies, is uniquely positioned to illuminate the historical conditions that help shape Shenzhen as a “maker” city and a microcosm of China, the “prototype nation.”

Lindtner's book complements a growing number of publications on Shenzhen that focus on its urban development and social change, such as *Learning from Shenzhen: China's Post-Mao Experiment from Special Zone to Model City* (edited by Mary Ann O'Donnell, Winnie Wong, and Jonathan Bach, University of Chicago Press, 2016) and *The Shenzhen Experiment: The Story of China's Instant City* (Juan Du, Harvard University Press, 2020). Its focus on China's fast shifting technological landscape also enriches the expanding literature on cultural studies of global China, exemplified by such works as Winnie Wong's award-winning *Van Gogh on Demand: China and the Readymade* (University of Chicago Press, 2013), which also examines Shenzhen as a key site. Scholars and students working at the intersection of China, innovation studies, and globalization may also find useful resonance with related books such as *China as an Innovation Nation* (edited by Yu Zhou, William Lazonick, and Yifei Sun, Oxford University Press, 2018).

“The uptake of making,” as Lindtner writes eloquently in the Introduction, “was driven simultaneously by desires to relive modernist ideals of technological progress and by projects aimed at relocating future making and decolonizing technology and design” (2). Her goal, then, is to trace the ways in which this vision of making has come to inform the (self-)imagination of an ascending non-Western nation at the precise moment when faith in technologies has come under critical scrutiny in Euro-America. To do so, Lindtner draws close attention to what she calls “the socialist pitch,” a Silicon Valley-originated rhetoric predicated on the promise of allowing *everyone*—and not just the elites—to innovate. This vision of “democratized”

innovation was what the Chinese state saw fit to adopt as a technopolitical instrument of governance. The proliferation of “maker” or “hacker” spaces in Shenzhen, she suggests, had much to do with the official campaign to promote mass tinkering—a kind of innovation by and for “the people” that paradoxically cultivates an individualized form of entrepreneurial citizenship.

Lindtner’s multi-sited ethnography was based on over ten years of field work encompassing extensive participant observation since 2007. Her account also draws on formal interviews and informal exchanges with wide-ranging actors, from makers and entrepreneurs to factory owners and office workers primarily in Shenzhen but also in places like Singapore, Africa, and Europe. Although Chinese-language primary sources, from mass media to policy documents, are not privileged, the book does engage with an extensive body of critical secondary China studies literature, exemplified by the works of Arif Dirlik. The limited engagement with Chinese sources may also reflect the demographic makeup of Lindtner’s key informants, consisting more often of English-Chinese bilingual subjects, and in line with her aim to methodologically transcend national boundaries.

The Introduction theoretically situates the book in the interdisciplinary frameworks of postcolonial studies, gender and women studies, critical race studies, and feminist ethnography. Five neatly organized, accessibly written, and well-illustrated chapters (often with the author’s own photographs) then follow to convey multi-faceted workings of the transnational maker culture in the Chinese context. Chapter 2 looks at the engagement with the ideals of collective making among a diverse group of professionals in China’s tech sector from 2007-2011. Generating an optimistic affect for entrepreneurial living, experimental practices such as open-source hardware nonetheless used technological promises to displace political agency among the Chinese citizenry. Chapter 3 focuses on the Western co-production of Shenzhen as a formerly “backward” site of illicit hacking (known as *shanzhai*) now turned a future-oriented locale for “legitimate” innovation. The colonial underpinnings of this co-production, especially among tech icons from Silicon Valley and the Chinese makers who welcomed them

to Shenzhen, unveil the ideological pressure that informed the Chinese state and citizens’ desire to embrace a dream of technological progress while suppressing its multiply exploitative nature.

Chapter 4 provides a material counterpart for the discourse analysis in Chapter 3 by offering an insider view of the foreign-funded incubators in Shenzhen and their cultivation of human capital. It prepares for the more detailed critique of the gendered and racialized violence within these sites and spaces in Chapters 5 and 6. Often obscured by the promise of innovation, such violence manifests itself in the positioning of women as peer “happiness labor” that smoothens over the precarity within the male-dominated tech industry (Chapter 5). It also permeates the urban design and transformation of Shenzhen, including the renovation of Huaqiangbei, a former hub of shanzhai production, into a tourist attraction that highlights the spirit of national technological upgrade. The Conclusion brings a self-reflexive closure by drawing useful comparisons to the intensified economization of politics in neoliberal America, further demonstrating the transnational operation and consequences of the “socialist pitch” in tech innovation.

In part because of the project’s transnational orientation, Lindtner seems less interested in the interactions between the Western-originated “socialist pitch” and the legacy of socialism in China’s postsocialist setting. More pertinent to her scholarly concerns are the workings of the globalizing “maker” discourse and practice in molding Chinese citizen-subjectivity. Interestingly, however, one of Lindtner’s key insights lies in her claim that this transnational interpellation (14) is an *affective* process, that it produces a feeling of exuberance not unlike—and indeed perhaps inseparable from—the kind (once) generated by the utopian project of Chinese socialism.

Lindtner’s detailed account not only unmasks the classed, gendered, and racialized exploitation that underpins this production of happiness, but also carefully retains a sense of optimism. As she argues, once “we refuse to participate in displacements of technological promise and attach ourselves instead to those bodies and sites that sustain them, we notice that technology can be otherwise” (31). Amidst the

interstices of power that entangle designers, engineers, office managers, and politicians from Silicon Valley to Shenzhen, then, lies the hope for critics and technologists alike to imagine Chinese and global futures differently.

It is precisely because of the admirable ambition in nuancing her critique that Lindtner's book also makes visible the many challenges faced by scholars attempting to grapple with the complex relationship between neoliberal globalization and China's "rise." As a fellow researcher in related areas of creative industries in twenty-first-century China, I myself have struggled with the tension discernible in Lindtner's work, between the universalizing force of global modernity - epitomized to my mind by the globalizing Intellectual Property Rights regime on which the economization of innovation depends - and China's potential if not actual capacity for preserving and striving for alterity, whether or not it may still be legitimately framed through "socialism with Chinese characteristics."

For example, in the discussion of coworking spaces like Shanghai's XinDanWei ("New Workunit") in Chapter 2, Lindtner scrutinizes the design features that incorporate elements from China's socialist past to gesture toward a future of innovation different from the West—"a prototype for alternative ways of living" (56). This aspiration echoes the dancing female migrant in the "workunit" on the book's cover and reverberates through, among other things, such ideas as "Sharism" proposed by the blogger Issac Mao that self-proclaims to be neither capitalist nor communist. Nonetheless, Lindtner argues that this collectivizing vision is subsumed by a globally hegemonic rhetoric of individual self-empowerment, which the Chinese Communist Party (CCP) has embraced to shore up its authoritarian rule.

While I applaud Lindtner's effort to delineate how neoliberal forms circulating from Silicon Valley shape Chinese state visions, I couldn't help but wonder whether this assessment risks conflating the "CCP" with the complex operations associated with the Party-state. More critically minded China scholars have long debunked a monolithic understanding of the Chinese state, whose workings are often in constant *negotiation* with Western entities as well as various non-state actors within

China. It seems as though much more can be said about the confluence of global and local forces that help shape the state's formation, its ideological potency, and its policies and their effects. How, for instance, does the term "danwei" invoke feelings of communal belonging closely connected to the (socialist) state, which lacks an exact equivalent in the Western context? How might this work with and/or against official discourses of mass innovation? What historically embedded meanings inform the composition of the "happiness" that Lindtner deems so central to Chinese maker culture here, when its Chinese counterparts are multiple, ranging from "*kuaile*" (closer in valence to "joy") to "*xi*" (which may be dubbed "fortune") and to "*xingfu*" (more akin to a mental state of feeling content)?

At stake perhaps is the broader question of how studies of (contemporary) China can defy the prevailing ideological assumptions that may preclude a genuine openness to alternatives. To be sure, *Prototype Nation* is filled with what Lindtner calls "stories of ambivalent alliances and always already partially compromised ideals" that reveal Chinese making's "capacity to accommodate diverse, often contradictory hopes and anxieties" (34). In Chapters 3 and 4, for instance, Lindtner strives to articulate the ways in which Western imports, from ideas to funds, nurture the making of entrepreneurial selves in the experimental space of Shenzhen. Her discussion usefully challenges the dichotomous understanding of making as either grassroots resistance to dominant regimes of power or acts doomed for the latter's co-optation.

Yet despite the ethnographic richness, the argument that these Shenzhen-specific *cultural* phenomena ultimately contribute to the *economization* of citizen-subjectivity might potentially foreclose the possibility that these manifestations of a China-specific model of innovation may be evaluated *on their own terms*. In other words, might Lindtner's admirable intent to unpack the *transnational* co-production of Shenzhen/China as a site of difference making vis-à-vis the West also obscure the agency of the Chinese state and citizenry in conjuring different modes of making and different yearnings for justice, thereby reproducing the epistemological othering and objectification that she seeks to defy?

That being said, Lindtner's attention to gender and racial difference opens up excitingly new and yet-to-be-fully-explored critical perspectives on China's tech industries. The discussion of feminized "happiness labor" in support of masculine entrepreneurship in Chapter 5, for example, not only unpacks the rampant sexism in Shenzhen's incubators but also points to the creative agency of the (few) women who navigated these masculine spaces with grace and ingenuity. Their implicit subaltern sensibilities often empowered them to engage in transgressive acts. For example, the office manager Sophie, who has endured much sexist treatment in the work place, accompanied a group of American and Chinese maker advocates to a factory with exceptionally harsh working conditions. When the group only paid attention to the machinery and ignored the lack of safety concerns and protection for the workers, Sophie chose to squat in the factory's court yard. Her act first astonished the American guests but ultimately invited them to join her; they even self-mockingly joked how hard it was to do so, but Sophie only responded with silence. Perhaps thanks to this moment of quiet protest, some people in the group later came to reflect on the factory's working conditions - one of the rare moments during Lindtner's fieldwork. Engaging anthropologist Anna Tsing's work on finding alternatives in the "gaps" of capitalism, Lindtner analyzes this moment as one that cracks open the maker culture's supposedly smooth surface of operation. Even though Sophie's act may not constitute a substantive form of resistance, for Lindtner, subversive moments like this nonetheless hold out the hope for challenging the hegemonic power structure that constantly threatens to re-inscribe workers like her.

A similarly nuanced critique can be found in Chapter 6, where Lindtner unpacks how whiteness informs the self-fashioning of Shenzhen's male entrepreneurs. Masking (post)colonial violence as a form of "contagious happiness" (174), this racialized imagining among Chinese men in turn supports the state project of re-branding shanzhai as a way to "upgrade" the nation. A fuller extrapolation of this contagion in the unfolding infrastructural buildup known as China's One Belt One Road project (or the Belt and Road Initiative) was perhaps beyond the scope of Lindtner's already extensive research. But

it is nonetheless intriguing to speculate how this overdetermined self-identification of Chinese masculinity with whiteness might be manifested in the intricately expanding nexus of China and Africa. In that context, I also wonder if we might take a cue from the micro-transgressive acts of women like Sophie by asking: Could an ambivalent reworking of neoliberal tropes on the part of the Chinese state and Shenzhen makers also paradoxically reinvent the momentum of Third-World, Afro-Asian decolonization? Might the legacy of these Global Sixties movements inadvertently if not consciously disrupt the seemingly harmonious alignment of finance capitalism and Chinese postsocialism?

The remarkable intersectional sensitivity regarding race, nation/ethnicity, gender, and class that Lindtner brings to the field of Chinese and global tech studies is bound to inspire further inquiries into China's innovation practices among other world-making projects. It is no small feat to simultaneously account for the global power matrix in which the Chinese state and citizen-subjects are unevenly emmeshed while attending to their distinctive and sometimes competing aspirations for experimentation. Again, perhaps no other picture more aptly captures the nuances of Lindtner's book than its cover art, a still from the video piece "Whose Utopia" by Chinese artist Cao Fei, internationally known for her cutting-edge video art and installations. The female dancer's body set against the monotony of machinery at once invokes the young (and often female) workers who toil on China's factory floors *and* complicates that familiar "world's factory" image of China. Her extraordinary presence in the factory provocatively embodies the tensions and contradictions of technological innovation in China that *Prototype Nation* brings into sharp relief. Published amidst a global pandemic inflicted by heightened geopolitical tensions and high-tech competitions between the two so-called superpowers, Lindtner's book serves as a timely reminder that the liminal space of the prototype is well worth occupying. As much as it may be rendered a space of projected desires and anxieties, it can also be fruitfully transformed into a space of critical intervention that promises new and thoughtful reflections and visions.

Response

Silvia Lindtner, University of Michigan

I have frequently returned to Yang's review over the last few weeks during my ongoing ethnographic research in China. In this response to Yang's review, I include reflections on what *Prototype Nation* has to offer for challenges China scholars are facing today. Many have encountered hurdles to enter China over the last two years due to Covid-related travel restrictions and shifts in immigration policies. And many debate the role of research and scholarship amidst shifting geopolitical relations, heightened economic and political tensions globally and between China and the United States in particular.

In what follows, I will speak specifically to what Yang describes as one of the key tensions China studies faces today—or in Yang's words: "I myself struggle with the tension discernible in Lindtner's work, between the universalizing force of global modernity—epitomized to my mind by the globalizing Intellectual Property Rights regime on which the economization of innovation depends—and China's potential if not actual capacity for preserving and striving for alterity, whether or not it may still be legitimately framed through "socialism with Chinese characteristics." Ten years ago, a multi-sited research project that takes the ethnographer from China to Silicon Valley, Africa, Singapore, Taiwan, and across multiple languages, cultural specificities, and technological experiments, might not have been considered a project that fits squarely in China studies. In contrast, most inquiries I receive about China today concern exactly this question; China's place in the global political economy of digital and data-driven technology, and how it has been shaping governance processes on multiple scales.

Currently, I spend much of my time either in remote villages or in large-scale data-driven farming experiments at the outskirts of China's big cities. Across these two different sites, I have seen, for

instance, how very localized experiments with eco-farming, spirituality, and the countryside are enrolled in the state's project focused on "rural revitalization" (乡村振兴) and digital (data-driven) transformation (数字化). The young people I meet in rural China are redefining what it means to be a global Chinese citizen, not by going abroad or working in multinational firms, but by turning to the country's land and soil, its histories and philosophies. My research sites are at once drastically different from the kinds of values and processes I had been studying in makerspaces, incubators, manufacturing, supply chains, focus technology investment, and globalized industrial production over the ten years prior *and* deeply intertwined with them. The displacements of technological promise onto sites, people, and land framed by policy makers, investors, and even citizens themselves as "lagging" (be that rural China or a city in Africa along China's BRI) are legitimizing old and new forms of resource extraction and labor exploitation. While noticing with delight how the analytical concepts offered in *Prototype Nation* seem to resonate in other contexts and sites, I am also left with a degree of anguish about how the gendered and racialized violence I describe in the book surfaces in a range of settings, from my conversation with the Didi driver in Shanghai to the young female entrepreneur who started a farming collective in her home village in rural Jiangxi.

A key question that weaves throughout Yang's review is if/how Chinese approaches to technology innovation present an alternative to make our technological and social worlds otherwise. Yang is interested throughout the review in the question if the maker movement, as it manifested in China, extended, challenged, continued, or deterred "the legacy of socialism in postsocialist China." She asks, "what is the agency of the Chinese state and Chinese

citizenry in conjuring *different* modes of making and *different* yearnings for justice?” (emphasis mine). And she ponders whether a perspective that sheds light on multi-sited and transnational processes might distract us from this promise of difference. Yang is not the first to ask questions of this sort. In fact, I have repeatedly encountered them during many years of fieldwork, being posed (both to me and to my Chinese friends and interlocutors) by fellow scholars, but also tech investors, law and policy makers from the United States and Europe as they were seeking to discern what kind of *difference* Chinese citizens and governance processes produce that was worthy of attention, investment, or social change.

A careful reader would discern that the book critically interrogates exactly such yearnings for difference, bringing together often seemingly opposing actors from activists to scholars to technologists to economists. Chinese politicians strategically invoke China’s socialist history to render Euroamerican-centric approaches and capitalist processes themselves as in line with Chinese value systems and traditions and as serving the interests of the people. *Prototype Nation* makes a case for attending to such appropriations of what we (once, or still) perceive as cultural or economic alternatives, not to argue that no alternative is possible, but to rethink it.

Prototype Nation shows that it is the very promise that somewhere out there, yet to be discovered, lies a somewhat purer alternative that legitimizes ongoing forms of violence. And it is this very promise that ties critical scholars, politicians, and investors into a productive tangle. “Discovering” uniqueness and difference fuels, as I say in the book, “machineries of capital investment that gravitate toward those regions, cities, zones, and other spatially bounded entities that differentiate themselves and are made attractive for future economic growth and capital gain.” Yang appears less interested in the promise of a technological alternative, but in the question of whether the legacy history of Chinese socialism can in and of itself constitute an alternative today. It is in some ways ironically hopeful that the Communist party state of China is implementing one of the most far-reaching challenges to the volatile financial speculation that has animated Silicon Valley and the

tech industry broadly. Yet, at the same time, labor exploitation has only increased in China’s tech industry, as the many debates about overwork and exhaustion (e.g. via attention to a 996 work style – from 9am to 9pm, 6 days a week) make visible.

Prototype Nation offers a cautionary tale of our endorsements of ideal types, past or present. In chapter 3, I show how the construction of China as “other” and as representing a *different* form of innovation from the West—for instance, via the “reinventing” of Chinese manufacturing cultures such as shanzhai as a hopeful, large-scale, and authentic counterculture that had partially escaped the neoliberal creep of financial capital’s reach—continues to serve both political elites and investors, in China and the West alike, as they seek to retain power and make money off of the promising story that unique forms of innovation can “now” be found elsewhere. Our own scholarly yearnings to identify certain regions, people, time periods, and practices as somehow more or inherently hopeful co-produces—what I call in the book – displacements of technological promise and optimism. It co-produces the kind of difference that investors and governments desire so they can brand certain regions as carrying renewed regional advantage. These displacements are violent, because they operate not only via the inclusion of certain sites and people, but also via the exclusion of others, deemed less capable, not yet promising, too slow, unhappy. This multi-sited sensibility allows to attend to how scholars and educators themselves enable the making of certain ideal types. And, I hope that taking responsibility will allow us to challenge the notion that there is the one, ideal alternative.

As I make clear in the book, this is not a reason to despair. Drawing from and building on feminist and critical race scholarship, *Prototype Nation* is an invitation to reorient our commitments and to let go of our tendency to seek out ideal types; to reorient from the model, the prototype, towards noticing what is unfolding in often short-lived, flickering moments of experimenting with alternatives that are never complete, never ideal, and never quick fixes. If we notice and then amplify these flickers or what my good friend the feminist computing scholar Shaowen Bardzell calls “glimmers” or feminist anthropologist Anna Tsing calls “gaps” in the seemingly smooth

operations of capital's reach, we (as scholars, educators, thinkers, writers) might be able to loosen our tight grip on the idea of *the escape, an ideal type, and the technological fix*. My question would shift from: does China represent a different approach to technology innovation towards what could be our role in amplifying, supporting, nurturing the glimmers, gaps, and cracks when they surface in the places, institutions, regional configurations, and social worlds we find ourselves in, in a particular moment, no matter where they are. The key is for us not to give into our tendency to stabilize, quantify, and hold stable certain ideal types and promising alternatives, but to nurture them in the moments when they temporarily surface and then let go, nurture and let go, nurture and let go.

In our current moment marked by yet another war, violence, harsh divisions, and binary world views, I find intermittent pause in my current field sites in rural China. I spend time with people who are quickly glossed by society as escapists. Their turn towards land, nurture, spiritual practice, and worlds that are at the edge of being captured by data-driven technologies is simultaneously implicated in and a step away from, sideways of technopolitics. I see their practice not as an escape, but as a reorientation. Yang asks if the "legacy of the Global Sixties movements inadvertently if not consciously disrupt the seemingly harmonious alignment of finance capitalism and Chinese postsocialism?" Legacies are unwieldy beasts; they can't "consciously" or "subconsciously" act on their own, but they are mobilized for certain political and/or social purposes. The various ways in which socialist value systems and processes are enrolled to position both national and international policies and decision-making processes under Xi Jinping is one example. Yang states, "In part because of the project's transnational orientation, Lindtner seems less interested in the interactions between the Western-originated "socialist pitch" and the legacy of socialism in China's postsocialist setting." On the contrary, *Prototype Nation* shows that a transnational, multisited orientation is key to account for the ways in which the "socialist pitch," produced by a powerful American-centric transnational elite, was strategically enlisted by the Chinese party state for it portrayed the demand of citizens to fashion

themselves as entrepreneurial human capital as in line with socialist values.

Prototype Nation is an invitation to pause in such moments and take seriously how visions of social and political change that have mobilized humans in the past reappear, resurface, linger, and are reactivated today. We must pay careful attention to the ways in which yearnings for alternatives are transformed into political projects of political control and economization – from the strategic use of communist ideals in Xi's contemporary China to stoke positive feelings about the nation and its political leadership to the reanimation of more-than-broken promises of democratic participation and liberation in the West that continues to exclude so many. At the same time, we must notice how these appropriations of people's hopes and dreams are never complete and all-encompassing. Only then can we push back against the sense there is nothing we can do about the supposed inevitable take over by capital, machines, and authoritarian leaders.

Yang's review, while focused on *Prototype Nation*, seems to be fundamentally about a grappling with what kind of scholarship is considered of value in the field of China studies. Yang speaks to the ways in which scholarship that takes seriously transnational and multi-sited processes has perhaps always been considered threatening to a field that used to define itself via national boundaries. And I'd add that feminist commitments to ambivalence -- which don't give easy answers and quick fixes – are often eyed with suspicion for they supposedly don't provide clear guidelines. My hope is that *Prototype Nation* can help legitimize future interdisciplinary and experimental modes of scholarship. The book is an invitation to not shy away from speaking to what might seem counterintuitive or what might at first feel uncomfortable.

And because poets speak with and to the heart in ways scholars seldom dare to do, I'd like to end by quoting one. Tracy K. Smith's poem about yearnings, and about what lies between. The poem speaks to me as it relates to one of the core concepts of the book; the beauty and harm of human yearning for other, better worlds – as a part of our everyday lives.

Prayer

For Yarrow, and all that is bitter
For the days I rehearse your departure.
For the Yes that is a lie
And the Yes that is not a lie. For You.
For the rivers I will never see. For Yams.
For the way it resembles a woman.
For my mother. For the words
That would not exist without it:
For Yesterday. For not Yet.
For Youth. For Yogurt and the mornings
You feed me. For Yearning.
For what is Yours and not mine.
For the words I repeat in the dark
And the lord that is always listening.

Tracy K. Smith. From *The Body's Questionty*.
Graywolf Press 2003.