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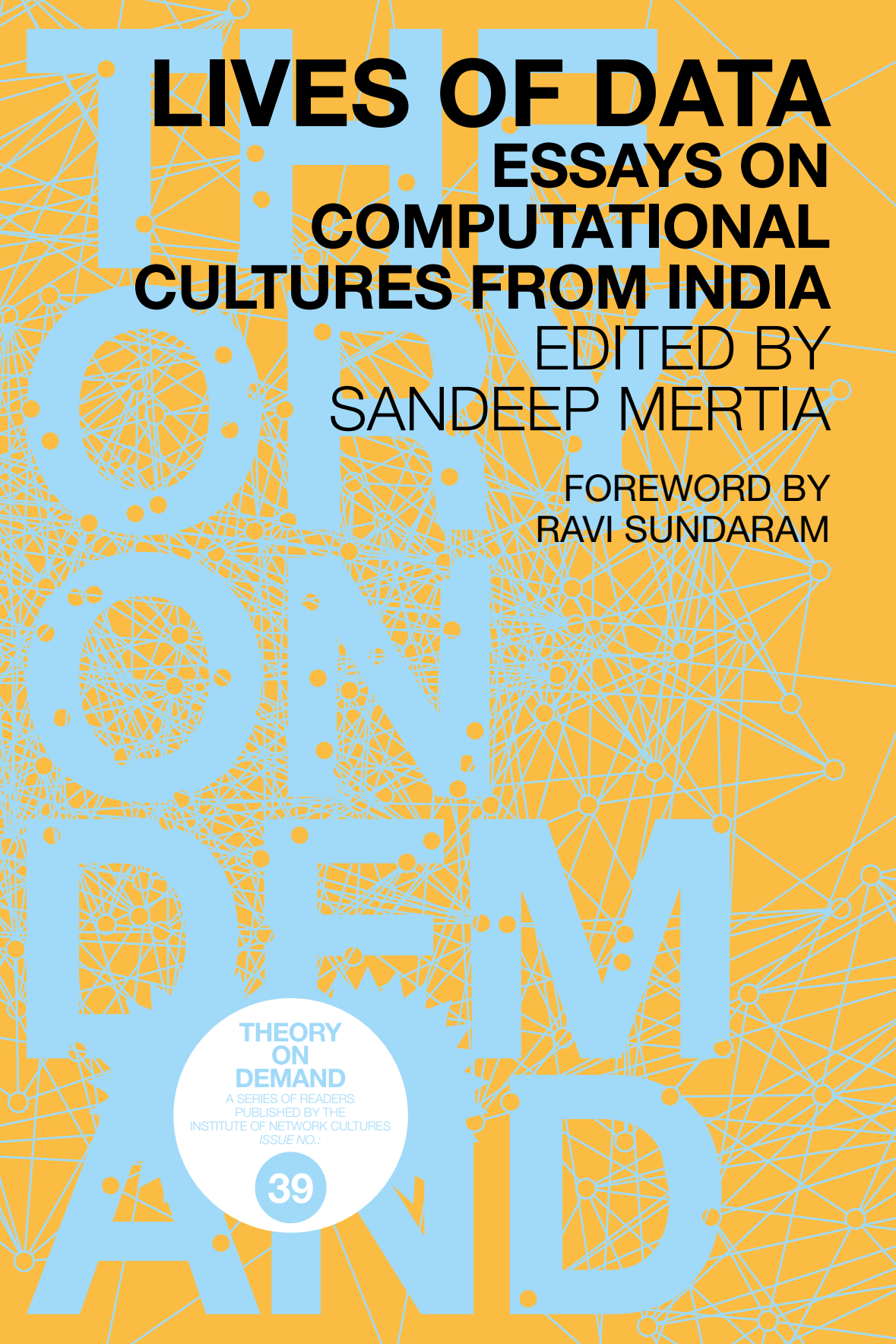

LIVES OF DATA:

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EDITED BY SANDEEP MERTIA

FOREWORD BY RAVI SUNDARAM

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Lives of Data: Essays on Computational Cultures from India

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06. HACKATHONS: LABOR, POLITICS, AND THE ORGANIZATION OF PUBLIC PASSIONS

LILLY IRANI

The lives of data, like affects, are uncertain, animated by public cultures and passions directed through organizing. People engage one another, animated by drives, duties, fears, and hopes. Among those vying to shape those affects are state and philanthropic institutions, the private sector, and activists. The passions provoked by 'open data', 'innovation', and 'nation-building' can prove potent resources for experiments in statecraft, private-sector research and development, or activist infrastructures. They can do so in ways that strengthen the adaptive capacities of investors and governments, or they can do so in ways that strengthen the reproduction of resistance and transformative efforts. This chapter focuses on hackathons and the ways they can extend infrastructures, systems, and interpretive practices through which data comes alive.

Hackathons are just one labor process that brings data to life. Hackathons are intense, multi-day events that gather people in intense, urgent, and collaborative digital labor—often the labor of designing demos or prototypes of software-to-come. The events are often structured as a scramble towards hope, allowing participants to engage in intense technological labors that can benefit distant masses through the mediation of technology. In India, as in the United States, technology as a vehicle of development is hardly new. The temples of modern India, however, have shifted in scale, from dams produced by technocratic state to apps produced by technocratic entrepreneurs. The civil engineer has given way to the computer engineer and designer as an ideal citizen.[1] The Government of India, the World Bank, venture capitalists, and non-profits invite citizens to imagine change in the idiom of software. This is one practice of what elsewhere I have called 'entrepreneurial citizenship' that posits design and social entrepreneurship as a way Indians can do nation-building, create financial value, and author 'authentic' selves at the same time.[2] These institutions employ hackathons to proliferate opportunity; they manufacture urgency, gather people to work, and attempt to capitalize on existing infrastructures and labors hidden elsewhere. As devices for organizing affects—as energy, and as interpersonal relationships—they stir public passions to generate potential financial value.[3] But hackathons need not only expand accumulation. I conclude the

1 Philip, Kavita, 'Telling Histories of the Future: The Imaginaries of Indian Technoscience', *Identities* 23.3 (2016): 276; Ajantha Subramanian, 'Making Merit: The Indian Institutes of Technology and the Social Life of Caste', *Comparative Studies in Society and History* 57.2 (2015.): 291.

2 Lilly Irani, 'Hackathons and the Making of Entrepreneurial Citizenship', *Science, Technology, & Human Values* 40.5 (2015): 799.

3 See, Sreela Sarkar, 'Passionate Producers: Corporate Interventions in Expanding the Promise of the Information Society', *Communication, Culture & Critique* 10.2 (2017): 241; Lilly Irani, *Chasing Innovation: Making Entrepreneurial Citizens in Modern India,* Princeton, NJ: Princeton University Press, 2019. Both Sarkar and Irani find middle-class Indians react to the alienations of global, corporate workplaces described by Aneesh, *Virtual Migration*, Durham: Duke University Press, 2006; Kalindi

chapter with a discussion of a different use of public passion—hackathons in which people gather to care for infrastructures and data that sustain the publics and their politics in the face of environmental extraction.

I conducted the fieldwork that informs this chapter over 14 months, between 2009 and 2014, primarily immersed in a design studio in Delhi, India, and the work of those who moved around the studio. I'll call the studio DevDesign.

Delhi at the time of my fieldwork seemed a development boomtown. Since before independence, Delhi has been a center of development planning and calculation to modernize Nehru's 'needy nation'.[4] Five Year Plans and import controls had given way after liberalization to facilitating the movement of capital investment and the growth of public-private partnerships.[5] By 2004, Goldman Sachs directed global investors to the potential of emerging markets in BRICs, and C. K. Prahalad directed business leaders to seek their fortunes 'at the bottom of the pyramid'.[6] DevDesign worked in the speculative 'dream zones',[7] doing user research to develop designs for products and services for the 'bottom of the pyramid'. They did fieldwork for London-startups working on hand sanitation. They coached Indian college students in dreaming up improvements to water distribution. They consulted with multinational corporate social responsibility initiatives. They even consulted with the Government of India's 'smart cities' project. Acknowledging that times were flush in the Delhi development scene, the director of DevDesign once quipped, 'There's nothing wrong with a bubble if you are in at the beginning'. These designers speculated at the nexus of nation-building and new product development, adopting the role of developmental mediators circulating among villagers and *basti* dwellers—potential users and targets of development—and the investors, philanthropies, government agencies, and consumer product firms that hoped to intervene.

Beyond products, the studio evangelized design as a model for making Indians into entrepreneurial citizens. They put on an annual festival celebrating 'interdisciplinary action' directed

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Vora, *Life Support: Biocapital and the New History of Outsourced Labor*, Minneapolis, MN: University of Minnesota Press, 2015; Shehzad Nadeem, 'Macaulay's (Cyber) Children: The Cultural Politics of Outsourcing in India', *Cultural Sociology* 3.1 (2009): 102; and Sareeta Amrute, *Encoding Race, Encoding Class: Indian IT Workers in Berlin*, Durham: Duke University Press, 2016—by investing their passions into corporate social responsibility and uplift projects. These 'passionate producers', as Sarkar calls them, bring poorer Indians into the very global information economy that they themselves found so alienating. DevDesign members were aware of this irony but responded to the structures of philanthrocapitalist funding agendas.

4 Srirupa Roy, *Beyond Belief: India and the Politics of Postcolonial Nationalism,* Durham: Duke University Press, 2007, p. 110.

5 Stuart Corbridge and Jonathan Harriss, *Reinventing India: Liberalization, Hindu Nationalism and Popular Democracy*, Cambridge, UK: Polity, 2000, p. 120; Atul Kohli, 'Politics of Economic Growth in India, 1980-2005: Part I: The 1980s', *Economic and Political Weekly* 41.13 (2006): 1251; Arvind Rajagopal, 'The Emergency as Prehistory of the New Indian Middle Class', *Modern Asian Studies* 45.5 (2011): 1003.

6 Dominic Wilson and Roopa Purushothaman, 'Dreaming with BRICs: The Path to 2050', *Global Economics Paper* 99 (2003): 1; C. K. Prahalad, *The Fortune at the Bottom of the Pyramid*, Pearson Prentice Hall, 2006.

7 Jamie Cross, *Dream Zones: Anticipating Capitalism and Development in India*, London: Pluto Press, 2014.

at students, planners, engineers, artists, and development workers. They showed existence proofs of activism, social business models, and even literary production in Indian vernacular languages. They reached wide to elicit 'progressive' sentiment, banners at the festival one year listed off words that appeal to the English-fluent: 'Brand - Community - Enterprise - Crafts - Innovation - Habitat - Ideation - New Media'. 'Activism - Impact - Curation - Culture - Tradition - Heritage - Reform - Experience - Sustainability'. I want to point out that in the festival, 'new media' evokes a kind of hope, but it is part of a mosaic concerned more with modernity than with the digital itself. DevDesign's civic entrepreneurialism was just one example of many schools, conferences, and contests I came across over the course of my fieldwork teaching similar attunements.

The hackathon that I now turn to was part of the studio's design festival as just one example of multi-day workshops meant to immerse participants in 'hands-on, hearts-on, minds-on' development activity. Other workshops included designing craft programs for a Gandhian NGO in Ahmedabad and developing solar power initiatives in Auroville. What the workshops had in common was that they brought together people who did not know each other to spend a few days dreaming of development projects, and then making those dreams concrete as demos, plans, and presentations.

The hackathon I participated in was like a multi-day software production party. It was one of a genre of events drawn from open source cultures but adopted recently in the development and corporate sectors as a way of recruiting volunteers to do experimental labor for free or to build excitement around an agenda. Examples included Indian Planning Commission hackathons to work with government data, Silicon Valley venture capital-sponsored hackathons to pitch startups in Bangalore, and an Infosys–World Bank hackathon to develop 'solutions' to sanitation problems. Organizers typically provide space, take out dinners, electricity, Wi-Fi, and a roof for anywhere from a day to a week; software engineers and designers can come together to meet people, test their skills, and produce a demo—a piece of software that operates like a promise of technology to come.

Hackathons began as a way for participants in globally distributed open source projects to work together, face-to-face for short periods of time. These open source hackathons were a way for programmers already familiar with one another to take advantage of rare moments of geographic copresence. Face-to-face programmers, who usually only connected online, could quickly, collaboratively, and intensively care for and maintain code and related infrastructures. These hackathons allowed for intense collaborative labor among programmers with already deep ties to the open source community.[8]

In recent years, companies, NGOs, universities, and even government agencies have taken up hackathons as a means to recruit volunteer labor, generate interest in social or technological platforms, and use participants to explore possible futures for a host organization. The company Facebook regularly hosts hackathons to explore future projects and to inculcate in

8 Gabriella Coleman, 'The Hacker Conference: A Ritual Condensation and Celebration of a Lifeworld', *Anthropological Quarterly* 83.1 (2010): 47.

employees the ability to 'move fast and break things'.[9] Hackathons entered a global lexicon of public culture when MTV featured a Facebook hackathon in a documentary about the company.[10] The World Bank organized a Global Water Hackathon in 2011 with 500 'hackers' across nine cities to direct entrepreneurial programmers toward partner agendas.[11] In 2013, for example, non-profits and government bodies across the United States participated in a National Civic Day of Hacking, an intense Saturday of coordinated digital volunteerism.[12] These events invite people to experiment with possibilities for social ventures, tools for mapping water in crisis regions, or prototypes of future startup offerings. While early, open source hackathons often focused on improving, repairing, and maintaining shared infrastructures, the hackathons have also grown to include speculation about technological futures that rely precisely on those infrastructures cared for elsewhere.

The theme of this hackathon was 'open governance'. As we ambled into the studio at 9 a.m. the first morning, the cook handed us *chai* and we sat with laptops open at a long table. The convener had us introduce ourselves and describe our motivations. The seduction of tangible action—of making and doing something other than words—was on many of our minds. A young Bangalore software consultant wanted to quit cribbing about governmental inefficacy to 'see if we can make a difference'. An Indian Institute of Technology-trained designer wanted to see if design could actually save the world instead of just 'making posters' for clients about it. I was there to see what would happen if I brought anthropological sensibilities critical of development and my coding skills together to attempt technology as a critical practice. Prem, a legal anthropologist, came because in his words, 'anthropologists sit and critique things, but they never get around to doing anything'. All the speech act theory in the world left him still wanting to experiment with other forms of intervention. In different ways, what was at stake for all of us was performing the promise of agency—of action which promises to make a difference, and promise is key here—in a messy, complex world through some kind of building.

We began by familiarizing ourselves with the domain. Vipin, the convener, had recruited a friend at Parliamentary Research Service who guided us towards Parliamentary standing committees as a site where we could inform legal deliberation through the software we would design. Most of us had experience making software, but few of us had knowledge of the legal process. We read through and critiqued a recent Road Safety Bill draft to put ourselves in the shoes of possible law-reading users. We learned about parliamentary procedures. Vipin, trained at IIT and Indian Institute of Management, kept up on business and computing trends. He pushed a stack of books on 'Open Government' and e-Government, exclusively based on American case studies, to me and told me to skim for anything 'that interested' me.

9 Alex Fattal, 'Facebook: Corporate Hackers, a Billion Users, and the Geo-Politics of the 'Social Graph'', *Anthropological Quarterly* 85.3 (2012): 927.

10 Andrew Huang, *Diary of Facebook*, Documentary, Biography, 2011, http://www.imdb.com/title/tt1882342/.

11 World Bank, 'Water Hackathons: Lessons Learned', Water Papers, Washington, D.C.: World Bank, May 2012.

12 Melissa Gregg, 'FCJ-186 Hack for Good: Speculative Labour, App Development and the Burden of Austerity', *The Fibreculture Journal* 25 (2015), http://twentyfive.fibreculturejournal.org/fcj-186-hack-for-good-speculative-labour-app-development-and-the-burden-of-austerity/.

These activities were interwoven with expressions of time anxiety. Someone, most often one of the software engineers, would ask us to sketch a production schedule. How long could we talk about the law? Could we scope the time of debate to assure ourselves that we could produce 'the demo'? As we negotiated milestone deadlines, Vipin pushed post-it notes around the board, representing the timeline leading up to the festival. This collective visualization of time forced us to work backward from the demo, bounding the time to build components, preceded by negotiating what we *could* do that we wanted to do, preceded by where we were now—understanding anything about the problem, to begin with.

Fairly quickly, major differences emerged in how Prem and Vipin understood politics to work. Vipin expressed technocratic fantasies of a website that could link dispersed Indian experts with state planners and politicians—a kind of 'Innocentive' for the development state, as he described it.[13] Vipin saw the law as a kind of code that sets incentives through punishment; fix the law, fix the nation. Prem, on the other hand, had studied the implementation of the Forest Rights Act and told stories of how the law moved through activists, district officials, and landless adivasis on the ground. The law as text was little match for the contingencies and power plays in which it was invoked. Prem, and many of us with him, did not share Vipin's faith in elite experts in substituting for the politics of the poor.

Prem and Vipin got into a heated debate and many of us sided with Prem. Working with and through Prem's ethnographic cases, our interactions that followed were peppered with the subjunctive: 'What you *could* do' and 'what if we'. Vipin left for a few hours, and taking advantage of his absence, we developed a concept called Jan Sabha, inspired by the Jan Lokpal, that would allow organizers to document face-to-face deliberations of poorer constituencies around central government issues. The hackathon seemed to accommodate more leftist politics. But, Prem warned us, it would require 'some REAL footwork' to get 'on the street' and work with existing organizations thinking in terms of political participation. As the sun sank deeper in the sky, we realized we had little time to reach out to NGOs or activist networks. We had little time to understand their information practices or to build trust with them. We could not even promise maintenance of any demo that came out of a potential collaboration.

That week, we weren't on the street. We were in the studio. The time, tools, and skills in the room were geared towards prototype work, not 'footwork'. Even the kinds of prototype work we could undertake was limited by the political economies of internet production in a country where few had direct access to the internet. Krish, a software engineer, explained to us that in the long term, the project could get into rural areas through interactive voice response phone systems, rural kiosks, or SMS-based systems. 'In Andhra, there's a women's radio station', he told us. 'The scope of what we want to envision is THAT. What we implement in five days is probably a website.' The skills in the room were of the web; web tools were those most at hand for urgent hacking. He continued, 'So we're going to go to a conversation where we'll chop

13 Shortly after Narendra Modi took office as Prime Minister, GoI announced a very similar website called mygov.in. The site called on citizen volunteers to offer 'expert advice' through design competitions and discussion forums. See, 'MyGov: A Platform for Citizen Engagement', https://web.archive.org/web/20141218060431/http://mygov.in/.

off everything. Cut. Cut. Cut. Cut. But if there's a master document that accompanying this chopped up little thing', he trailed off. The hackathon was an experiment in making prototypes of promising projects than dealing with the actual implementation of development work itself.

The next morning, Prem did not come back. While he liked the Jan Sabha idea, he did not trust Vipin to carry it forward faithfully. Vipin hoped to seek funding to carry the project forward from Ford Foundation and World Bank acquaintances. Whatever the politics we read into our demo, the demo would become a vehicle for generating more projects and funding to enrich the design studio, or perhaps the engineer-consultants who were at the hackathon. Jumping forward to today, I can tell you that we showed the demo at the festival and nothing in particular happened with it, but every year or so one of the engineers has written to ask me for mockups so he might build something finally. Hope springs eternal.

The hackathon carried with it a hidden pedagogy that I argue is in common with social enterprise and much design practice. I focus on three here in brief: 'a bias to action', the management of the political, and the elision of infrastructural labors.

The hackathon celebrated 'a bias to action'. This is not just my description, but an actor's category originating in McKinsey consultants Peters and Waterman's work on how to manage corporations in the face of the failures of rational, predictive, linear models.[14] The world, they argued, was one of complexity and rapid change. They advised that managers ought to quickly research, implement, experiment, and learn rather than run into 'analysis paralysis'. The 'bias to action', they advised, made it into job postings not only for the Delhi design studio but even for Google.[15]

To achieve a 'bias to action', politics and conflict had to be managed. Conflict could be useful for generating feedback about risks and opportunities to the project, but it ought not to stop action. Designers often discussed this problem as one of curbing 'talk'. After a particularly long debate, one designer told me, 'Give them lots of water. Lock the doors. They can't leave until they decide how to move forward'. Champions of 'the bias to action' contrasted it with stereotypes of other kinds of Indians: overly intellectual Malayali men who could find 'six sides to a cube', Bengali men in *adda* satisfied to talk deeply, or academics who attuned to political dilemmas over action. Collaborative design meant getting feedback from many kinds of people but not letting the project run aground over the political. The 'bias to action' celebrated by design works because of the kinds of networks, labor configurations, tools, and systems designers can mobilize quickly, extending their agencies out into the world.

This was the third hidden pedagogy: one of relying on hidden infrastructures—the building and maintenance labor of unseen others. The efficacy of hackathons required other labors—24/7 servers, code libraries written and maintained by others, Foxconn workers, and metal mining,

14 Thomas J. Peters and Robert H. Waterman, *In Search of Excellence*, New York: Harper Collins, 2004.

15 Eric Schmidt, Jonathan Rosenberg, and Alan Eagle, 'How Google Attracts the World's Best Talent', *Fortune*, 4 September 2014, http://fortune.com/2014/09/04/how-google-attracts-the-worlds-best-talent/.

for example. These infrastructures were ready to hand but maintained out of sight. As we prototyped a future system, we celebrated the design and the plan—the products of proper 'technological authorship' valorized in regimes the privilege of intellectual property and the creation of new forms.[16] These regimes vilify software pirates and while celebrating patent creators.[17]

At DevDesign, and in cultures of entrepreneurialism, these hidden pedagogies aligned with entrepreneurial citizenship in media beyond the digital.[18] At DevDesign and studios like it, designers similarly developed product design plans at a great distance from the extractive, factory, distributional labors that enabled an idea to actually matter to the masses. Design patents and design labor processes circumscribed moments of intention and form giving as creative. Such regimes took for granted and devalued the labors that make those forms available en masse—the labor of manufacturing workers and craftspeople that reproduce the design.[19] The maintenance and repair, or care, of these systems became an afterthought to the moment of innovation.[20] In the studios I worked, the labor of others—those other than designers—came to matter only when concerns of manufacturability threatened the authorial intentions of the designers and engineers.

These hidden pedagogies added up to an entrepreneurial ethos—one funders, philanthropists, and high-tech managers evangelized to transform civil society's relationship to capitalist development. The World Bank, for example, organized global hackathons to attract programmers—'non-traditional partners'—towards its water and sanitation partners and programs.[21] A bank's white paper on hackathons argued the events could 'orient non-subject matter experts to focus on the low-hanging opportunities'—opportunities for projects that aligned easily with the infrastructures, cultural practices, and institutional agendas of the bank and its allies.[22] Hackathons proliferate in the non-profit sector as a labor process to encourage experimental, digital labor. Participants bring their tacit knowledge, their desires, and even their existing working relations into a space where investors can evaluate and harvest emerging ideas and teams. They draw on the sociability, technical craft, and playfulness of the hacker to speculate in value.[23]

Other hackathons are possible.

16 Kavita Philip, 'What Is a Technological Author? The Pirate Function and Intellectual Property', *Postcolonial Studies* 8.2 (2005): 199.
17 Ibid.; Philip, 'Telling Histories of the Future'.
18 Irani, 'Hackathons and the Making of Entrepreneurial Citizenship'.
19 Arindam Dutta, 'Design: On the Global (R)Uses of a Word', *Design and Culture* 1.2 (2009): 163; Adrian Forty, *Objects of Desire: Design and Society from Wedgewood to IBM*, New York: Pantheon Books, 1986.
20 Steven Jackson, 'Rethinking Repair', in Tarleton Gillespie, Pablo J. Boczkowski, and Kirsten A. Foot (eds) *Media Technologies: Essays on Communication, Materiality, and Society*, Cambridge, Mass.: The MIT Press, 2013, pp. 221–239.
21 World Bank, 'Water Hackathons', p. 7.
22 Ibid., p. 15.
23 Gabriella Coleman, 'Hacker', in Benjamin Peters (ed.) *Digital Keywords: A Vocabulary of Information Society and Culture*, Princeton: Princeton University Press, 2016, pp. 158–172.

Activists have employed hackathons not to proliferate potential, but to sustain and extend collective resources and infrastructures. Open source hackathons operated according to this logic. Programmers came together to care for and extend the platforms and open source libraries that made their relations as a public possible.[24] In 2017, the Aam Aadmi Party proposed a hackathon as a way of testing democracy's infrastructures. They called on the Election Commission to allow experts to hack electronic voting machines in search of vote-tampering vulnerabilities.[25] The party publicized the Commission's refusal to allow machine tampering to generate publicity around election security.[26] In North America, activists also convened hackathons as public provocation and ad hoc labor formation. As the Trump administration took office in the US, North American researchers feared the administration would remove publicly available climate science data. Information activists convened hackathons to scrape and save endangered data through 'guerilla archiving'.[27] Anthropologist Andrea Muehlenbach, describing the event, asked, 'How then do we think of this event not only as a technical meet-up but as a possibility for building a larger and durable transnational public around the anticipation and protection of vulnerable data? We have the technical capacities, but what of the collective energies captured and engendered by this event?'[28] Like the entrepreneurial hackathon, this hackathon gathered people in urgent labor. Yet rather than demos—the promise of technology to come—the gathered people worked to produce archives in the present for common use by others in the future. Through this work, organizers also extended a public and attempted to inculcate in them a 'collective habitus around vigilance'.[29]

Both the Aam Aadmi Party hackathon and climate change hackathons cultivated an anticipatory sociality; they called on people to act on the future by caring for and extending complex, layered networks of digital technologies.[30] They made issues public, whether through party-based social life or work with the press. The hackathon allows organizers to gather and

24 Christopher Kelty, 'Geeks, Social Imaginaries, and Recursive Publics', *Cultural Anthropology* 20.2 (2005): 185.

25 Pankaj Gupta, 'Reply to Dr. Zaidi', May 26, 2017, eci.nic.in/eci_main1/current/ReplyAAP_27052017.pdf.

26 'Aam Aadmi Party to Hold EVM Hackathon on Same Day as Election Commission's Challenge', *The Indian* Express, 1 June 2017, http://indianexpress.com/article/india/aam-aadmi-party-to-hold-evm-hackathon-on-same-day-as-election-commissions-all-party-challenge-4684180/.

27 Andrea Muehlenbach, 'Building an Archive of Vulnerability: #GuerrillaArchiving at #UofT', *EDGI*, 2 January 2017, http://flolab.org/wp19/building-an-archive-of-vulnerability-guerrillaarchiving-at-uoft/.

28 Ibid.

29 Ibid.

30 See, Vincanne Adams, Michelle Murphy, and Adele E. Clarke, 'Anticipation: Technoscience, Life, Affect, Temporality', *Subjectivity* 28.1 (2009): 246; Geeta Patel, 'Risky Subjects: Insurance, Sexuality, and Capital', *Social Text* 24.4 (2006): 25. Adams, Murphy, and Clarke, building on Patel and others, argue that anticipation is a future-oriented 'regime of being in time' equally part of Marxism, decolonization, feminism, but also insurance companies, population management campaigns, and immunization. Institutions attempt to manage futures through techniques of techniques of calculation, socialization, and representation, as well as through hegemony. People might contest and struggle over these futures. Michelle Murphy, co-author of 'Anticipation', also co-organized the climate data archiving hackathon. The hackathon organizers took a technique for proliferating futures under the gaze of corporate sponsorship and venture capital and transformed it into a way of galvanizing people's vigilance in the struggle to fight for land, air, and life.

condense people's labors of care around those infrastructures held more publicly, more in common.

Entrepreneurial value speculation and eventful public care can overlap in regimes of private-public partnership. Civic hacking in the United States builds on a histories of data transparency as activism.[31] And yet, US government agencies also call on citizens' civic sense to hail 'free labor' under regimes of neoliberal fiscal austerity.[32]

Hackathons gather labor—technical, imaginative, communicative. As a vehicle for entrepreneurial citizenship, hackathons transform craft, sociality, and even hope into investable, managed futures. They extract from data and data labors performed and promised elsewhere. As a vehicle of care, however, hackathons might attract people to the often invisible labor of protecting data, expanding access, and sustaining resources that expand the field of political contestation.

31 Andrew R. Schrock, 'Civic Hacking as Data Activism and Advocacy: A History from Publicity to Open Government Data', *New Media & Society* 18.4 (2016): 581.

32 Gregg, 'FCJ-186 Hack for Good'.

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