

How Infrastructure Works: Inside the Systems That Shape Our World (by Chachra Deb)- A Book Review

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World Journal of Advanced Research and Reviews, 2025, 28(03), 1287-1288

Publication history: Received 11 November 2025; revised on 16 December 2025; accepted on 19 December 2025

Article DOI: <https://doi.org/10.30574/wjarr.2025.28.3.4198>

Abstract

This book review assesses Deb Chachra's *How Infrastructure Works: Inside the Systems That Shape Our World* as an interdisciplinary and accessible examination of infrastructure as a social, political, and moral system rather than a purely technical one. The review highlights Chachra's core argument that infrastructure shapes human agency by enabling and constraining everyday life while reflecting societal values, power relations, and historical inequalities. It emphasizes the book's relevance for public administration and governance, particularly in understanding infrastructure as a site of public value creation, equity, accountability, and long-term collective responsibility. The review also underscores Chachra's concept of infrastructure literacy, which encourages readers to recognize the often-invisible systems and labor that sustain modern life. While the book offers limited institutional or comparative governance analysis, this choice enhances its clarity and broad appeal. Overall, the review positions *How Infrastructure Works* as a valuable resource for scholars, practitioners, and students interested in infrastructure governance, social equity, and the ethics of the built environment.

Keywords: Infrastructure governance; Public value; Equity and equality; Human agency; Infrastructure literacy

Introduction

Deb Chachra's *How Infrastructure Works: Inside the Systems That Shape Our World* is a timely and compelling examination of the systems that make modern life possible. Written with clarity, interdisciplinary depth, and a distinctly humanistic sensibility, the book reframes infrastructure not as a neutral technical backdrop but as a social, political, and moral architecture that undergirds collective life. For scholars and practitioners in public administration, public policy, and governance, Chachra's work offers a valuable bridge between engineering knowledge and questions of public value, responsibility, and equity.

The book is organized into eleven chapters, with its conceptual foundation established early, particularly in Chapters One through Four. These chapters define what infrastructure is, how it functions, and why it matters, setting the analytical and normative framework for the more thematic discussions that follow.

The opening chapter, "Behind the Light," uses the electrical grid to introduce what Chachra describes as the paradox of infrastructure: its essential invisibility. Electricity becomes noticeable primarily through its absence, a reality made clear through events such as the 2003 Northeast blackout. Chachra demonstrates that electricity is not merely a commodity but a shared lifeline that structures economic activity, healthcare delivery, and everyday social participation. By beginning with electricity, she situates readers within a framework of interdependence and vulnerability that anchors the remainder of the book.

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Chapter Two, "Infrastructure as Agency," advances one of the book's central arguments: infrastructure shapes human agency by expanding or constraining what people are able to do. Moving beyond the materiality of pipes, wires, and roads, Chachra presents infrastructure as a political and ethical project. Decisions about infrastructure design, placement, and maintenance determine whose mobility, safety, and opportunities are enhanced and whose are limited. For public administration scholars, this chapter is especially salient, as it frames infrastructure as a site of public value creation and contestation.

In "Living in the Networks," the third chapter, Chachra explores how individuals inhabit overlapping systems of exchange, including water distribution, sewage treatment, transportation, and digital communication. She emphasizes the scale and complexity of coordination required to sustain these networks and the collective risks embedded within them. As infrastructure expands from household systems to regional and national networks, failures become more consequential and more unevenly distributed. Chachra argues that this interconnectedness should cultivate civic humility and a recognition that modern life is sustained through collective effort rather than individual self-sufficiency.

Chapter Four, "Cooperation on a Global Scale," places infrastructure within a planetary context. Global supply chains, submarine internet cables, international shipping networks, and climate-sensitive water and energy systems illustrate the extent to which infrastructure constitutes humanity's largest collective project. Chachra highlights the tension between the long-term temporal demands of infrastructure planning and the short-term horizons of political decision-making. This chapter forms the philosophical core of the book, positioning infrastructure as both material and moral, requiring cooperation across borders, generations, and institutions.

The subsequent chapters build on these foundations by examining the social and political dimensions of infrastructure in greater detail. Chachra addresses inequitable access to water and electricity, the often-invisible labor of operators and technicians, the politics of maintenance and repair, digital infrastructure governance, and the ecological consequences of carbon-intensive systems. While these chapters vary in focus, they collectively reinforce the book's overarching claim that infrastructure reflects societal priorities rather than neutral technical necessity. Chachra's interdisciplinary approach; drawing from engineering, history, ethics, and social science, remains a consistent strength throughout.

One of the book's most significant contributions is its emphasis on what might be termed infrastructure literacy. Chachra encourages readers to learn how to see infrastructure by paying attention to everyday systems such as power lines, drainage grates, water towers, and substations. Through vivid narrative descriptions rather than technical schematics, she humanizes infrastructure and foregrounds the labor and care required to sustain it. This pedagogical approach makes the book particularly well suited for classroom use and for readers outside technical fields.

The book is especially relevant for public administration and governance scholarship. Chachra makes clear that infrastructure decisions are deeply political, embedded in budgeting processes, regulatory regimes, public-private partnerships, and historical patterns of exclusion. Examples such as highway construction through Black neighborhoods, redlining, and disparities in broadband access illustrate how infrastructure has frequently reinforced inequality. By framing infrastructure as neither neutral nor apolitical, Chachra provides public administration scholars with a compelling lens through which to examine equity, accountability, and public responsibility.

How Infrastructure Works succeeds in offering an accessible, interdisciplinary, and morally grounded account of the systems that sustain modern life. Its strengths include clear and engaging prose, an effective synthesis of technical and social analysis, and sustained relevance to pressing issues such as climate change, resilience, and social equity. One limitation is that the book offers relatively limited institutional or comparative analysis. Readers seeking detailed governance models or cross-national infrastructure regimes may find parts of the discussion introductory. However, this choice also enhances the book's accessibility and broad appeal.

Deb Chachra has written a rare work that is technically informed yet philosophically reflective, critical yet hopeful. By illuminating the often-invisible systems that shape everyday experience, she challenges readers to reconsider infrastructure as a collective, interdependent, and deeply human endeavor. For scholars, practitioners, and students of public administration and public policy, *How Infrastructure Works* provides a valuable framework for reimagining the governance and ethics of the built world.