Standards: Recipes for Reality by Lawrence Busch (review)

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sure, or simple panic (as in some airline crashes). Some new branches of engineering, for example “pedestrian dynamics” analyzing crowd behavior and building evacuation, are responding to these needs, as “fracture mechanics” has dealt with others since the 1970s. Should the human dimension have a greater part in engineering education? If so, To Forgive Design should be required reading for all aspirng engineers.

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Standards: Recipes for Reality.


Standards: Recipes for Reality by Lawrence Busch, the first in the MIT Press Infrastructure series edited by Geoffrey Bowker and Paul Edwards, examines the interconnected, complex, and path-dependent histories of social and technological standards that frame and facilitate the world around us. While topics such as licensing, accreditation, credentialing, and policy are often seen as mundane and dry, Busch treats his readers to a trove of carefully researched and engaging stories and insightful observations to expose the powerful role of standards in contemporary life. But as rich as it is with examples and vignettes of how the lived experience is framed by standards and standards-making processes, this book is much more than that. Even as he explains the details of standards, Busch deftly implicates Enlightenment-era philosophy and the implementation of neoliberal economic thought as deeply embedded systems of social value and accreting socio-technical systems that control and direct markets, institutions, and governance at increasing levels of scale.

The opening chapter reveals the power of standards by examining common historical examples. Motivated by familiar theories of power and embodiment, such as those of Michel Foucault and Bruno Latour, Busch points out the significant agency (and its often hidden sources) imbued into systems of constraint and enablement that standards represent through the control of both humans and objects. Drawing a distinction between different benchmarks that standards set—Olympic thresholds, filters, divisions, ranks—he provides a useful set of criteria for examining the classifications and categories by which evaluative regimes are constructed. Moving through a broad range of historical examples that include religious standards of moral conduct, the normalization of scientific communication, achieving commensurable measurements of time, constructing a disciplined military through standardized construction of the soldier, and the
rise of scientific management, Busch lays out the applications and consequences of standardization processes as they are adopted, grow, and give shape to formative infrastructure.

While standards are often employed to assure consistency, Busch then inverts the argument to show how standards are also used to differentiate categories in measurable ways. Linking this to the early-twentieth-century rise of neoliberal economic reform, Busch traces the co-adaptation of standardized differentiation with the advancement of a new industrial society fueled by the creation of new standards, systems of certification and accreditation, and complex arrangements introduced by the legal regimes of licensing.

Delving into issues of ethics and justice, Busch scales up the argument once again by showing how the interaction between different standards often leads to tension in their implementations, and produces sticky questions of ethical import. If, as Latour has pointed out, technology is society made durable, then standards might be similarly considered social values made technological. He motivates a deep discussion of ethical friction vis-à-vis Luc Boltanski and Laurent Thévenot’s six logics described in On Justification (English version, 2006). Describing the different considerations in civic, industrial, inspirational, domestic, opinion, and environmental standards, he explores in detail the question of what makes a “good-quality automobile” as a site of contention in the application of standards.

As standards implicate not just economic differentiation, but governance of both people and objects, Busch takes his narrative to the role of experts defined by standards of performance and their role in enacting the complex divisions of labor required for performing a functioning democracy. Through the standards-laden framework of cost-benefit and risk analysis, Busch draws out a historical case for these methodologies’ role in policy-based decision making that affects not only the individual, but necessarily enrolls larger demographic segments.

The conclusion draws together the observations on the historical dynamics of standards to suggest eleven guiding principles for future standards-making policy formation and implementation. With an eye toward fairness, equity, and effectiveness, Busch balances a reasoned consideration regarding the sensitivity of contexts in which standards are applied with the openness and indeterminacy of the futures opened and foreclosed by applying power through standards processes.

Lawrence Busch’s Standards: Recipes for Reality is an expertly told collection of historical, economic, and social examples of the myriad ways in which standards frame everything from purchasing a cup of McDonald’s coffee to coordinating the global shipment of industrial goods to directing the execution of democratic ideals. Busch’s accessible and jovial style renders a typically invisible and difficult set of topics in ways that are engag-
ing for newcomers to the subject, but also speaks clearly to the community of expert thinkers in the field of standards and infrastructure studies as a rigorous discussion of neoliberal trajectories in society.

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Ships on Maps: Pictures of Power in Renaissance Europe.


Richard Unger sets out to show why ships were, for a time, standard decoration on European maps. They first appeared on maps in the late thirteenth century; they had become commonplace by the mid-sixteenth century; and they were almost gone by the eighteenth century. Unger points out the coincidence of this chronology with the early period of European seaborne discovery, when control of the oceans was at the forefront of European political ambitions. The trajectory that he traces ends with the development of the European idea of the freedom of the seas in the late seventeenth century and with a change in attitude toward scientific illustration and aesthetics.

Unger emphasizes the onrush of data that overwhelmed Europeans—and European maps—in the sixteenth century, creating the conditions for a geographical frenzy and the rise of the map as the most powerful approach to data visualization of the time. He suggests some of the ways in which mapmakers in different parts of Europe accessed and integrated knowledge, reflecting, for example, local shipbuilding traditions and different levels of concern for accurately placing the various types of ships in the areas where they would have traveled. Although ships play a smaller role than one might expect, given Unger’s earlier work, he points out the importance of certain maps (ones that do provide highly accurate images of ships) as evidence for developments in shipbuilding and especially in rigging, which tends to be poorly documented in the archaeological record.

Although there is much interesting information along with some thoughtful interpretative ideas in this book, it falls short of its potential in a couple of ways. First, Unger is cautious in his answers to his central question, offering rather vague formulations and tentative claims. This modesty not only undersells the interesting suggestions that he does make, but also seems to excuse a certain thinness in the analysis. Unger says at the beginning that he will embrace the varied techniques required by the history of cartography, including exploring the context of a map’s production and reception. Oddly, he spends little time on what is perhaps the most impor-