Zayani, M. and J. Khalil. *The Digital Double Bind: Change and Stasis in the Middle East*, Oxford : Oxford University Press, 316 pp. \$27.95 ISBN: 9780197508626 (pbk)

By Geoffrey Hughes, University of Exeter

The spread of digital technologies in the Middle East has inspired a rapidly growing literature on the topic. Euphoric and dystopic accounts of the role of technology in the "Arab Spring" and its aftermath jostle for shelf space with technocapitalist manifestos. Then there are more staid reports from the United Nations, consultancies like Deloitte, and industry lobbyists documenting the actual rollout of digital infrastructure. This is to say nothing of the wealth of journalistic and ethnographic accounts exploring how digital technologies are both transforming everyday life and reinforcing preexisting dynamics. One might start to feel like the Abbasid era polymath Al-Jahiz, who was apocryphally crushed to death under his own books during the Baghdad earthquake. Yet much of this literary output is now experienced as digital ephemera embedded momentarily in microscopic electronic circuits. In this context, Mohamed Zayani and Joe Khalil's physical tome seeks to survey and theorize this literature using the titular concept of The Digital Double Bind. The double bind here diagnoses a communicative dilemma where one is confronted with contradictory messages, creating a "no-win situation" where a successful response to one message would involve a failed response to another (5). This double bind helps explain seemingly paradoxical dynamics in the uptake of digital technologies, like a government desperate to promote economic growth to head off mounting protests promoting technologies that will enable protesters to organize more effectively—or the same protesters organizing using technologies that they know are designed to betray them.

The book draws on a mixture of technical reports, press coverage and academic literature on the uptake of digital technologies in the Middle East as well as the authors' extensive experience tracking these developments firsthand (though this is largely implicit after the acknowledgments). It begins with a brief theoretical statement outlining the digital double bind and how it captures the coexistence of change and stasis and resistance and repression in the region's digital political, economic and cultural practices. In part two, the authors trace out the development of the region's digital infrastructure over the *longue durée*. They touch briefly upon the emergence of the printing press, state censorship regimes and a region-wide Arabiclanguage public sphere during its 19th century nahda or "renaissance." However, the bulk of the discussion works outwards from the undersea cables and satellites that came to form the backbone of the region's digital infrastructure in the late twentieth century towards the human side of infrastructure: the production of skilled technical labor and the wider legal, economic and cultural environment that sustains it. In the next three parts, the book considers the political, economic, and cultural implications of the digital in turn, beginning with its enticements before coming to dwell on its more subversive effects and the increasing domestication of these technologies by powerful incumbents: Digital citizenship promises freedom and good governance but finds itself subject to surveillance and manipulation; the knowledge economy promises growth but disrupts existing patronage networks in destabilizing ways requiring regulation; social media promises new forms of self-actualization but upends traditional value systems and provokes a patriarchal backlash.

The book is at its most compelling when it warns of the orientalist trap of treating the Middle East as caught in a time lag (7) and critiques an obsession with national league tables detailing "leaders and laggards" (50) that "overlooks the extent of the region's technological interdependency" (51). Such teleological thinking also ignores how people in the region sometimes "leapfrog" and adopt new technologies before those mired in legacy infrastructure can (35-37). Instead, the authors disaggregate the region into three distinct digital Middle Easts that are nonetheless intimately interconnected through skeins of labor migration, capital flows, cultural exchanges and diplomatic intrigue: 1) a small core of wealthy petrostates in the Arabian Peninsula with lavish digital infrastructure 2) the surrounding countries that provide much of the skilled labor for the Gulf yet struggle to develop their own infrastructure and domestic consumer markets 3) the most deprived and war-torn countries. Here, citizens are largely left to fend for themselves—though as the authors rightly note, we certainly should not see a country like Syria (where the state has given grisly new meaning to the idea of "weaponizing" social media) as "merely lagging" (41) in the digital domain.

However, the book often struggles to escape from the normative assumptions of its source materials and live up to its own laudable ambitions. The authors repeatedly judge the digital Middle East to fall short of their idealized version of American and especially "Silicon Valley" technological innovation. In this way, despite warning of the dangers of "digital orientalism" (99) it sneaks in through the back door as the digital is taken to be inherently subversive of the region's prevailing political, economic and cultural arrangements. In explicit contrast to the region, the book treats the digital as "inherently horizontal" (108) and having a "natural tendency... toward decentralization" (54). E-government is seen as normatively transparent and open (110) and digital entrepreneurship is seen as normatively free of political clientelism (159) and—perhaps most dubiously—as depending on "good governance and transparent regulations, the rule of law, the elimination of corruption and the improvement of government efficiency" (127-128). Yet even the book's choice of case studies highlight how digital entrepreneurship has been built on tax evasion (Soug, now an Amazon subsidiary), flouting licensing requirements (Careem, now merged with Uber) and the questionable appropriation of intellectual property (Anghami, "the Spotify of the Middle East"). While this somewhat idealized polarization between the technology's affordances and the region gives the Digital Double Bind much of its *frisson*, it often comes at the expense of capturing the actual complexities of the digital on the ground.

While the authors are certainly correct on some level that "the Middle East is no Silicon Valley" (170), neither is the rosy Silicon Valley of the book (and the implicit foil against which the digital Middle East is judged) particularly analogous to the actual Silicon Valley. While the authors note that "it is easy to lose sight of the fact that Silicon Valley is deeply intertwined with American political, economic and cultural dynamics" (172) and that "military spending on defense-related R&D" (170) played a role, the overall image in the book is one of "business-led economic development" (171). California is treated as having a "culture of openness and acceptance" and "a long culture of exploration dating back to westward expansion, which lends California its 'vibe' to this day" (170). As a descendant of California settlers, however, this reader could not

help but wonder how the California genocide, the Chinese Exclusion Act and the Japanese internment fit into this "vibe." At the height of the gold rush, miners who had been lured West with false promises of easy money organized themselves into Indian-hunting militias, confiscating their lands, taking heads, and selling the survivors into slavery. When white miners murdered Chinese competitors, courts ruled that only whites could testify (Harris 2023). Any serious comparison with Silicon Valley capitalism needs to begin by grappling with the forms of accumulation through dispossession it was founded upon.

More proximately, *The Digital Double Bind*'s uncritical treatment of Silicon Valley minimizes the instrumental role played by the "closed world" (Edwards 1996) of America's military-industrial complex in nurturing both computing and Silicon Valley itself. Digital networks can be designed to be open, decentralized and horizontal, yet many of these systems were first designed by the US military during the Cold War to maintain command and control functions amidst the threat of nuclear decapitation strikes and fears of domestic infiltration. That "open" applications of once closed digital networks have had a profound impact on particular communities (especially academics who came of age during the early years of the Internet) does not necessarily make them natural or inherent. Similarly, there is a surprising lack of discussion of how postwar American labor peace, mass consumer culture, and ensuing democratization and tech boom were underwritten by the exploitation of vast reserves of cheap Middle Eastern hydrocarbons (Mitchell 2011). If the digital Middle East is built on state patronage (and surveillance), authoritarian governance and the exploitation of unfree labor, then these do not necessarily distinguish it from Silicon Valley.

The Digital Double Bind offers a useful typology of the uneven development of digital networks in the region, yet too often shied away from theorizing the persistence of exploitative coreperiphery dynamics amidst the increasing fragmentation of the colonial world system. For instance, while there are some gestures to the role of migration in generating demand for digital technologies (75-76, 85), structuring Middle Eastern labor markets (131) and offering a realworld application for digital e-government technologies (110-111), the relationship between migration and the control of labor in digital economies remained under-theorized. There was a notable lack of discussion of the kafāla system that dominates the Gulf's tech sector and binds employees to employers in a semi-dependent relationship similar to (but also more intense than) US and European tech sectors' reliance on work visas. At one point, the authors even suggest that "the IT sector in the Middle East is genuinely multinational, benefiting from... the free movement of labor" (135). The local tech sector certainly benefits here and skilled tech workers obviously constitute a labor aristocracy of sorts. Yet what does "free movement" mean to those who build the gleaming tech campuses, who are often confined in barrack-like work camps and can be easily deported if they try to unionize or simply complain about their working conditions? Presumably, this is what the authors envision when they speak of "citizen entitlement" in the wealthy Gulf states and how "at least in theory" it "depresses the motivation to attain education and develop entrepreneurship" (131)—thus necessitating the importation of labor from abroad. Moreover, a greater focus on migration and its governance would also have helped to temper the somewhat naïve treatment of e-government as "premised on the very transparency and openness that are anathema to the region's political

culture" (110). As many Middle Easterners who have been arbitrarily detained at airports based on (allegedly) algorithmically-generated risk models can attest, e-government can be anything but open and transparent.

The Digital Double Bind is at its most analytically sophisticated when it traces the combined and uneven development of the digital across the Middle East as it both remakes the region and entrenches old antagonisms. Digital technologies facilitate political dissent, tax evasion, unregulated gray markets, intellectual property theft and the flouting of patriarchal norms even as they become valuable tools that states mobilize for surveillance, propaganda and hybrid warfare. There are winners and losers for sure, but as the authors demonstrate convincingly the overall trajectory is topsy-turvy and primarily amoral. For instance, at one point in its recent conflict with Qatar (over Al-Jazeera's coverage among other things), Saudi Arabia was broadcasting a free, pirated version of Qatar's licensed coverage of sporting events as part of its wider physical blockade of the peninsula (115). Ultimately, the sheer inventiveness of such digital actors in the region cannot be contained by the strictures of social theory. Unfortunately, the book's overall structure and the theoretical treatment of the empirical case studies give the impression too often of a region in the thrall of change-resistant elites waiting for the enlivening touch of Western digital technologies. Yet as the book's various assertions about the inherently dynamic implications of digital affordances for the region unravel (including their alleged transparency, openness, decentralization and horizontalness) one comes to wonder whether the book might not be describing a double bind but rather a bunch of disparate learning curves.

Edwards, Paul. 1996. The Closed World: Computers and the Politics of Discourse in Cold War America. Cambridge, MA: MIT Press

Harris, Malcolm. 2023. *Palo Alto: A History of California, Capitalism and the World*. London: Little, Brown and Company.

Mitchell, Timothy. 2011. *Carbon Democracy: Political Power in the Age of Oil*. London: Verso Press.