

## Book Review<sup>1</sup>

Mireia Fernández-Ardèvol, Hernán Galperin, and Manuel Castells (Dirs.). *Comunicación Móvil y Desarrollo Económico y Social en América Latina*. Barcelona, Spain: Ariel/Fundación Telefónica, 2011, 392 pp., ISBN 978-84-08-09969-7, €16.50 (paperback).

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It is commonly acknowledged that the adoption of information and communication technologies (ICTs) began to proliferate in the mid-1990s. The creation of the first graphical Web browsers—Mosaic and Netscape Navigator—and, especially, the commercialization of the Internet made it possible for the general public to begin appropriating technologies and tools that would change their lives. Though relegated to the background, another factor that would alter people's lives was the 1995 implementation of the GSM network, the first digital network for mobile communications to enable mobile phones to send SMS, faxes, and general data without wires.

The different deployment of communication infrastructures around the globe since the Industrial Revolution, along with greater device and service affordability, implies that the paths of adoption of the Internet and the mobile phone have not run on parallel tracks. Fixed-broadband subscriptions were 5.6 times greater in higher-income countries than in lower-income ones, with the latter growing at a very low rate. Meanwhile, the difference in mobile-cellular subscriptions was "only" 1.6 times higher for richer countries, but the trend indicated a quick closing of the gap (ITU, 2011), even though mobile broadband followed the path of fixed broadband.

Statements describing the potential of mobile phones for development—or "M4D" in the jargon—have ranged from being just optimistic to promising to end poverty around the globe. Communications, papers, even a full series of conferences—Karlstad (Sweden), 2008; Kampala (Uganda), 2012; Dehli (India), 2012—have been devoted to the topic.<sup>2</sup> It is in this framework that *Comunicación Móvil y Desarrollo Económico y Social en América Latina* [Mobile Communication and Economic and Social Development in Latin America] appears to provide a thorough and well-structured analysis of mobile phones for development, from theory to practice, from quantitative aggregate analysis to qualitative case studies.

This work, not coincidentally, shares two authors with another book, *Mobile Communication and Society*, by Castells, Fernández-Ardèvol, Linchuan Qiu, and Sey (2006). In that earlier work's 8<sup>th</sup> chapter, titled "Wireless Communication and Global Development," the authors briefly reviewed impacts that mobile phones were already having on the lives of the poorest. Both works, then, could be viewed as a pair: the first (2006) presenting a general approach to the adoption and impact of mobile

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1. *Managing Editor's Note: ITID Editor-in-Chief François Bar and Guest Editor Hernán Galperin have recused themselves from the editorial process of this review as they are co-authors of this book.*

2. *For a quick update, please see also Donner (2008) and Fernández-Ardèvol & Ros (2009).*

communications (mostly from a sociological point of view) and the second (2011) continuing the former's thrust, but framed in Latin America and with a development studies approach.

*Comunicación Móvil y Desarrollo Económico y Social en América Latina* begins with three powerful statements: (a) Mobile communications are not about mobility, but about permanent connectedness; (b) this permanent connectedness enables the pervasiveness of networks in all matters of life; and (c) pervasiveness of access to information and communications usually means autonomy and thus empowerment. Besides health (the most basic of human needs), all others, from education to governance, can be understood or defined in terms of information and communication.

The three first chapters provide a broader explanation to those issues, heavily relying on data from different sources. These chapters offer quantitative evidence on mobile phones' impact on livelihoods and the economy, going beyond the purview of other (valuable) works like Wicander's (2010) *M4D Overview 1.0: The 2009 Introduction to Mobile for Development*, which purposefully limits itself to the revision of the main literature on the topic.

What the authors succeed in proving, statistically, and with significant results, is that mobile phones have a positive impact upon economic growth. This impact is strongly related to market efficiency due to more (and better) access to and management of information. Others, such as Donner and Escobari (2010), have also suggested this impact, and it is the seed of Duncombe's (2012) interesting research framework.

More important, though, than the relationship of causality to mobile telephony and economic growth is how it works. The authors do not find the usual direct impact on the economy, but instead the result of network effects (Torrent-Sellens, 2009). So, the more established the network is, the smaller the effects of mobile phones on economic growth. The poorer the country is, the higher the impact on economic growth of mobile phones. As a country's economy becomes healthier and richer, mobile phones play a lesser role, yielding increasing returns but decreasing marginal returns.

Network effects on inequality are unexpected: They show no effect on either reducing or increasing inequality. Adoption rates of mobile telephony are already very high in the region, with an average cov-

erage of 90% of the population. Practically any strata of society already has access to mobile telephony; thus, there is no significant difference in being able to access mobile infrastructures and devices. So, while mobile phones do decrease poverty, it is a global shift in the economy that they enable, while maintaining the inner relationships of economic power and thus also maintaining the existing inequalities.

Part of this upward shift in the economy can also be seen in the positive impact on employment. Mobile phones make possible higher degrees of disintermediation of the job market, as well as the opportunity to move freely within market-rigid structures. Access to more and better information enables autonomous workers to get jobs or to identify where work needs to be done.

The authors also stress the fact that this autonomy does not only happen in the economic sphere: Outside of the economy, autonomy equals security and the feeling of security, as distant communication reduces the exposure to different kinds of violence and hazards.

The increase of autonomy should not be misunderstood as leading to an increase of the levels of isolation of citizens or firms. As the authors have explained, related to the creation of networks and their effects on the economy, autonomy is accompanied by closer bonds with peers, both at the personal and professional levels. Connectivity among people is increased, along with the feeling of community and the sense of shared identity.

This sense of connectivity leads the authors to note that their "research confirms that in Latin America communication is organized around the mobile phone, the latter being presented as an alternative to services that never became massive in the region" (p. 323). Despite barriers associated with the affordability of services and devices, people in Latin America have been creative in the adoption of the new technology—due to the lack of most restraints—and employ it in ways that were unthinkable in richer countries.

Chapters 4, 5, and 6 of *Comunicación Móvil y Desarrollo Económico y Social en América Latina* provide analysis of cases that help to add context and real-life experiences to what cold and raw data reveal on the spreadsheet. This is where the reader can find the answer to the \$1 million-dollar question: Why would people spend such a relatively high

amount of their income on communications rather than on food. The short answer, though obvious, is seldom answered by academic literature in such a straightforward manner—because it is worth doing so. The cases analyzed provide personal interviews and aggregated data on how important mobile phones are for socialization, employability, and inclusion in general.

Indeed, a tacit point is made in the cases where communications are not considered a driver of inclusion, but of nonexclusion. While the results might seem similar at the end—communications equals inclusion—the points of departure totally differ and considering the mobile phone as a way to fight exclusion is more coherent with what evidence also tells about the nonreduction of inequality. These facts strengthen the hypothesis that mobile phones increasingly are a general purpose technology, which is often easier to identify, not by its positive impact but by its negative impact when it is not generally adopted.

Chapter 7, even if it speaks about youth culture and mobile telephony, can be interpreted differently—how institutions in general, particularly the educational system, are lagging behind the evolution of technology. The analysis of youth culture and its relationship to mobile phones perfectly depicts how educators and policy makers should definitely rethink their teaching strategies and leverage the power of mobile technology and mobile (read here “ubiquitous”) access to knowledge. The transcripts of some interviews that the authors conducted with youth do not speak about a digital divide between different generations but about a sheer “mind-set divide.”

This mind-set divide does not belong to the usual gender discussion. The work here showcases how the so-called gender divide (i.e., women are less prone to be technically proficient than are men) is a result of other more basic differences in the offline world. When women have the chance to use ICTs for their benefit—as in the case of Peruvian women in rural markets—not only do they do so eagerly but the mobile devices reinforce their important role on their local economies. Hilbert (2011) also demonstrates this for the same region; it is likely that forthcoming scholarly literature will take this into account.

There are two topics that some readers would expect to see treated in deeper detail—the *knowl-*

*edge gap hypothesis* and the *leapfrog hypothesis*. Not that these issues are not constantly present in this work, but an explicit mention would be welcome.

Regarding the knowledge gap hypothesis (Tichenor, Donohue, & Olien, 1970) the book tacitly confirms the findings of others (Schradie, 2011; Warschauer & Matuchniak, 2010; Yang & Zhiyong Lan, 2010): Technology adoption does not affect inequality, but social inequality does affect unequal technology adoption. Thus, even if the rates of penetration are very high, those in the poorest strata of society are not accessing mobile telephony or broadband. Even when there is a general adoption, socioeconomic inequalities are replicated as inequalities in mobile adoption or inequalities in communications, especially at the usage level (i.e., what for and how).

The leapfrog hypothesis is directly addressed by Castells et al. (2006) in Chapter 8 of *Mobile Communication and Society* when they note that “there is no overwhelming evidence to support the leapfrog hypothesis in terms of eliminating stages of economic development” (p. 216)—only evidence of closing the gap between the richest and the poorest. Thus, the “observations document the excessive optimism that surrounds this new magic bullet of development” (p. 243). This lack of evidence to support the leapfrogging hypothesis has already been identified (Howard, 2007; Peña-López, 2009; Wang, Wei, & Wong, 2010) and is again supported by *Comunicación Móvil y Desarrollo Económico y Social en América Latina*. But a more explicit statement would be desirable.

In fact, this is probably the book’s strength and its weakness—its neutral, objective, academic approach to the topic of mobiles for development. This approach is a strength, as the work is rich in data, well-measured statements, and detailed examples that provide the reader with sufficient information to draw one’s own conclusions. But, on the other hand, the work keeps a safe distance from entering into providing explicit advice to policy makers, even if there are plenty of conclusions that are undeniably addressed to them. One would have nevertheless expected a last part—or chapter—that decision makers could use as an easy and understandable takeaway they could staple to their walls. Providing solid advice should not be at odds with academic rigor. ■

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