GUEST EDITORIAL PREFACE

Special Issue on ICTs in Latin America

Toby Miller, Loughborough University London, London, UK

REALISMO MAGICO? MESTIZAJE? THE LATIN AMERICAN INVENTION OF THE INTERNET

Latin America is both the most and least postcolonial region in the world. It is the most postcolonial because it held that status prior to most of Asia and Africa. And it is the least postcolonial, because it remains dominated by the two languages of its former masters and is interdependent with the "other" America. As the former dictator/modernizer Porfirio Díaz put it, 'Pobre de México, tan lejos de Dios y tan cerca de los Estados Unidos' [Poor Mexico, so far from God and so close to the United States]. Or rather, that's the standard nostrum (quoted in "Gently," 2009). Another version attributes the expression to the public intellectual and porfirista Nemesio García Naranjo (González Gamio, 2013).

Contested origin myths like that one are typical of the interplay of truth claims in and about Latin America, where imagination, history, spirituality, and science have had rough-and-tumble interactions for centuries, and contradiction is a way of ironized life.

Consider the political economy. Many Latin American economists, both academic and governmental, shifted from Marxism and Keynesianism to monetarism in the 1970s, most notably the notorious 'Chicago Boys,' so brutally complicit with Chilean fascism (Valdez, 1989). Under the democratically elected socialist Salvador Allende (1970-73), unemployment in Chile had run at 4.3%. Under the dictator Augusto Pinochet (1973-90), it reached 22%. Real wages decreased by 40%, and poverty doubled (Palast 2003: 201; Maira 2002: 83-84). Well done, Boys.

But then the region witnessed a dramatic turn away from dictatorship and market fundamentalism, towards democracy and populist socialism. What had been a laboratory for mad neoliberal experiments with human welfare that gave us not only juntas but the global financial crisis was transformed into a harbinger of social movements articulated to progressive politics, from Mexico's Zapatistas on the eve of new trade deals with the US and Canada twenty years ago to the indigenization of political life in Bolivia and its equalization in Uruguay today.

Greece's Syriza and Spain's Podemos are clearly tied to the Latin American example of how parliamentary democracy can be connected to grassroots activism. Because inequalities in Latin America are so savage, and coded by race as well as class, this in turn relates to the extraordinary mixed heritage of people in most nations of the region, and that mélange of fact and fiction to which I referred above, where utopia conditions dystopia and vice versa.

The notion of realismo mágico (magical realism) is widely associated with Latin American art and literature. A complex, at least paradoxical blend of scientific observation and utopian hope, of imaginative anthropomorphism and description of the natural world, of Western Enlightenment preoccupations countered by indigenous cosmology, realismo mágico incarnates the coeval and coterminous spread of tradition and modernity. This matches the continent's official and vernacular ideologies of mestizaje, or mixedness.

Mestizaje stands testimony to a shared history of invasion, sexual violence, and slavery that goes back many hundreds of years. As native American, European, and African genes merged, so of course did their cultures, simultaneously forging new ways of being and sustaining more than traces of older forms. This is no blanket description of an inclusive multiculturalism—all sides may at times embrace and at others curse the concept. For instance, indigenous Argentines are a small minority, and many African-descended peoples, in Brazil or Colombia for example, are excluded or exclude themselves from the norm. But the term mestizaje is applied in everyday talk by most Latin Americans in most countries. And realismo mágico offers a metaphorized mestizaje contact story in which European and creolized elites encounter native peoples, flora, and fauna. Each leaves their mark on the other, albeit in a frequently tragic and unfulfilling way that is characterized by domination and inequality.

The dual concepts of realismo mágico and mestizaje help explain the complex history of development and modernity in countries that were imperial possessions for much longer than the rest of the modern world—and gained their independence much earlier. The Latin American experience is distinctly different both from colonized zones that remained largely intact genetically and culturally during European colonialism (Indonesia and India) and those that saw the overwhelming, ongoing demographic dominance of white settlers (Aotearoa and the United States).

Given that unique history, how has the region experienced and altered contemporary communications technology? We are often told today that the digital world is transforming poverty and politics: leveling out opportunity, increasing social mobility, and enabling what is still referred to in Latin America as 'development.' Does that apply here?

Raymond Williams emphasises that technological innovation typically derives from prevailing 'social relations and cultural forms' that condition the 'selection, investment and development' of the media. Take radio. It might be said to have begun with the announcement of the radio wave in the late 19th century, a finding that depended on previous knowledge of the conduction of electricity. That stimulated technical experimentation, born out of a desire for improved telegraphy and telephony, and encouraged by private enterprise and the armed services (1989: 120).

The mostly male operators of the 1920s battled technological difficulties on a daily basis, exemplifying self-reliance and innovation. As one of these self-styled 'radio maniacs' put it, the search for perfect reception was a struggle against 'the endless perversity of the elements' (quoted in Douglas 1987: 308). Before the advent of the sealed set (Apple's model for its hermetic paranoia today) both Germany and Australia saw union-owned stations pioneering choral response via two-way radio, a dream of worker-actor collaboration across the ether.

Lesley Johnson's account of Australian radio between the 1920s and 1940s (1988) mentions some core policy and everyday queries from the time: how are we to conceptualize the relationship of stations and listeners, whether at the hearth or in the kitchen; what is the appropriate division of public and private in broadcasting; how can ownership be regulated; and what has

changed from the days when merely setting a receiver up that worked was a true sign of consumer mastery, to the sealed-set efficiencies and deskilling of the war years?

The proliferation of broadcast towers and loudspeakers made radio an effortless listening medium at the same moment as the advent of sealed sets made it a one-way device, with transmission centralized and only reception diversified. Now an apparatus of consumption rather than mastery, the will to buy advertised goods became its defining quality in many countries (including Latin America). With the advent of transistors, radio developed genres and themes for stations to organise listeners; increased its capacity for transmission and reproduction; and mobilised new spaces of reception, such as the beach, car, and workplace. It displaced the newspaper's monopoly over time—but limited spatial reach—by temporal continuity and a less measurable and contained dominion over space. This transformative history was clearly conditioned by both overlapping and successive inventions of the device, as governmental, military, commercial, and consumer radio, each with their own imperatives and limits.

To give a contemporary example of Williams' dictum, if we lift the lid on today's smart phones and electronic tablets, what do we find? Click wheels, multi-touch screens, global positioning systems, lithium-ion batteries, signal compression, hyper-text markup language, liquid-crystal displays, Siri, cellular technology, and microprocessors—the physical stuff of e-politics. Did these elements, so neatly combined by the corporations whose names and icons are emblazoned inside our jackets and pocketbooks, emerge from a desire to meet consumer needs? No, these donations to corporate profits came from the US Defense Advanced Research Projects Agency, the European Organization for Nuclear Research, the US Department of Energy, the CIA, the National Science Foundation, the US Navy, the US Army Research Office, the National Institutes of Health, the US Department of Defense—and research universities (Mazzucato, 2015). Then they were redisposed by business people.

So the ultimate destination of inventions and their deployment amount to a new invention, of combination, as per radio's history. In other words, innovations may not be entirely novel in technical terms, yet be quite distinctive culturally.

The finding applies to history coming from below as well as from above. The US communications ethnographer Eric Michaels, who was commissioned to detail the impact of satellite television on central-desert indigenous Australians in the mid-1980s, experienced instead an 'Aboriginal invention of television' (1986). The putatively powerless group he had been sent to chronicle was engaged in both local production and active interpretation of imported texts. In similar vein, the Indian social psychologist and public intellectual Ashis Nandy offers a famous conceit about the Indian invention of cricket as an act of spectacular reclamation. For him, cricket is 'an Indian game accidentally invented by the English.' Nandy takes the sport's arcane complexity and peculiar language as analogous to Indian philosophical abstraction (1989: 19). So what may look on the surface like signs of cultural imperialism can be thought of quite differently.

Drawing on realismo mágico, mestizaje, and these forms of appropriation, one might ask whether there is a Latin American invention of the internet, and if so, whether it indexes dominant political-economic and socio-cultural forms of life. My answer is that we don't really know for certain, so vast is the empirical void in ethnographic and quantitative terms, but that the magic we encounter is not that of Latin American literature and art so much as capitalist ideology.

And the magic promised to the world by advocates of the internet and its associated technologies is certainly intoxicating. The International Telecommunication Union predicts that the Earth's 6.5 billion residents will be connected by the close of 2016, enabling everyone to 'access information, create information, use information and share information.' This development may even 'take the world out of financial crisis,' thanks to its dynamizing effect on developing markets (Hibberd, 2009).

Bourgeois economists argue against state participation in development, maintaining that cell phones have streamlined markets in the Global South, enriching individuals in zones where banking and economic information are scarce, thanks to the provision of market data connecting buyers and sellers on mobile screens in ways that facilitate perfect competition. Their claims include 'the complete elimination of waste' and massive reductions of poverty and corruption (Jensen, 2007). In similar vein, the Organization for Economic Co-operation and Development says these technologies can play a pivotal role in developing service-based, low-polluting economies in the Global South through energy efficiency, adaptation to climate change, mitigation of diminished biodiversity, and reduced pollution (Houghton, 2009).

Facebook features "Peace on Facebook" and claims the capacity to 'decrease world conflict' through intercultural communication, while Twitter modestly announces itself as 'a triumph of humanity' ("A Cyber-House" 2010: 61). Machinery, rather than political-economic activity, is the guiding light. Even the United Nations Conference on Trade and Development, long a key site for alternative theories and representations of development, inspired by radical Latin American economists, has joined the chorus (2012).

In short, the internet is predicted to obliterate geography, sovereignty, and hierarchy in an alchemy of truth and beauty. Corporate and governmental hegemons are supposedly undermined by innovative creation and distribution, while the economy glides gently into an ever greener post-industrialism. This utopianism has dovetailed with a comprehensive turn in research away from unequal infrastructural and cultural exchange and towards an extended dalliance with communications technologies' supposedly innate and inexorable capacity to endow their users with transcendence (Ogan et al., 2009).

This prettiest of pictures epitomizes technological determinism as a route to development. Once, a green revolution and dam building would deliver Nirvana. Now, smart phones can do so. Same discourse, different object.

Some harsh realities are required to disturb these platitudes. The internet is a viscerally, dangerously material medium, as the people who make and recycle its machinery can attest to—many of them in Mexico and Brazil, and many suffering from horrendous occupational health-and-safety maladies and injuries, environmental despoliation, and assorted harms linked to this supposedly ineffable good, while carbon emissions from data centers (the metaphorically natural and benign 'cloud') are skyrocketing worldwide (Miller, 2013 and 2015).

And users? Latin America has a population of around six hundred million people. Approximately half have encountered the internet, with growth of over 1700% between 2000 and 2015. That puts the region just ahead of the Arab world and the global average, and well beyond the percentage of people who have experienced connection in Asia or Africa (http://www.internetworldstats.com/stats10.htm; http://www.internetworldstats.com/stats.htm).

Such numbers can be misleading: being on line at some point is entirely different from enjoying broadband on a daily basis, and there is dramatic variation across nations within the region. Mexico, the biggest and most influential Spanish-speaking country, boasts 45 million internet users, or 38% of the population. Chile leads the region with 61%. Just 27% of Paraguayans and 20% of Salvadorans and Hondurans have access (Alvarez, 2014).

This unevenness is closely tied to pricing. In 2011, the cost of broadband in the Global South was 40.3% of average individual Gross National Income (GNI). Across the Global North, by comparison, the price was less than 5% of GNI per capita (International Telecommunication Union 2012: 4). There are similarly glaring disparities within Latin America. One megabit a second in Mexico costs US\$9, or one per cent of average monthly income; in Bolivia, it is US\$63, or 31%. Access is also structured unequally in terms of race, occupation, and region. Indigenous people represent a third of rural workers in Latin America. In some countries, over half of them

are essentially disconnected. The digital divide between indigenous people contrasted with the population as a whole in Mexico is 0.3, in Panama 0.7, and Venezuela 0.6 (Bianchi, 2015).

It is often claimed that the internet presents opportunities for civic dialog that correlate strongly with peaceful parts of the region, as opposed to areas characterized by violent conflict (Calderón, 2013); but the evidence is sparse. And the World Bank's Socio-Economic Database for Latin America and the Caribbean over the last five years shows no correlation between the spread of internet use and declining inequality in the region http://sedlac.econo.unlp.edu.ar/eng/.

And yet... for all that I doubt the utopic cybertarianism preached by technological determinists/anti-Marxists, something new and vibrant can be detected, as per the hopes and dreams of all new communications technologies and realismo mágico. Consider the capsule story as follows.

Mexico's Yo Soy 132 may be the most vibrant and unexpected student movement in years. Gael García Bernal calls it the highlight of the country's 2012 Presidential elections. On the heels of mass student uprisings against neoliberal policies in Chile and Colombia over the previous three years, Yo Soy 132 captured the world's imagination (Miller, 2012).

During the campaign, the frontrunner and eventual winner, Enrique Peña Nieto, was shouted down while speaking at the Universidad Iberoamericana because the crowd objected to his authoritarian past as a state governor. Peña Nieto left in a rush. His aides claimed the hecklers were not students, but agitators paid by a leftist opponent to disrupt proceedings. The bourgeois media reported this claim as fact and declared the visit a triumph. So what did the allegedly faux students do? In best new-media fashion, 131 of them appeared on YouTube, brandishing student IDs and denying they had been paid or encouraged to protest (https://www.youtube.com/ watch?v=t6LgxA-7FiM). Peña Nieto's apparatchiks, and leading journalists, looked like amateurs.

Anyone moved to participate by the example of the 131 became the next person in an imaginary line of activists; hence the Twitter hash tag #yosoy132 [I'm number 132] (Miller, 2012). It's like that moment in Stanley Kubrick's Spartacus (1960) when the slaves are asked to identify the leader of their revolt. Each one replies, in their best central-casting accents, 'I'm Spartacus.'

Students from 119 Mexican universities, both private and public, joined the campaign, along with artists, professors, and journalists. So did survivors of the Tlatelolco massacre, when protesters were mown down by the military just before the 1968 Olympics. Yo Soy 132's rallies in Mexico City attracted tens of thousands of people (Miller, 2012).

The context to this sudden eruption of feeling had been a prevailing resignation about the seemingly inevitable victory of Peña Nieto's party, which had ruled with an iron fist for seventy years until 2000. It was corrupt, but familiar, and set to return to office. Hence the popular electoral option, voto nulo: people spoil ballot papers to indicate their disenchantment. They thought nothing could stop the Peña Nieto juggernaut in a nation exhausted by a ruinous war on drugs that had taken over 60,000 lives in a dozen turbulent years of militarism and gangsterism, underpinned by US armaments, public money, and drug lust. Violence is ordinary in Mexico, where the state is simultaneously weak and vicious (Miller, 2012). Student activism had been minimal for over a decade. Yet here was a new, young group, multicultural, demotic, democratic, populist, popular, anti-sectarian—and digital.

Peña Nieto's party had been paying millions of dollars over the years to Televisa, Mexico's dominant TV network, in return for favorable coverage and criticism of its opponents. Televisa and TV Azteca control 95% of the nation's television, the principal source of most people's political knowledge. Less than a tenth of the electorate uses the internet for this purpose (Sánchez Gudiño, 2014).

In protest against a media oligopoly that dominates political life, Yo Soy 132 invited the Presidential candidates to an online studio tussle, eluding the often-debased world of Mexican public-affairs television. Only Peña Nieto declined. He said the organisers were biased and the

format flawed: the moderators—a journalist, an academic, and a graduate student—could interrupt candidates who went over time or off topic. The demand to watch was so great that servers collapsed (Miller, 2012).

There are several lessons to be learnt here. One is that crucial connections exist between capital 'P' politics and social movements. A second is that while the digital world is both its own space of action and agency and linked to other worlds, it is not a revolution in and of itself. The favorite duly won the Presidential plebiscite, regardless of street marches or internet noise. And a third is that the private infrastructure of the web didn't hold up.

Technological determinism is as venerable as it is misguided, as utopic as it is dystopic, as certain as no competent account of the complexities of Latin America could ever be. But Yo Soy 132 took the reality of their own number and amplified it symbolically to highlight human rights and ethics, countering generations of brutality and corruption. They did so with the spirit and imagination of realismo mágico and the inclusiveness of mestizaje. Perhaps they were, indeed, embarked on a Latin American invention of the internet.

The authors gathered together here, from Mexico, Chile, Colombia, Ecuador, and Spain, do us a great service in their theoretical and empirical efforts to understand that possibility. Rosalía Winocur explores the reading practices of Mexican college students, as per those who formed Yo Soy 132. Jorge Saavedra Utman examines student uprisings in Chile from the year before. Daniel Barredo Ibáñez, Carlos Arcila, Jesús Arroyave, and Roxana Silva investigate social networks and electoral participation in Ecuador. And Aimée Vega Montiel explains the gendered nature of media technologies across the region. Their methods vary, from ethnographic and textual to quantitative and speculative—a testimony to the quality and endeavor of scholarship in the region.

REFERENCES

Bianchi, M. (2015, June 24). Digital Age Inequality in Latin America. *Democracia Abierta*. Retrieved from https://www.opendemocracy.net/democraciaabierta/mat%C3%ADas-bianchi/digital-age-inequality-in-latin-america

Calderón, F. (2013). Understanding Social Conflict in Latin America. Brief Report PAPER-UNDP. United Nations Development Program. Retrieved from http://www.undp.org/content/dam/undp/library/crisis%20 prevention/Understanding%20Social%20Conflict%20in%20Latin%20America%202013%20ENG.pdf

Douglas, S. J. (1987). *Inventing American Broadcasting 1899-1922*. Baltimore: The Johns Hopkins University Press.

Gamio, G.Á. (2013, July 14). Malos vecinos. *La Jornada*. Retrieved from http://www.jornada.unam. mx/2013/07/14/opinion/030a1cap

Gudiño, H.S. (2014). Movimiento juvenil YoSoy132: "El Cisne Negro Mexicano" frente a los monopolios mediáticos. Ação Midiática, 8. Retrieved from http://ojs.c3sl.ufpr.br/ojs/index.php/acaomidiatica/article/view/39134

Hibberd, M. (2009, September 15). Public Private Partnership. Telecoms.com. Retrieved from http://www.telecoms.com/14505/public-private-partnership/

Houghton, J. (2009). ICT and the Environment in Developing Countries: Opportunities and Developments. Paper prepared for the Organization for Economic Cooperation and Development. Retrieved from http://www.oecd.org/ict/4d/44005687.pdf

International Telecommunication Union. (2012). *Measuring the Information Society: Executive Summary*. Geneva: International Telecommunication Union.

Jensen, R. (2007). The Digital Provide: Information Technology, Market Performance, and Welfare in the South Indian Fisheries Sector. The Quarterly Journal of Economics, 122(3), 879-924. doi:10.1162/ gjec.122.3.879

Johnson, L. (1988). The Unseen Voice: A Cultural Study of Early Australian Radio. London: Routledge.

Maira, L. (2002). El Amarre Institucional del General Pinochet y las Restricciones de la Transición Chilena. In J. L. Martín del Campo & A. Camou (Eds.), Globalización, Identidad y Democracia: México y América Latina (pp. 82-110). Mexico: Siglo Veintiuno Editores.

Mazzucato, M. (2015). The Entrepreneurial State: Debunking Public vs. Private Sector Myths (rev. ed.). New York: Public Affairs.

Michaels, E. (1986). The Aboriginal Invention of Television in Central Australia 1982-1986. Canberra: Australian Institute of Aboriginal Studies.

Miller, T. (2012, July 4). Activists Get Media-Savvy. The Australian. Retrieved from http://www.theaustralian.com.au/higher-education/opinion/activists-get-media-savvy/story-e6frgcko-1226416123795

Miller, T. (2013). El discurso de la nueva tecnología y su impacto ambiental. In La configuración estratégica para las políticas culturales en México. Coord. Raúl Padilla López y Irma Leticia Leal Moya. Guadalajara: Editorial Universitaria.

Miller, T. (2015). Unsustainable Journalism. Digital Journalism, 3(5), 653-663.

Nandy, A. (1989). The Tao of Cricket: On Games of Destiny and the Destiny of Games. New Delhi: Viking/ Penguin.

Ogan, C. L., Bashir, M., Camaj, L., Luo, Y., Gaddie, B., Pennington, R., & Salih, M. et al. (2009). Development Communication: The State of Research in an Era of ICTs and Globalization. Gazette, 71(8), 655-670. doi:10.1177/1748048509345060

Palast, G. (2003). The Best Democracy Money Can Buy: An Investigative Reporter Exposes the Truth about Globalization, Corporate Cons, and High-Finance Fraudsters. New York: Plume.

Pérez Álvarez, M.A. (2014, May). Latin America's Digital Divide. Latinamericanscience.org. Retrieved from http://latinamericanscience.org/2014/05/latin-americas-digital-divide/

The Economist. (2009, December 3). Gently Does It. Retrieved from http://www.economist.com/ node/15019872

The Economist. (2010, September 4). A Cyber-House Divided.

United Nations Conference on Trade and Development. (2012). Information Economy Report: The Software Industry and Developing Countries. Geneva: United Nations.

Valdez, J. G. (1989). La escuela de Chicago: Operación Chile. Buenos Aires: Grupo Editorial Zeta.

Williams, R. (1989). The Politics of Modernism: Against the New Conformists (T. Pinkney, Ed.). London: Verso.