Chapter 13 – Media and Communications

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5 Abstract:

Developments in digital technologies over the last 30 years have expanded massively human beings’ capacity to communicate and connect. Media infrastructures have acquired huge complexity as a result of rapid technological change and the uneven spread of access. This is a good time to think critically about ‘connection’ and its potential contribution to social progress. We first explore key developments in media infrastructures and communication flows across the world, bringing out salient differences in the local evolution of, and inequalities in media access. Second, we examine how media – as infrastructures of connection – contribute to public knowledge and enable new types of encounter between people on various scales, while also enabling counter-movements for social
progress. Third, we examine the changing governance of media infrastructures, the issues of social justice that such infrastructures raise and the counter-movements to which they give rise. Fourth, we consider media as a specific site of struggle for social progress, arguing that measures of social progress themselves need to be expanded to take account of the human needs (such as voice) that media serve. Overall the chapter reflects on how media and communications flows and infrastructures both maintain and challenge asymmetries of power, with complex implications for social progress.

Summary

Developments in digital technologies over the last 30 years have expanded massively human beings’ capacity to communicate across time and space (section 1). Media infrastructures have simultaneously acquired huge complexity. By ‘media’ we mean technologies for the production, dissemination and reception of communication, but also the contents distributed through those technologies and the institutions associated with their production, dissemination and reception. The relations between media, communications and social progress are complex. More people can now make meaning and be connected through media, providing an important resource for new movements for justice and social progress. Meanwhile the uneven distribution of opportunities to access and use media is itself a dimension of social justice.

Media infrastructures, and media access, have spread unevenly across the world (section 2). Media’s consequences for social progress cannot be determined at a general level. The concerns about media inequality voiced in UNESCO’s MacBride Report (1980) did not generate major change (2.1). Traditional and digital media have developed according to distinctive histories across the world, with varying marketization and state control (case studies on China, Russia, Sweden, South Africa, Indonesia and Mexico: 2.2). Inequalities of access to media infrastructures (2.3) are stark, between and within regions and inside countries, with implications for the Sustainable Development Goals (SDGs). Cultural flows through media vary greatly within and between regions (2.4).

Meanwhile (2.5) people’s increasing dependence on an online infrastructure that mediates daily life increases the importance of the corporations which provide that infrastructure. This has transformed the governance of media infrastructures (section 3), with a shift from formal to informal governance and the growing importance of transnational governance institutions and practices, whereby corporations, not states, exercise predominant influence (3.2),
including through the operations of algorithms, with ambiguous implications for corporate power and individual rights, for the public sphere and for social progress (3.3).

Journalism has for centuries been a key institutional form for disseminating public knowledge, and so contributing to social progress (section 4). While digital technologies have expanded who can do journalism (see 4.5 on citizen media), other aspects of digitization have undermined the economics of public journalism (4.3), with new threats to journalists from growing political instability (4.4). Even so, there are new voices within global journalism (4.6 on TeleSUR and Al Jazeera).

The increasing networking of communications changes citizenship too, as citizens find information, develop imaginative loyalties and make practical connections beyond national borders, not only within the Global North (section 5) and with particular implications for global youth (5.2). A more ‘connected’ life is however not simply ‘better’ (see 5.3’s case study of life in a Chinese heritage village and 5.4 on the media-based oppression and resistance of precarious workers in East Asia).

Struggles for social justice through the democratization of media (section 6) have acquired new prominence, echoing previous struggles (6.1) and foregrounding the transparency and accountability of media infrastructures, and data flows in particular, (6.2), with implications for the SDGs and SPI. Concerns include net neutrality, Internet freedom, algorithms’ discriminatory operations, and the automated surveillance on which most online businesses now rely. There are implications for state and corporate power (6.4) which civil society has challenged (6.3 on India and Facebook’s Free Basics). A bold new model of Internet governance has emerged in Brazil (6.5 on Marco Civil).

Yet media remain the channel through which many struggles for social progress are pursued (section 7). An important example of innovative media use for social progress was the Zapatistas in Mexico (7.1), but social movements’ uses of media technologies have taken many forms across the world, exposing important constraints (7.2). Since old media generally do not disappear but are linked up in new ways through digital media, it is overall ecologies of media resource on which movements that struggle for social progress have drawn (7.3), with struggles against the injustices faced by disabled people being an example of the creative use of media resources (7.4).

Effective access to media is a necessary component of social justice (section 8). But media’s consequences for social progress are complicated by uneven media access, the plurality of spaces where
people connect through media, and the multiple uses of communication resources (hate speech is enabled by the Internet too). The SPI should measure the distribution of opportunities for effective media access and use, and address communication rights. Media infrastructures are a common good whose governance should be open to democratic participation. Concerns about automated surveillance and the environmental costs of digital waste must also be addressed. Our action plan and toolkit list various measures to these ends.

1. Introduction: media infrastructures and communication flows

Media’s role in social change, and potentially social progress, is often assumed, rather than fully investigated. ‘Media’ are inherently complex, in themselves and in their consequences. By ‘media’ we mean primarily technologies for the production, dissemination and reception of communications, but (in accordance with the common usage of the word ‘media’ and its equivalents in many languages) we include not just technologies, but also contents distributed through those technologies and the institutions associated with their production, dissemination and reception. The consequences of media can be approached from many angles. Our main emphasis will be on media as providers of content and infrastructures of connection, since these are media’s most important aspects for social progress.

1.1 Media as infrastructures of connection

Developments in media technologies over the past three decades have expanded massively the capacity of human beings and automated systems to create, use, disseminate and store information and content of all types across time and space. This has happened through the emergence of the Internet, the digitization of previously analogue content, and the development of new platforms and devices. Changes have come so fast that it is easy to forget the much longer history of media’s role in the formation of modern societies, polities and economies. In this chapter we seek to recognize that longer history, while also reflecting upon the dramatic nature of media’s transformations over the past three decades.

Media inherently involve the production, sharing and interpretation of meanings, and so media processes are always contestable and open to further interpretation. Yet media remain at the same time
infrastructure: networks of interdependencies that enable social, political and economic action, but also encode both cultural and technological constraints. This double role of media, as both meaning and infrastructure (Sewell 2005; Boczkowski and Siles 2014), requires investigating both media cultures – what users and audiences do with the media, their ‘media-related practices’ (Couldry 2012) – and media affordances: how media infrastructures shape the range of possible uses available to everyday users and audiences (SPI ‘Access to information and communication’).

1.2 Media as enablers of increasing cultural complexity

Media infrastructures have acquired a particular complexity and reach in the past three decades due to the global but uneven spread of the Internet and, more recently, social media platforms. Globalization has distributed flows of meaning more transnationally than before. Mundane exposure to media images and messages that flow from other parts of the world encourages people to become more reflexively open to the meanings produced in other places. This has generated unprecedented cross-border connection, dialogue and solidarity.

It is important however to remember that the basic patterns underlying contemporary media flows have much earlier origins. From the birth of the press through the development of postal and telephone networks and then radio and television networks, media flows and infrastructures have been crucial to successive modern forms of citizenship, providing information about governments and markets, connecting national populations and economies, and providing forums for citizen practice. Media flows and infrastructures also have played central roles in projects of political and economic domination, providing the information necessary to govern empires, manage enterprises, and control populations.

Historically mass communications (the circulation of the same message across whole territories) have been sharply distinct from interpersonal communications (people sending messages to each other across a network). A distinctive feature of 21st century media in all regions is the increasing convergence of mass communications and interpersonal communications into a multidirectional flow of content. Media’s spread across the world has however been uneven, as section 2 explains.

Despite increasing convergence of platforms for media delivery, the proliferation of media flows and infrastructures has produced cultural complexity and increased the possibilities for cultural contestation. While the late Benedict Anderson (1991) famously argued that mediated mass rituals enable national imagined
communities, cross-border media flows also make cultural complexity (Hannerz 1992; Iwabuchi 2002) more salient. Imagined communities involving marginalized people, diasporic communities, political activists and those who share socio-cultural concerns, sensitivities and imaginations now proliferate within and across national borders. Digital media have also enabled more people to become active producers and disseminators of images and meanings. This expanded productivity of meaning through media has itself become a practical precondition for new movements for social justice and social progress.

1.3 The social justice issues raised by media and communications

Through media, individuals and groups have more cultural resources, both new and archived, with which to interpret and challenge cultural forms. Such access enriches the modalities of political action and protest, with consequences for social change and social progress (SPI ‘Personal rights’, ‘Personal freedom of choice’). The political struggles against slavery in the 19th century and for the civil rights of all ethnic groups in the late 20th century were also cultural struggles that drew on the media resources of the day. But because media impact is always contestable, the consequences of media practice and media innovations for social progress cannot be determined at a general level. For example, globalization has engendered indifference and disparity of attention while at the same time promoting dialogue and solidarity. Communication, depending on its contents and directedness, can do either good or harm; we will explore these paradoxes later in the chapter. The contributions of media and communications to social progress must always be considered at more specific levels and contexts; through an analysis of the contrasting stakes that different populations – and different groups, classes and ethnicities within specific populations – have in the possibilities for connection, meaning and action that media provide. Media as infrastructures of connection are not therefore an automatic good.

Nonetheless, since connection is important to people’s possibilities of action, the uneven distribution of opportunities to access and use media is a dimension of social justice in its own right. That is why improved ‘access to information and communications technology’, including ‘universal affordable access to the Internet’ by 2020, is a Sustainable Development Goal (SDG 9.c). This dimension of social justice has two fundamental aspects. First, media are a key resource that enables ‘reality’ – the reality of particular social and political territories – to be framed one way rather than another; as a result, media, through their operations, can perpetrate specific ‘injustices [in] framing’ (Fraser 2005: 79) the social world. Second, because media have the symbolic power to construct general realities, media
institutions in themselves are a resource whose long-term
distribution can be unjust. Some battles for social progress contest
particular media representations of the world; others challenge
media institutions’ general control over symbolic power. In still other
cases, media provide a forum for challenging injustices unconnected
with media.

The relations between media, communications and social progress
are therefore inherently complex. Measures of social progress (such
as the existing Social Progress Index) require considerable
adjustment if they are to fully take account of media’s contribution to
social progress: measures of technological access alone are
insufficient. Nor (see Section 2) is there a common pattern to how
media institutions ‘work’ in societies across the world. Even so, media
and communications have important potential to contribute to
particular struggles for social justice.

1.4 Media, communications and the longer global struggle for
media reform

Now is not the first time that the implications of media flows and
infrastructures for social progress have been considered on a global
scale. Such questions were central to the MacBride Report prepared
for UNESCO in 1980 (Many Voices, One World), which followed two
decades of contested debate about ‘development’. The report
proposed a New World Information and Communication Order
(‘NWICO’) and challenged the assumption that a global media
infrastructure dominated by ‘the West’ was good for democracy,
social order and human rights. But the MacBride Report’s proposals
were not implemented, and a recent attempt to revive their broad
agenda (the World Summit on the Information Society in 2003) has
also achieved only limited success.[4] Meanwhile, the consequences
of media for social progress continue to broaden, and new media
infrastructures – for example, social media platforms and the vast
new infrastructure of data collection and data processing on which
they rely – pose increasingly urgent questions for social life and
democratic practice.

2. Media industries from print to the Internet

This section introduces the diversity and unevenness of media
infrastructures, media access, and media’s cultural dynamics across
the world.
2.1 The interrupted history of ‘media reform’

Throughout history, human communications through media have produced a tremendous diversity of meaning around the globe. But as the world entered the modern era, and as print, telegraph and electronic systems emerged and spread within the expansion of global capitalism, countless distinct languages and identities have disappeared. The establishment of commercialized media systems in countries such as the US and the UK, which distributed flows of news, entertainment, and advertising to the rest of the world, homogenized and ‘synchronized’ global communication (Mattelart 1994; Tomlinson 1991). As scholars pointed out consistently from the late 1960s, these highly concentrated flows gave rise to relationships of cultural domination and dependency (Schiller 1992; Smythe 1981).

There were however counter-movements. Anti-capitalistic, nationalistic and anti-fascist struggles led to the establishment of communist media systems in Russia, Eastern and Central Europe, and China. The rise of the nonaligned movements among the newly independent nations, originally in a Cold War context, engendered a global struggle toward a New World Information and Communication Order (NWICO) in the 1970s (MacBride and Roach 1989), which we discuss more fully in section 6.

Within today’s transnational digital capitalism, the whole spectrum of communication and cultural practice has become a site of capitalist accumulation (Schiller 1999; Jin 2015). Meanwhile communication inequality between the Global North and the Global South (identified by the NWICO movement) has become more complex and multifaceted in the midst of broader global power shifts. The rise of the Internet and the expansion of Silicon Valley-dominated social media platforms, data processing operations, and intellectual property regimes have threatened to further homogenize media communications and knowledge systems within and between nations in the Global North and Global South, while engendering new forms of communication inequality and new forms of media-based censorship and threats to public knowledge (see sections 3 and 4). However, the rapid transformations in media infrastructures have also opened new spaces for the practice of citizenship (see section 5) while a long-standing series of struggles for ‘democratization of media’ and ‘democratization through media’ (Zhao and Hackett 2005) have developed (see sections 6 and 7).

2.2 Traditional media and the Internet as infrastructures of connection
Policy discourses about media have been dominated by the histories of how 'modern' media (newspapers, radio, television, film) developed in Western Europe and North America. While scholarship on the complex regional flows of media has challenged the dominance of Western history (Schiller 1969; Boyd-Barrett 1977; Iwabuchi 2007; Sinclair and Jacka 1996), the same geographical skewing has been repeated in recent accounts of the rise of the Internet (as Chan 2013 notes). We will argue against this simplified view. No universal history of media is possible on a global scale.

We note at the outset that European and North American media systems are characterized by a plurality of print news outlets, but with varied levels of readership (high in Northern Europe, low in Southern Europe, with North America taking a middle position (Hallin and Mancini 2004)). European and North American broadcasting media have been organized differently: whether as a public service model largely modelled on British BBC, addressing audiences as citizens or following the US commercial model based on advertising, addressing audiences as consumers. In the late 1980s, the European broadcasting media landscape was re-regulated, and public service broadcasters met competition from commercial broadcasters. The last couple of decades have seen the collapse of older print business models, with advertising spending increasingly allocated to the Internet, even as Internet penetration remains uneven, for example among post-communist countries.

Other regions have had very different trajectories. Australasia and the Pacific, for example, are characterized by major cultural and linguistic diversity and a mix of social and political traditions, including some ‘traditional’ societies, and show considerable unevenness in media access. Here, there is a mixed picture with intense forms of domestic media concentration (Australia and New Zealand) and also much investment, especially in digital media, by international investors, from global social media platforms, to sovereign wealth funds and technology and mobile corporations.

South Asia’s state-owned terrestrial broadcasting networks have, since the 1990s, faced private competitors offering satellite/cable services in urban areas.[5] Governments have also started Direct-to-Home satellite TV services in India, Pakistan and Bangladesh. The expansion of cable and satellite television in India in the early 1990s, the impact of neo-liberal policies on the media market, the growth of literacy and the exponential increase in mobile phone penetration over the last decade have all contributed to India’s becoming one of the largest media markets in the world: more than 800 cable and satellite channels, close to 80,000 registered newspapers, an estimated 300 million Internet users, and one billion mobile phone subscribers. This growth has increased ordinary people’s ability
connect with each other and to access information in local languages via media. Meanwhile, competitive media access tariffs and relatively inexpensive mobiles manufactured in China, combined with offers of free satellite/cable connections and laptops, have all contributed to a changing information and communication environment in which commercial players are increasing their market share, while the government is using online and digital platforms to transform how it governs (see section 6.4).

In Northeast Asia, pro-IT policies, for example, by the South Korean government (CyberKorea 1999-2002: 21; the e-Korea Vision 2006) resulted in the digitizing of all telecommunication networks (MIC and NCA 2005). The number of mobile phone users grew rapidly from 27 million in 2000 to 36 million in 2004 out of a population of about 50 million (KCC and KISA 2010), and today high-speed mobile services provide seamless multimedia services throughout the country (NIA 2010). In the early 2000s, Korean mobile handsets and backup system comprised almost 20-30% of the global market, and exports of mobile handsets about 10% of total national exports (NIA 2007). The concentrated ownership of the Chaebols – Korean-style family-owned multinationals such as Samsung and LG – characterized the equipment market for Internet connection, with ADSL hardware and modem production also dominated by LG Electronics and Samsung. Governmental IT policy initiatives privileged the Chaebols and persuaded citizens to join a Korean-style ‘information society’, with IT-related consumption (at 5.4% of household spending) reaching rates almost double that of Japan (3.1%) and triple that of the US (1.6%) (Kang 2009).

Along a very different path, media systems in African countries have been shaped by a common history of colonialism, struggles for independence and postcolonial conflict. The origins of Africa’s traditional media (such as newspapers) are linked to the colonial state, and in most cases broadcasting was introduced by the colonial state as an ideological instrument (Karikari 2007:13). At independence, the newspaper industry in Africa was controlled largely by foreign capital, but rapidly became nationalized and state-controlled. Recently wireless broadband and mobile Internet have driven the rapid growth of the Internet across Africa, although with major disparities between different countries. South Africa and Nigeria lead the way in terms of number of Internet subscriptions, while countries such as Kenya, Sudan and Zimbabwe have seen strong increases in penetration rates in recent years (Nyerenda-Jere and Biru 2015).

By contrast, Latin America tried to block privatization and externally-driven media concentration during the 1970s and 1980s, but rates of media privatization and concentration caught up with
the rest of the world in the 1990s, with much de-regulation in the past two decades. The consequences have been varied: in 2005 the regional television network TeleSUR (see section 4) was established, sponsored by left-leaning administrations in Venezuela, Argentina, Bolivia, Cuba, Nicaragua, and Uruguay. Mobile phone industries and the Internet have rapidly penetrated the Latin American landscape since 2005 but with great diversity. Brazil has been the site of great media concentration (with decades-long dominance of TV Globo), but also of a major challenge to Western dominance of Internet architecture and governance (the Marco Civil initiative: see section 6).

In the Arab region, media production, infrastructure development, and influence over content are concentrated in the Gulf petro-monarchies. The Arab Satellite Organization has, since the late 1960s, been dominated by Saudi Arabia (Egypt is the only other country in the region that developed a satellite infrastructure). The explosion of media outlets in the past two decades is concentrated in the Gulf, in particular Abu Dhabi and Dubai in the United Arab Emirates and Doha in Qatar. This imbalance has recently been exacerbated by a deep financial crisis hitting the media sector throughout the region. From the mid-1990s to the onset of the Arab uprisings, Saudi-Qatari rivalry generated competition between Qatari owned Al-Jazeera and Saudi owned Al-Arabiya, which differed sharply in their editorial and ideological orientations. Although Al-Jazeera is widely seen as challenging Western dominance of news agendas, since the Arab uprisings, it has seen major editorial conflicts and the emergence of a rival, Al-Mayadeen, based in Beirut (on Al-Jazeera, see Section 4).

We see already from these examples varying relations between media, state, market, and wider society – and geopolitical forces played out through those relations – which rule out a universal narrative of ‘media and social progress’ across the world. In what follows we present a series of case studies from different geopolitical regions of the world to underscore not only media’s diversity at a national level, but also how variously media and communication systems intersect to generate resources for social progress.

**Country case study one: China/Russia**

Media in Russia and China today trace their respective historical origins to 20th century Soviet Union and China state-controlled non-commercial media systems, whose organization had intellectual roots in Marxist-Leninist critiques of capitalist and imperialist control of the printing press in the West. Both systems share the legacy of what today would be understood as social movement media, but they were also internally complex, contradictory, and laden with nationalistic and sectorial struggles. In fact, the Chinese
system had distinctive elements from the Soviet model and by the early 1960s, the Soviet and Chinese media systems were in serious ideological conflict. By the late 1960s, the Chinese media system was destabilized in the onset of the Cultural Revolution. Nevertheless, these historical systems pursued communist visions of modernity and social progress through ideological mobilization and cultural enfranchisement, and, as such, provided many Third World post-colonial states with alternative models for media organization from those in the West while also providing inspiration for social struggles in the West, including US civil rights struggles (Dubziak 2000; Frazier 2015). However, bureaucratic ossification, and other forms of political, social and cultural repression, as well as the influence of Western media, contributed to the transformations of China’s and Russia’s media systems from the early 1980s.

The collapse of the Soviet Union left Russia with a television-centered non-commercial media system. Liberalization, fractionalization of the post-communist political elite, and economic difficulties led to privatization of state TV channels in the mid-1990s. Newly founded private television channels emerged as the economic situation improved, bringing more diversity into the media landscape. However, the early years of the 21st century have seen a gradual re-nationalization of most leading TV channels, outside the entertainment sector. The Russian government inherited from its Soviet predecessor direct control over transmission networks and appointment of the top television management. While the 1990s saw media wars between different television channels on behalf of various political groups, the 2000s were marked by emergence of an identical pro-Kremlin picture on most TV channels. Social and media development is, however, very uneven in different Russian provinces, varying from near subsistence farmers (with access to just 2-3 analogue TV channels and no Internet) to highly networked and cosmopolitan major cities. The government’s television-based policy of media control is more effective in poorer and less connected regions. While the authorities have allowed a few oppositional media outlets (TV Dojd’ [Rain] on the Internet; RBC [RosBusinessConsulting] on cable and satellite; Ekho Moskvy [Echo of Moscow] on the radio), these channels have very little influence on public opinion. On a global scale, given the denial for two decades to Russian television of broadcasting frequencies in most post-Soviet countries, the government launched Russia Today as a news provider which is rapidly emerging as a major transnational satellite channel.

Meanwhile, and against the trend of most other Russian industries, the Russian Internet industry has been very successful. Only China has rivaled Russia in building its own prominent Internet industry, but it has done so through the defensive Chinese firewall. Russia is the only country where local Internet businesses have beaten global
giants without any protective barriers, with Yandex search engine more popular in Russia than Google, while Vkontakte and Odnoklassniki social networking sites are attracting much larger local audiences than Facebook. Nevertheless, the Russian government is facing a challenging choice with regard Internet management. It has been eager to make the Internet a 'locomotive' for the rest of the Russian economy, but this risk weakens disrupting the hegemonic vision promoted by the government’s continued control of Russian television, since government control of the Internet is weaker. Attempts to increase Internet control through pro-government ownership of Russian social media sites such as LiveJournal and VKontakte might drive a key segment of the news reading Internet audience to foreign competitors such as Facebook. The Russian government has developed three main tactics: gaining ownership over online media; producing its own 'user generated content'; and blocking websites. The result has been a dramatic polarization of Russian audiences between a loyal majority and a critical minority both online and offline. This policy coupled with state support of Internet-based creativity, has encouraged the Russian IT sector to move away from politically sensitive issues.

China's post-1980 media system has developed very differently from the Russian system. China's media system retains its overall Leninist structure and core organizational principles. As part of post-Mao China's economic growth and rapid industrial expansion, China's print and broadcasting media industries are larger, more highly developed, and more tightly integrated and centrally controlled than that of Russia's. By mid-2015, China had over 2,000 newspaper titles, nearly 10,000 periodicals, more than 300 television stations with nearly 3,000 channels, with an audience reach of 1.35 billion. However, following nearly four decades of state-directed commercialization, market consolidation, global integration, and digital convergence, China's media also bear the hallmarks of market-driven media systems in other parts of the world.

At the core of China's media and communications infrastructure are state-controlled media and communications conglomerations organized at national and provincial levels, including the Xinhua News Agency, the People's Daily Group, CCTV, China National Radio and China Radio International, and state-owned telecommunication providers such as China Mobile, China Telecom and China Unicom. Regional media conglomerates such as the Shanghai Media and Entertainment Group, the Guangdong Nanfang Media Group and Hunan Satellite Television have also been highly influential in spearheading institutional reform, operational innovations, and content diversification. While state control, political direction and censorship remain an enduring issue for China’s media professional
strata, some outlets such as CCTV’s well-known prime time investigative show *Focus Interviews* have played a significant role in spearheading social reforms.

Unlike in Russia, since the late 1990s, the Chinese state has systematically aimed to build the size and strength of its media and communication operations. Targeted national initiatives such as the ‘connecting every village’ project have significantly improved access in China’s remote areas, making China’s media and communication infrastructure one of the most advanced in the Global South. At the same time, as part of the Chinese state’s effort to address long-standing imbalances in global communication and promote its own vision of ‘globalization’, it has systematically expanded the reach of its media and communication industries, with CCTV establishing branches in North America and Africa, and China Telecom and China Mobile expanding globally. The Chinese state’s persistent effort to control the ‘commanding heights’ of converging media and communication industries, regulating global media and communication flows, managing private and foreign capital investments, and pursuing the latest technological innovations, have had a huge impact on the system’s evolving structure and values (Hong forthcoming). Yet, the more the Chinese media system evolves, the more the Community Party of China emphasizes its Leninist founding principles.

China’s large-scale development of media and communications infrastructure does not fit with the dominant Western liberal ideological framework that treats press freedom (and ‘Internet freedom’), defined always as freedom from government control, as the precondition of social progress. Yet each framework has its own historical and geopolitical context. China was initially refused Internet connectivity by the US for reasons of US national security, which was why China’s first email was sent by a Chinese scientist to a European scientist in 1987. By the time China-based Internet firm Alibaba made a record-setting stock market debut in New York in 2014, China had established itself as the world’s largest Internet market in terms of the number of users, and in December 2015 China’s Internet population was 688 million – just over half of the national population (China Internet Network Information Center 2016).

Since the early 1990s, the Chinese state has mounted an all-out effort in pursuing information technology development, implementing various ‘golden projects’ aiming at integrating network applications with Chinese politics, economy and society. In the aftermath of the 2008 global economic crisis, the Chinese state elevated the media, communication, Internet and cultural industries as a driver of economic restructuring (Hong forthcoming).
2015, Premier Li Keqiang unveiled the Chinese state's 'Internet Plus Action Plan' to stimulate economic growth by integrating mobile Internet, cloud computing, big data and the 'Internet of things' with modern manufacturing. No other issue has received as much strategic emphasis by consecutive Chinese leaderships in the past three decades. Aiming to build China into ‘a cyber power’, the Chinese state treats access and control as ‘two wings of a bird and two wheels of an engine’ (Xinhua 2014). Meanwhile, various sectors of Chinese society have enthusiastically embraced the Internet (as less tightly controlled than the traditional media), turning it into a new terrain of discursive struggles over China’s future. These developments challenge any simplistic ‘state versus civil society’ reading of the Internet’s consequences, since both the Chinese state and Chinese society have been empowered through the Internet (Zhang and Zheng 2012; compare Sassen 2006), with outcomes significantly different from the parallel history of media in Russia.

**Country case study two: Sweden**

In contrast to government-controlled media regimes, Sweden’s media is shaped by a welfare state system (typical of Nordic countries) and characterized by a distinctive relation between media and state, market and civil society. Traditionally, Sweden has had high voter turnout, and high levels of literacy and newspaper reading, not least due to the national subsidy system for print newspapers, which have resulted in a plurality of local newspapers with high readership. Typically, the subsidy system provided for a plurality of political positions, with at least two local or regional newspapers representing two political viewpoints. Like other European countries, Sweden has had a strong public service broadcaster for radio and TV, which since the late 1980s has faced strong competition from commercial broadcasters. The communications infrastructure has been well developed, with high penetrations of landline phones, mobile phones and computers.

The development of Sweden’s news media has followed a similar pattern as in other north European countries, with weakening public service media (due to audiences migrating to commercial channels), and a drift within the press from a focus on opinion formation to a closer tracking of market demand (Weibull 2016). Newspapers are today facing dramatic declines in readership, and advertising has migrated to the Internet. News consumption has also migrated from traditional press to social media such as Facebook and Twitter. This shift has challenged Sweden’s distinctive relations between media and wider society.
Since the late 1990s Sweden has witnessed a tight horizontal integration of the media sector, with companies formerly working within one media developing tie-ins or purchasing companies in other markets: Sweden's largest media house Bonnier, a book publisher in the 19th century, moved early into publishing newspapers and weekly/monthly magazines, and today owns television, cinemas, advertising and social marketing outlets. The development of 'media houses', with particular regions' media being largely controlled by local or regional media houses, has also undermined the press subsidy system, undermining political variety in spite of continued state subsidy (Nygren and Zuiderveld 2011).

The digitization of media contents in particular has changed the power dynamics within the media industries, with the telecommunications industries acquiring increased importance because of their centrality to Wi-Fi and broadband networks. This infrastructural power was highlighted in 2016, when TeliaSonera closed an exclusive deal with Facebook for free surfing through their networks, perceived as unfair competition by Swedish news publishers in print and broadcasting and contrary to the EU regulation on net neutrality (compare Section 6 on Facebook India).

Because of its well-developed infrastructure for high-speed Internet, Sweden is also known as a safe haven for Internet piracy, with The Pirate Bay party (TPB) its most prominent symbol (Larsson 2013; Andersson Schwarz 2013) acting as a focus for debates on media governance issues.

**Country case study three: South Africa**

South African media are arguably the most technologically advanced on the African continent, offering a wide range of content across print, broadcast and digital platforms. Its media landscape involves a three-tiered model of public, commercial and community media. South Africa became a democracy in 1994, with its early period post-independence from Britain (1961) better seen as the continuation of colonialism in internal form (the apartheid system) (Visser 1997). But in many ways the country's media show similarities with those elsewhere on the continent, where colonialism, the postcolonial transition, and globalization have shaped media systems.

The changes that South African public broadcasting has undergone illustrate some of these shifts. As in other African countries under military or one-party state rule, the South African Broadcasting Corporation (SABC) under apartheid acted as a state broadcaster. The Windhoek Declaration in 1991 signalled a move towards greater independence of broadcasting continent-wide, even if in some
countries like Zimbabwe there has been a deterioration in recent years (Kupe 2016). The Windhoek Declaration coincided with the period of negotiated transition in South Africa, which saw the SABC adopting a public service mandate and media freedom entrenched in the new Constitution. The SABC has however never been fully publicly funded, and is largely dependent on commercial funding (Kupe 2014:29). In recent years, the SABC has also seen the ‘push-back’ from government seen in other African countries (Kupe 2016): some argue its editorial independence has eroded under pressure from an ANC government increasingly intolerant of media criticism. Other negative signs have been the proposal of a statutory Media Appeals Tribunal which would impose harsher sanctions on offending journalists and Protection of State Information Bill which could criminalize whistleblowers, investigative journalists, and civil society activists who access information classified by the government as secret (R2K 2015).

South Africa led the way in newspaper development in Anglophone Africa, with the publication of the Cape Town Gazette in 1800 (Karikari 2007:13), and a centuries-old private commercial press. Under apartheid, mainstream newspapers either supported the regime (the Afrikaans-language press) or provided a limited critique (the English press), while an alternative, underground press engaged in a more radical critique of apartheid and faced harassment, censure and closures. Democratization largely eliminated the parallelism between language and political orientation, and most South African newspapers adopted a watchdog approach to the government and reflected a liberal, commercial consensus.

Meanwhile, as in some other African countries, South African media have been effected by global investment processes. The South African press was a major capitalist venture from its inception. For example, the South African media company Naspers has become a globalized conglomerate, while the Irish Independent group bought the largest English-language newspaper group in 1994, selling it in 2013 to the Sekunjalo consortium, in which Chinese business interests have a major stake. Widely seen as a vehicle for soft power in Africa, several state-owned Chinese media houses have established offices on the continent (Kenya as well as South Africa), including the news agency Xinhua, the newspaper China Daily, China Central Television, and China Radio International. China has also funded media and communications infrastructure around the continent (Wu 2012). The influence of the Chinese media presence and investments in African media on journalistic norms and practices has been controversial, and challenges any simple regional or Western-dominated model of media diversity.
During the transition to democracy, a particular attempt was made to strengthen the community media sector through the establishment of the Media Development and Diversity Agency (MDDA) to fund media owned and controlled by the community they serve, especially to enable more Black ownership of media (Banda 2006). Another important development has been the rise of popular tabloid newspapers which, although commercially owned, provide perspectives from the poor, mostly Black, working class rarely found in mainstream print media (Wasserman 2010). Some of the most interesting alternatives to the mainstream print media in South Africa have been online (the *Daily Maverick, The Con* and *Groundup*). Such publications have provided critical analysis and investigative reporting often surpassing the mainstream press in South Africa in diversity and depth. Despite the obstacles in terms of access and reach, digital media platforms are increasingly reshaping social relationships and public spheres in Africa (Mabweazara 2015: 2). Meanwhile, the mobile phone has had a massive impact on social, political and economic life: as a platform for Internet access, banking and money transfers, for reconstituting traditional modes of sociality (Mabweazara 2015: 2-3), and, via social media platforms, as providers of spaces for citizens to engage in political debate and mobilize for social change.

**Country case study four: Indonesia**

An important case of a diverse media system is Indonesia, the largest economy in Southeast Asia with a population of 240 million, and the fourth largest democracy in the world. It is an archipelago with approximately 6,000 inhabited islands, 300 ethnic groups, 740 languages and dialects, which faced over three decades of authoritarian rule under President Soeharto (1965 to 1998), and has since been democratizing.

The establishment of Indonesia’s modern media system owes greatly to the legacies of Soeharto’s five-year economic development plans, which centralized capital and inhabitants to Java. For decades the authoritarian state held strong control over media infrastructure and content, from the press, radio, film, satellite, to television. The media system was built to support state developmentalism, limiting civilians’ information access to information provided by the state.

During the 1960s-1980s, Indonesia had a single, state broadcasting system, Television of the Republic of Indonesia (*Televisi Republik Indonesia*—TVRI). Although designed as a network system, television infrastructure and production relied heavily on central funding and programming (Sen and Hill 2000). The state-controlled television system shifted to an open, privatized, and more liberal system in the late 1980s, as a consequence of the government’s open market and
open sky policy. These policies allowed foreign content via satellite television and cable networks (Hollander et al. 2009), which catered to the needs of the expanding urban middle class. By the early 1990s, dozens of private television stations had been founded, owned by the President’s close allies. This gave precedence to market demand over commercial news, and gradually weakened state control over information. Around the same time, the Internet came to Indonesia, providing an alternative source of information to a small elite in Java (Sen and Hill 2000; Lim 2003). Media liberalization and commercialization of information paved way for the growth of a civil society (Hollander et al. 2009; Hill and Sen 2005), which was the prelude to Indonesia’s transition towards democracy.

The authoritarian regime finally broke under the weight of the Asian economic crisis of 1997, in the face of increasing public pressure and conflicting interests within the ruling elite, starting a social transformation among an expanding middle class amid conditions of unprecedented economic growth (Basri 2012). While market demand over commercial news had helped the push for democratic transition, since the early 2000s the development of the news media in Indonesia have relied more on market responses rather than having an independent democratic agenda. Television is Indonesia’s most popular media with a penetration rate of 90%, and it continues to attract the dominant share of advertising income.

Second to television, the Internet has the highest penetration rate of 24.23% in 2012 (APJII 2012) or 12 million urban users to 28% in 2013 (APJII 2014). Nielsen (2011) estimated that 48% of mobile phone owners use their phones to access the Internet. This has caused the closing of print versions of newspapers, while digital news has seen a steady rise. Over two decades, Indonesia’s media have seen a convergence whereby established media companies, initially specialized in one form of media – print, television, or online – are expanding into other media, forming larger, multi-platform converged conglomerates (Tapsell 2015). Indonesia experienced the largest number of mergers and acquisitions in the history of its media system in 2011 (Nugroho et al. 2012), producing six large media conglomerates. There has emerged a set of interconnected relationships between politicians and media proprietors, with various political leaders owning media companies. One of the biggest media conglomerates, MNC Group, owns three terrestrial television stations, one pay television station with 60% of market share, 14 local television stations, one newspaper, one online news portal, and several franchise magazines. This has allowed media conglomerates to republish the same news content on multiple platforms. The CEO of MNC ran for vice president of Indonesia in 2014 and currently heads the political party Perindo.
Significantly, the Internet infrastructure and service provision remain dominated by state enterprises Telkom and Indosat, which caters mostly to urban users in large cities. Media markets and conglomeration are concentrated in Jakarta and Java more broadly, monetizing the activities of Internet users in large cities while excluding users in rural areas and small cities. International forces are important too: in 2015, 70% of digital advertising revenue in Indonesia (USD 560 million) went directly to Google and Facebook, rather than national companies. Consequently, media systems in Indonesia today still reflect the centralization model that was established since the 1960s, while also registering the power of global digital platforms.

**Country case study five: Mexico[9]**

The media system in Mexico is highly concentrated and deeply marketized. Its core is commercial broadcasting, owned by private corporations controlled by a handful of individuals. The power of those media corporations was built from alliances between powerful economic groups aligned with government interests that have benefited from discretionary grants, television and radio concessions, lucrative contracts for governmental advertising in print media, and ad hoc legislation (or lack of it) in favor of the sector’s economic interests.

After the Mexican Revolution (1910-1920) the country adopted a capitalist economic model and initiated a corporatization of the Mexican State. From 1929 to 2000 all presidents were members of the Partido Revolucionario Institucional (PRI). Lack of regulation and communication policies led to a concentration of media in a few families. In the early 20th century, well-established industrial families (railways, mining, and banking) invested in radio broadcasting. After WWI, US capital replaced European investments in Mexico, with large investments in the radio industry (radio stations, manufacture and sales of radio devices, records, phonographs). Today there are 1,600 radio stations, but 80% of them are owned by 13 commercial families.

In 1950 the Mexican television industry started, modeled on the US commercial system. The families who owned radio stations became, in turn, the owners of television stations, for example, the Azcárraga family which, from its original concession of Channel 2, grew through mergers to create the now better-known Televisa (Televisión Vía Satélite). From 1972 to 1993 Televisa was Mexico’s only private television company, competing with three public television channels. From its origins, Televisa had a close link with the ruling party PRI. Televisa subsequently became the most influential global producer and distributor of Spanish-language audiovisual contents, and
currently owns among others free-to-air television channels, restricted television systems (satellite and cable), a leading Spanish editorial house, radio stations, entertainment companies, soccer teams and stadiums, music recording companies, cinema distribution companies. In the early 1990s the public television channels 7 and 13 were privatized. The Salinas Pliego family (owners of departmental stores and previously radio manufacturers) bought both channels and created Televisión Azteca offering contents similar to those of Televisa and aligning itself with the government.

The early 1990s also saw the privatization of telecommunications, generating another monopoly (Telmex-Telcel) in the hands of just one individual, Carlos Slim. Slim’s monopoly started with landline telephone services (Telmex has 65% of the national market) and moved on to mobile telephony (Telcel has 65% of subscribers) and Internet services (75% of subscribers). The government justified the sale of the nation’s telephone company to a single owner with the argument that a monopoly would scale economies, lower costs, and increase the number of landlines. However, Mexico’s mobile phone and Internet service costs are actually in the middle of international rankings (ITU 2014), and, although, since the early 2000s, Internet home users have grown from 5% to 61% of the population, the digital divide between urban and rural areas has widened.

Political reforms have continuously supported deregulation and privatization, and changes in legislation have meant more power and influence for media monopolies, generating a mediocracy, where members of senate and congress have direct links with the media industry. In 2012 the PRI party regained the presidency of Mexico, with Enrique Peña Nieto elected with the full support of the media industry, mainly Televisa. In 2013 Peña Nieto promoted a historic constitutional reform in telecommunications and broadcasting with the aim to increase competition in the sector. The new legislation enabled Televisa to enter the telecommunications market by offering triple play services (cable television, landline telephone services, and Internet). Televisa now controls the market of restricted television (cable and satellite) with 60% of subscribers and in 2014 and 2015 purchased two new cable companies. The new legislation punishes Telmex by imposing strict restrictions on telephone carriers (cancellation of long distance fees; a prohibition on charging for interconnection services).

There are also positive aspects to this new legislation. While public services are still offered by private entities through concessions regimes that distinguish between commercial, public and social media (indigenous and cultural), with the latter not allowed to sell advertisements (although previously community and indigenous media were not recognized, and hence operated outside any legal
framework), telecommunications and broadcasting have now been defined as fundamental human rights and public services (compare SDG 9.c). As for telecommunications, the new legislation reserves a portion of the spectrum for social concessions, reflecting the work done by the community cellular network which had created a network of mobile phone services for indigenous communities previously denied mobile phone services by the major telecommunication companies. Civil society activism in Mexico has therefore begun slowly to correct for some of the excesses of previous marketization.

### 2.3 Unevenness of access

Alongside the differences in media infrastructure between regions are stark differences in access to media between population sectors within the same region. It is significant that basic levels of mobile phone subscriptions and Internet access are included as items in the Social Progress Index, alongside the concerns about state control of media registered in the press freedom index (compare SDG 9.c).

Access, in fact, depends on the inter-relationship between media and other closely related factors: literacy, language, and education (SDG 4). This is the central lesson from ‘digital divide’ debate and policy: that simple availability of technology is not sufficient for development or social progress. Adequate levels of media use (and the benefits for social actors’ agency that can result) require many factors: not just literacy, but training and education, democratic participation, accessibility of formats and technology for people with disabilities and other distinctive needs, diverse content in appropriate languages, freedom of expression, and the existence of community and citizen-produced media. The 2005 Tunis Agenda for The Information Society acknowledged these factors, and they have been the focus of international efforts since then (WSIS 2005). The multi-faceted nature of ‘access’ is crucial to understanding media’s integral role in achieving the Sustainable Development Goals, and pursuing broader social progress (ITU 2016) (SPI ‘Access to information and communications’).

Globally, there has been progress on access to Internet and mobile phones in the past twenty years (SPI ‘Access to information and communications’; ‘Mobile Phone Subscriptions’). Many countries which had very little access in the 1990s have by the early 2010s experienced significant growth. But what such broad indicators of ‘access’ mean on-the-ground is not well understood: much depends on what kinds of media, Internet and mobile platforms or content people can access affordably and accessibly. What kind of media access do people need as the minimum for a ‘universal’ service?
Without closer attention to these questions, today's ever more pervasive digital connectivity, and the new norms of media use it creates, only deepens digital exclusion.

To illustrate the patterning of uneven media access, we can start with regions within which there is great disparity. Asia, for instance, includes countries such as South Korea and Japan, both pioneers in digital media, as well as emerging powerhouses such as India and China. India has gone from fewer than 1% of individuals using the Internet (in 2000-2001) to 18% in 2014. China has moved quickly from 1.78% in 2000 to 49.3% in 2014. In 2014 Malaysia had 67.5% Internet users, and the Philippines 39.69%. Yet, many other Asian countries continue to have comparatively poor media infrastructure, including Bangladesh (9.6% Internet users) and Laos (14.26%).[10]

In Latin America, while the mobile phone industries have rapidly penetrated since 2005, the mobile phone landscape is not homogenous. In Chile, Argentina, Venezuela and Mexico 80-90% own a mobile phone, while in Mexico only 63%.[11] while most Latin American mobile phones are not smartphones (only 4% in Bolivia, 39% in Chile and 15% in Mexico).[12] The rapid spread of mobile phones in the region is in part explained by the lack of landlines. Latin America went straight from no phones to cellular telephony without a land-line phase. Yet, while only 33% of Bolivians use the Internet on a daily basis, as many as 74% do in Argentina (69% in Chile and 64% in Mexico).

Admittedly, in some regions and countries there is relatively little variation within populations. For example, in Scandinavia the supplement of traditional media by digital media is well advanced with very high penetration of digital mobile and personal media among all ages, and wide-spread use of social networking media (in Sweden 70% of all ages above 12 use Facebook). But this is not a typical picture.

Within countries, there are also striking disparities in access (SDG 9.c), especially in rural and remote areas, among different socio-demographics, cultural, ethnic, and racial groups, and groups with reduced or uncertain legal or citizenship status (migrants, refugees, internally displaced persons, prisoners, civilian populations in conflict zones). Many cities that appear to enjoy ‘good infrastructure’, when inspected more closely, display great differences between the media ‘have-less’ and ‘have-mores’. Other countries have seen extraordinary large-scale growth. So among China’s 688 million Internet users (2015), an absolute majority (620 million) use social media applications (typically Chinese platforms such as Weibo and Tencent’s Wechat, rather than Twitter and Facebook). Furthermore, around 90% of China’s Internet-using population access the Internet
through mobile phone, while the use of the Internet for online payments, access to online education and online medical service, has become very widespread among the middle classes.

From these variations we see that media's potential contribution to social progress cannot be understood without grasping both the *distribution* and the *differentiation* of media access, and how they shape possibilities for political and social agency.

### 2.4 Cultural flows of media within regions

Putting the complexities of media infrastructure to one side, media's *cultural forms and consequences* also vary significantly from region to region. As previously noted, at a general level Western colonial powers such as the UK, France and the US dominated global information flows during and after the colonial period. Those media culture flows were themselves unevenly shaped by the long-standing centrality of the US, with which even the UK and France could not compete. Some Western countries (such as France) developed media regulation intended to contest US cultural dominance and foster ‘national culture’.

In some non-Western regions, however, more complex flows of media culture have evolved. However, cultural globalization does not simply homogenize the world, but instead reorganizes the production of cultural diversity (Hannerz 1996). By creatively localizing and indigenizing US cultural influences, some non-Western countries such as Brazil, Mexico, Nigeria, Japan, South Korea and India have achieved high levels of media production capacity, especially in the last two decades. The media outputs of those countries circulate transnationally and are favorably received within and beyond their regions, generating important counter-flows to US dominance.

In Latin America, the predominant mainstream cultural flow is *telenovelas*, or ‘soap opera’ TV drama series, which have been exported globally. Export formats have evolved from selling program series to selling only the show’s central idea or main character internationally (Biltereyst and Meers 2000; La Pastina and Straubhaar 2005).[13] The robust production of Mexican, Brazilian, and Colombian television content has shifted what Latin Americans watch on their screens. If 1970s and 1980s generations grew up watching mainly US-produced imports, today’s Latin American audiences are exposed to the customs, life-styles, and social fabric of Latin American communities themselves. And, although Latin American media content still privileges the visibility of upper class and predominantly White groups, some content does depict the experiences of working class and non-White Latin Americans.
Additionally, free trade agreements and the growing number of migrants from Latin American countries to North America have generated new North-South media content flows; for example, since 1994, Spanish-language media has grown exponentially in the US, and Univisión (owned by Hallmark) and Telemundo (owned by Sony) are the two main Spanish-language cable television networks. Univisión benefits from an agreement with Mexico’s Televisa, including a pipeline of Spanish-language content. Other lesser players in the global field of Spanish-language media include CNN, BBC, MTV and Fox, with news and sports channels entirely in Spanish.[14] But overall the unevenness of mainstream audiences’ daily media fare has not changed much since the mid 1990s: Latin American media include mostly Latin American and US content (music, films, TV), plus a trickle of Japanese anime and European media content (mainly BBC). Flows from other regions of the world (Africa, South and Southeast Asia) are still scarce.

The impact of globalization on African media has also shifted the flows and contraflows of media content and capital. After the long dominance of ex-colonial powers, many countries have recently developed media production capacities. A most prominent example is the growth of the Nigerian film industry ‘Nollywood’, which exports to other African countries, the Nigerian diaspora and a global audience (Krings and Okome 2015; Larkin 2008). It has become the third largest global producer of feature films, next to Hollywood (US) and Bollywood (India), relying increasingly on co-production and distribution with the Ghanaian film industry. Also notable are the growing African and global footprint of the South African media giant Naspers, and significant foreign investment in African media firms, especially from China (Xinhua news agency, China Central Television (see section 2.1).

In Asia, India, Hong Kong and Japan have developed local film and TV industries and their media outputs have circulated within the region for many years. However, circulation outside the region has jumped sharply in the last two decades. The global diffusion of Bollywood films in India has become much more prominent (Kavoori and Punathambekar 2008; Gopal and Moorti 2008). In East Asia, cultural products such as manga, animation, video games and TV dramas produced in Japan have generated a regional and global media culture more systematically since the 1990s (Iwabuchi 2002). Even more notable is the so-called ‘Korean Wave’ (or Halryu, a term first coined by Chinese reporters in 1999), whereby Korean cultural products such as films, television dramas, fashion, and popular music (K-pop) have significantly penetrated other Asian markets (Chua and Iwabuchi 2008; Kim 2013) and also Europe and Latin America. The Korean Wave offers an intriguing example of how national cultural policy can be used as a form of soft power, bolstering local
production capacity and promoting the export of media culture by ‘creative industries’. South Korea’s neo-liberal yet interventionist cultural policies seek to position the Korean cultural industry as a ‘sub-empire’ of the Hollywood system in Asia. The ‘Korean Wave’ thus signifies the Korean culture industry’s ambiguous position as both a counter-flow against the Hollywood system and a sub-flow co-opted by Hollywood.

This complexity characterizes counter-flows in other regions too. The more counter-flows to American media culture advance, the more market-driven governance encompasses them. Even though relatively independent from the cultural dominance of the ‘Hollywood empire’, the rise of media culture flows in non-Western regions has given rise to new intra-regional asymmetries. American media culture maintains a pivotal presence, yet in a way that goes beyond a straightforward understanding of American cultural hegemony. Hollywood itself has striven to incorporate capital, talent and narratives from many parts of the world and develop outsourcing of post-production labor on a global scale (Miller et al. 2004). The rise of non-Western media cultures can be seen as part of a market-driven recentralization in which diverse players across the world collaborate to penetrate transnational markets, engendering a new kind of governance via marketing, co-production, distribution and copyright monopoly. Section 3 will discuss the emergence of global governance infrastructures for the regulation of information and data.

At the same time, cultural counter-flows of diverse regions and countries cultivate cross-border exchange and dialogue, with important implications for social progress. Regional circulation of diverse media cultures has brought about new kinds of cross-border connections, mutual understanding and self-reflexivity about people’s own society and culture on a larger scale than ever before. The mutual consumption of media cultures, in some regions of the world at least, has created an opportunity for mutual understanding of societies and cultures (Iwabuchi 2002; 2015). A crucial question however remains: whose voices and concerns are not included and which issues are not featured as the marketization of media culture flows advances? Section 5 considers the ambivalent consequences of the rise of non-Western media culture flows for the active global citizenship that such media connections may foster.

2.5 Digital disruptions and transformations (technological, geopolitical)

Even before 2005, the global media landscape was highly uneven, and its implications for social progress correspondingly complex. Some key developments since the middle of the century’s first
decade (when Facebook, the world’s current most successful social media platform, was launched) have increased this complexity considerably. Of course there is not today ‘one’ Internet – much of the Internet is inaccessible in language to large sections of the world’s population – but some key patterns are clear.

The key technological development has been the shift from so-called ‘web 1.0’ – a system of media infrastructure based on discrete websites, connected by hypertext links, with access obtained from desktop or laptop computers – to ‘web 2.0’ characterized by increasing use of interactive online platforms, in particular social media platforms. Today, both platforms and websites are increasingly accessed from phones and other mobile devices, and the applications (or ‘apps’) embedded within them. This change from a ‘read only’ to a ‘read/write’ interface has intensified Internet use and its embedding in daily life, heightening institutional attention to how audiences can be reached online and stimulating the rise of a vast commercial infrastructure of online data collection and data processing. This shift in media as ‘infrastructure’ has involved also a significant cultural shift, as patterns of use have changed (a shift in media as ‘meaning’). This double shift has multiple consequences.

First, the increasing dependence in daily life on a complex, distributed online infrastructure for mediating daily life changes the power dynamics within the media industries, leading to the increased importance of the telecommunications industries which provide infrastructures of connection (Wi-Fi and broadband networks). Market convergence means that telecommunications providers have the power of control ‘in the last instance’ over the communication systems on which all content distribution depends (Bolin 2011). Consider the vast scale of some new media infrastructure companies: Google’s annual revenue in 2015 was 74.5 billion USD, Facebook’s 17.9 billion USD, and Amazon’s 107 billion USD.[15]

But the global balance is no longer one of simple US dominance. By the end of 2014, of the top 10 Internet companies in the world, six are US and four are Chinese. Indeed, the growing power of China’s Internet market, with its distinctive Chinese platforms (Sina’s Weibo, Tencent’s Wechat) is such that Shi (2015) has argued that cyberspace now has two camps, GAFA (Google, Amazon, Facebook and Apple) and BATJ (Baidu, Alibaba, Tencent, Jingdong). As a result, ‘the material foundation for US-China co-governance of the Internet is in shape’ (Shi 2015). This observation was made at the 2015 World Internet Conference Wuzhen Summit at which the Chinese state’s effort promoted its goal of shaping the future of global Internet governance, a strategy with profound implications not only for China, but also for global communication politics.
Second, such developing power concentrations have implications for evermore sectors of everyday life from government to health (SDG 3). Take also education (itself an important focus of the Sustainable Development Goals [SDG 4]): concerns are developing regarding school learning materials increasingly provided not by the state but by commercial media companies such as Apple and Google through initiatives such as Apple Education and Google for Education. Weaker welfare and public service systems are creating opportunities for market advances in areas such as education that were not previously much commercially exploited (Forsman 2014; Selwyn 2014).

Third, none of these developments would be possible without a huge double development in media’s ‘infrastructures of connection’: the vast infrastructure of data collection and processing which drives the activities of search engines and all sorts of digital platforms and, underpinning them, the default infrastructure of ‘cloud computing’ (Mosco 2014) which provides the capacity necessary for such data collection and processing, and for the general expansion of computer-based information processing in everyday life. Both developments expand what we mean by ‘media’ and create new challenges for governance (see section 3).

At the same time, deep inequalities of access remain, as noted in section 2.2. The African continent, for example, remains characterized by widespread poverty, huge socio-economic inequalities, and highly differentiated patterns of media access and use, with the central parts of the continent most deprived (Porter and Stern 2015: 17, 50). Such inequalities have important implications for citizens’ ability to participate in any mediated public sphere (see sections 4 and 5).

We cannot therefore say that the ‘whole world’ is being transformed by media at the same time and in the same way. Yet the overall direction of these large-scale transformations is changing how we think about media’s potential contribution to social progress.

3. The governance of media infrastructures

As we showed in Section 2, the global media landscape is complex and uneven, reflecting many diverse histories. The often opaque structures of media governance that have emerged in the digital era
are another factor that complicates media and communications' contribution to social progress.

3.1 The evolving relations between media infrastructures and government regulation of information flows

Governments worldwide have expressed interests in regulating media infrastructures. In some cases, such interests take the form of laws directly prescribing the conditions of information access and exchange or the technical capabilities of media infrastructures. In others, legal incentives for the takedown of certain kinds of information produce regulatory effects.

Legal regimes in many countries protect freedom of expression, but all governments prohibit the publication and exchange of certain types of information. Additionally, ‘[m]any democracies now deploy national-level filtering systems through which all ISPs (or in some cases most major ones) are compelled to block designated lists of websites to address public concerns about … illegal activities conducted on the Internet’ (MacKinnon 2012: 95). Typical subjects of legal prohibitions include child pornography, speech offering material assistance to terrorists, speech that infringes intellectual property rights, and speech ruled to be defamatory. Additionally, some countries prohibit the dissemination of hate speech, and many set limits on the collection, dissemination, and processing of personal information, although data protection regimes vary considerably from country to country. There are good reasons for all these prohibitions, but each involves governments in decisions about what is or is not prohibited, and therefore raises the possibility of overbroad interpretation leading to censorship of other, nominally protected expression. Such decisions necessarily have implications for the quality of social life and the possibilities for social progress.

In some situations, legal rules incentivize media infrastructure companies to create notice-and-takedown mechanisms for removal of prohibited information. To create an additional, more consistent set of incentives for removal, many countries have enacted legislation that provides safe harbour from copyright infringement liability if procedures are followed for removal of unauthorized copyright-protected materials from publicly available websites and/or exclusion of such materials from search results. The first copyright safe harbour legislation was enacted by the United States as part of the Digital Millennium Copyright Act of 1998.[16] Similar provisions have been enacted in many other countries, often following inclusion of such obligations in bilateral or multilateral free trade agreements negotiated by the United States (Fink and Reichenmiller 2006; see also Valdes and McCann 2014). More recently, European legal instruments regarding privacy and data
protection have been interpreted to afford enforceable rights to
deindexing and erasure of information made available online.[17]
Those rulings have prompted some online information providers,
including most notably Google, to develop notice-and-takedown
mechanisms patterned after the copyright model.[18] Such legal
structures play important roles in shaping the ‘rules of the game’
regarding information flow in daily life.

Meanwhile, governments in some regions have invested heavily in
the development of technologies for regulating citizens’
informational activities more directly and on highly granular levels.
South Korea, for example, for several years enforced a ‘real-name
system’ for Internet access that prevented anonymous expression
online. In 2012, the Constitutional Court of Korea struck down the
real-name requirements, ruling that they violated Internet users’
freedom of speech.[19] Automated content filtering of information
supplied via media infrastructures is pervasive. Such filtering often is
justified by an asserted need to protect children from pornographic
and illegal material; in operation, however, it seeks to police and deny
access to political as well as pornographic content (MacKinnon
2012).

On another level, not just governments but corporations (from
Europe, North America, and Asia) are heavily involved in the building
of media infrastructures through the export of technologies to the
Global South. Such infrastructures often include built-in capacities
for censorship and surveillance. Chinese companies export
technologies similar to those developed to Communist Party
specifications for domestic use (MacKinnon 2012). When the
Zimbabwean government jammed shortwave broadcasts in the run-
up to the 2005 elections, it was believed to have done so by using
jamming equipment provided by China (Wu 2012). But North
American and European companies such as Cisco also export
information technologies built to customer specification to enable
informational control, and global platform companies have acceded
to demands for censorship to gain access to local markets (Wu 2012;
Stirland 2008).

3.2 The shift from formal to informal governance and the rise of
new global/transnational governance institutions

Direct government mandates, prohibitions, and procurements are
the most obvious mechanisms through which media infrastructures
are governed, but other mechanisms are equally important. The
emergence of a networked information economy and the
globalization of mediated information flows have catalyzed two
significant shifts in the nature and quality of governance. The first is a
shift away from formal government regulation toward informal and
often highly corporatized governance mechanisms. The second is a shift away from state-based governance (and global governance institutions organized around state membership) toward transnational governance institutions more directly responsive to the asserted needs of private entities, often also corporations, that are those institutions’ ‘stakeholders’. Both trends, if they continue unabated, may result in a serious imbalance inconsistent with SDG 16, which calls for the building of ‘effective, accountable and inclusive institutions at all levels’.

Particularly in the Global North but also the Global South, the information networks and communication protocols that underlie media infrastructures are designed and operated by private, corporate entities. Direct technical authority over networks and protocols gives those entities an authority that is inherently regulatory. Global platform companies such as Google, Twitter, Facebook, Microsoft, and Apple, each of which occupies a dominant market position globally, enjoy correspondingly stronger and more pervasive regulatory power.

The regulatory effects of technology take a variety of forms and produce a variety of effects, some beneficial and others less so. For example, security measures designed to prevent unauthorized access to networks, servers, and accounts protect private, personal information and important corporate and government information from prying eyes and malicious actors. Flawed or poorly implemented security measures can introduce vulnerabilities into the network, exposing individuals to identity theft, surveillance, censorship, and political persecution. Likewise, flawed or poorly implemented security measures can expose corporations, governments, and key power and communications infrastructures to espionage and cyberattack. But technical protections applied to media infrastructures and content flows can also have direct impacts on important aspects of social life: for example, affecting the information access necessary for education, self-development, cultural participation, informed voting, and open and democratic government (Citron 2008; Cohen 2012). Governance processes in relation to media infrastructures are therefore much more than a ‘technical’ concern.

There are other examples of how media governance affects social life. Many platform companies (e.g., Google/YouTube, Facebook, Twitter) employ filtering algorithms to remove or de-list content that infringes copyright and related rights. Such automated mechanisms for content removal tend to be over-inclusive, removing both material that is clearly infringing and material that would be covered by the various limitations and exceptions to copyright (Quilter and Urban 2005; see also United Nations 2011).
In addition, many (if not most) platform companies employ predictive algorithms to determine what information to display to their users. In networked digital media and particularly for mobile applications, access to information is comprehensively mediated by such algorithms, which process data collected from users, often in combination with data purchased from other information collectors and aggregators, and rely on what is known or inferred about users to generate correlations and predictions (Turow 2011; Bolin 2011). National security services engage in similar data collection and process, often sharing the results with one another and helping each other circumvent the restrictions that might apply to data collection and processing conducted within territorial boundaries (Privacy International 2013). Like the filtering algorithms used for content monitoring, the predictive algorithms used in commercial contexts are maintained as proprietary trade secrets, while their counterparts on the intelligence side are maintained as state secrets. In both cases, secrecy frustrates efforts to document and understand the effects of such filtering processes on the flow of daily life and on everyday freedoms (Cohen 2012; Pasquale 2015).

At the institutional level, the relationships between governments and the corporate entities that exercise alternative forms of governance over media infrastructures are complex and often contested. For governments seeking greater regulatory authority over media infrastructures, the control exercised by corporate entities presents an obvious target for regulatory intervention (Birnhack and Elkin-Koren 2006; MacKinnon 2012; United Nations 2011). In China, for example, the coordination between state and private governance is relatively tight, fuelled by close ties between the state/communist party and IT conglomerates.

In North America and Europe, by contrast, the interplay of state and private governance mechanisms is more complicated. There are powerful pressures to comply with government demands for access to information for law enforcement and national security purposes, as the Snowden revelations showed. In the wake of those revelations, however, some companies, including most notably Apple, have redesigned their products and services to offer users greater privacy for their communications with each other (though, as we discuss in section 3.3, they have continued to collect other data streams for predictive targeting) and have more aggressively resisted government demands for access.[20]

Outside the law enforcement context, dynamics tend to be somewhat different, and reflect a greater perceived alignment of state and private interests. For example, US companies that engage in collection and processing of personal information often count government entities among their customers (Hoofnagle 2004), and
have looked to the US government to protect their economic interests in relation to claims for stronger privacy and data protection regulation. European information companies, for their part, value cross-border trade but also look to the European Union for protection against US-based rivals. With regard to private economic rights in information, copyright safe harbour legislation effectively positions corporate information businesses as the regulators of first resort. So far, however, efforts to impose in law parallel takedown obligations on payment providers and domain name system registrars have not succeeded.

The second shift described in this section – from state-based to transnational governance – involves two types of transnational governance institutions: trade dispute resolution bodies and technical standards bodies, in both of which the relative regulatory influence of corporations is growing. The global trade system has become a key mechanism through which both nation states and powerful corporate actors pursue their interests in regulating media infrastructures and controlling information flows. Many completed global, regional, and bilateral trade agreements – and many others currently under negotiation – contain key provisions dealing with recognition and enforcement of intellectual property rights and with flows of data and information services across borders (Calabrese and Briziarelli 2011; Freedman 2003). Although trade agreements typically contain provisions exempting protections for public health, environmental protection, and privacy rights from designation as nontariff barriers, the extent of those exemptions is unclear and their scope contested (Public Citizen 2015a). Arbitral proceedings alleging violations of trade agreements therefore may work at cross purposes with efforts by domestic legislatures and courts and international human rights tribunals to set appropriate limits on right-holder control of information and on the collection, processing, and use of personal information to sort and categorize individuals and communities.

Meanwhile, technical standards bodies have attained increasing prominence and power. Networked digital communications operate via information transfer protocols. Such protocols determine the resources to which individuals and communities have access and, depending on their design, may enable particular types of surveillance or afford bottlenecks at which state or corporate regulatory authority can be brought to bear (DeNardis 2014; MacKinnon 2012). Those protocols are the responsibility of an interlocking network of global standards bodies, including the International Telecommunications Union (ITU), the Internet Corporation for Assigned Names and Numbers (ICANN), and the
For example, the ITU, which oversees standardization and implementation of a variety of protocols for telecommunication, broadcasting, and data transfer, is overseen by the United Nations and representation is state-based, whereas the ICANN, which oversees the Internet naming and addressing protocols and maintains a dispute resolution system for resolving trademark-related domain name disputes, is a standalone corporate body chartered under the laws of California, with policies set by an elected board of directors.

In these multiple ways, the ability of national governments, and indirectly national civil societies, to influence the workings of media in everyday life (through governance structures) has been challenged by the cross-cutting ability of corporate interests to impose governance through other means. In considering the potential implications of media for social progress we need therefore to take into account this underlying shift in regulatory power.

3.3 The ambiguous implications of media-based governance for social progress

For citizens, networked digital media infrastructures may lower the costs of access to knowledge and enable new forms of participation in social, cultural, and economic life (see section 5). At the same time, however, citizens’ access to many important informational and cultural resources is subject to control by neo-authoritarian states and by information intermediaries of various sorts, including Internet access providers, search engines, mobile applications developers, and designers of proprietary media ecosystems. Such control often materially affects the level and quality of access. The implications for social progress are clearest when particular materials are blocked or removed, but mediated access also produces a range of other effects, which may or may not be consistent with SDG 9 concerning the construction of ‘resilient infrastructures’ and the promotion of ‘inclusive and sustainable industrialization’.

The increasingly global regime for intellectual property protection both incentivizes worldwide distribution of informational and cultural resources and creates additional barriers for those seeking access to such resources. As already suggested in section 2.5, licensing requirements for access to educational, professional, and technical materials can be onerous and the need to pay recurring fees for continued access to digitalized resources (rather than, for example, purchasing hard copies to which one may enjoy permanent
access) disproportionately burdens public institutions and lower-resourced communities. In the Global South, the costs of access to copyrighted materials can render access infeasible even for educational institutions and libraries (Chon 2007; Okediji 2004, 2006). In addition, a 1967 Berne Convention protocol governing translation rights is not widely used because its protections are difficult for developing countries to invoke. Among other things, the protocol requires that a compulsory licensing system be fully implemented in domestic law and does not make adequate provision for minority languages.[22] The Global South has adopted a variety of ad hoc solutions, but the lack of a clear framework often stymies efforts to make informational and cultural works available to global audiences that are linguistically and culturally diverse (Cerda Silva 2013).

In many parts of the world and for large parts of the population, everyday life routinely involves online access to a wide variety of purveyors of news, information, and popular culture, as well as search engines, social networking platforms, and other content aggregators that seek to help users find, organize, and make sense of it all. Access to these resources may be offered at no financial cost to users on an advertiser-supported basis, but often such access has a price, in the form of the automated collection of information about personal reading, viewing, and listening habits (Hoofnagle and Whittington 2014). Such information can be used both to target advertising and to suggest content more likely to appeal to each user.

Such predictive targeting of information access has a number of troubling economic and political implications. Algorithms for predictive targeting based on data about personal habits and preferences necessarily enable the identification of population segments sorted by, for example, race/nationality, cultural background, religious affiliation, socioeconomic status, and political preferences. Commercially, targeting based on such indicators raises the prospect of invidious discrimination in the distribution of goods and services, in decisions about employment and credit, and in myriad other ways (Barocas and Selbst 2016; Robinson and Yu 2014). The ability to conduct relatively granular price discrimination over those goods and services, in ways that deprive ordinary individuals of choice and corresponding marketplace leverage, sits in tension with free-market ideologies and raises profound distributive justice questions (Cohen 2015).

Turning to politics, micro-targeting of media content and political appeals that align with (inferences about) recipients' pre-existing inclinations creates the prospect of an 'echo chamber' or 'filter bubble' effect, through which pre-existing inclinations become reinforced and public opinion about political and cultural issues
becomes correspondingly polarized (Sunstein 2009; Pariser 2011). Individuals themselves can come to rely on filtering processes to simplify the information environment and reduce information overload (Andrejevic 2013). In an era in which descriptions of policy problems increasingly are subject to expert mediation – as with climate change or the global financial crisis – the filter bubble effect can work to entrench beliefs in ways that are highly resistant to scientific challenge or debunking (Andrejevic 2013: 12-18, 42-61, 113-32). This can undermine efforts to mobilize popular and political support for action toward social progress on various fronts (environmental sustainability, financial accountability, and so on).

A final set of ambiguities concerns the newly prominent transnational governance institutions described in section 3.2. Governance of media infrastructures and information flows via trade and technical standards bodies provides harmonization that many argue is essential in an increasingly interconnected world. But the new transnational governance institutions are accountable neither to national governments nor to traditional international governance institutions, and many lack robust democratic traditions of their own. Participation in such institutions may be perceived as offering opportunities for powerful national and/or commercial interests to avoid roadblocks interposed by domestic regulation, by the international human rights framework, and by civil society groups (Benvenisti 2015). Within the global trade system, both negotiation and dispute resolution processes are highly responsive to corporate interests yet much less responsive to other interests. Trade dispute resolution panels convened by the World Trade Organisation have, to date, ruled against states asserting protective regulation in all but one of the cases in which domestic protective regulations have been challenged (Public Citizen 2015a). In recent rounds of negotiation over high-profile multilateral agreements such as the Trans Pacific Partnership and the Transatlantic Trade and Investment Partnership, trade associations representing corporate interests have enjoyed privileged access to country-level negotiators and working drafts, while civil society groups and interested members of the public have been allowed only brief glimpses of later-stage documents, and only on condition of confidentiality. Technical standards bodies, meanwhile, are only gradually coming to terms with their own role as governance bodies (DeNardis 2009; DeNardis 2014; MacKinnon 2012: 203-19).

The result is a landscape of everyday media consumption configured by forces that are increasingly in tension with shared flows of information and open, inclusive development. The multiple overlapping processes for governing media’s underlying infrastructures are ever more secretive and resistant to civil society influence. This is the complex starting-point for thinking about two
important potential contributions of media and communications to social progress: the role of journalism in the production of public knowledge (section 4) and the role of networked communications in enabling new forms of citizenship (section 5).

4. Journalism and public knowledge

One key way in which media can contribute to social progress over the long-term is through the provision of public knowledge (Sen 1999). The term ‘public knowledge’ refers to the resources that citizens have for forming informed opinions about matters of public and general interest. Journalism has for centuries been a key institutional form for disseminating such knowledge.

4.1 Public knowledge for democracy and social progress

Digital media infrastructures create new opportunities for the dissemination of public knowledge. Although the decline in civic participation in established democratic societies has been widely lamented (Putnam 2000), other observers (Lewis, Inthorn and Wahl-Jorgensen 2005; Dahlgren 2005) have pointed to the growth of new communities online and the growth in quantity and diversity in communication platforms outside of the traditional news media, where citizens can exchange information and participate in political debate. Additionally, whereas public knowledge traditionally was disseminated through news and information in the press, radio and television, social networking platforms are becoming a major news source for citizens.

Early research on public knowledge overemphasized news distribution and correspondingly undervalued other sources of information, such as popular culture and entertainment (Corner 1991). Both sources of information can contribute to the formation of public knowledge and to social progress, as can be appreciated when we consider the political and cultural aspects of citizenship. Where political citizenship deals with issues related to the formal rights (and duties) of citizens, and is most often mediated by traditional categories of news about current affairs and politics, cultural citizenship deals with questions of recognition, identity, and the cultural rights (and duties) of citizens, and is mediated by various sorts of information that circulate in the cultural public sphere.
The distinction between political and cultural citizenship may become more blurred when the convergence of entertainment media and political citizenship is taken seriously (Hermes 2005; Van Zoonen 2005; Williams and Delli Carpini 2010). But none of this potential to create public knowledge matters if media content produced by an elite ‘professional’ class of journalists does not resonate and with audiences’ everyday lived experience. Today various factors point in that direction, both in forms of propaganda and destabilizing communicative practices and in problems within systems of education, where much of the socializing of citizens take place (*SPI 'Access to basic knowledge').

In this section we outline, first, the special roles that journalism plays in public knowledge, and so why journalism is important for democracy and social progress. We will then give examples of the various ‘soft’ and ‘hard’ threats that we identify as detrimental to public knowledge, including both changes in business models, news reception, and new forms of ‘information management’, and, more directly, various physical threats against news production, and journalists in conflict areas and unstable democracies. Thirdly, we will point to areas where there are opportunities for countering this negative picture, for example the rise of citizen journalism and alternative media. We end this section with a double case study of organized attempts to construct alternative journalistic narratives in Latin America and the Middle East.

4.2 The special functions of journalism and journalistic practice

Journalism is still associated, especially in the established democracies of the Global North, with the institutions and practices of democracy (Fenton 2010: 3). There are many examples, both historical and current, of how journalism has contributed to public knowledge for social progress (*SDG 16*). These include, for example: the anti-slavery campaigns that benefited from press assistance with the formation of abolitionist organizations (King and Haveman 2008), samizdat publications in the former Soviet Union (Feldbrugge 1975), information about environmental disasters such as the 2011 Fukushima nuclear accident that was spread not only by mainstream journalists but also by citizens on blogging and social media platforms (Friedman 2011) or the role of the underground press in the struggle against apartheid (Switzer and Adhikari 2000). For these reasons the contribution of journalism to public knowledge remains an important reference point in the broader context of global social progress.

The emergence of digital media infrastructures has had profound implications for traditional conceptions of news and journalism. These include a proliferation of the channels through
which journalism is produced and consumed, and a blurring of the
lines between news and entertainment through the rise of formats
such as the ‘mockumentary’, ‘docudrama’ and satirical news. The
participatory potential of digital technologies, aided by the
widespread accessibility of technologies such as the mobile phone,
has challenged previous claims by professional journalists to
exclusivity in the purveying of news. Additionally, the business
models for journalism have undergone a fundamental transformation
in recent years, even as new opportunities have arisen for the
creation of public knowledge and citizen participation in the
construction of knowledge and public debate.

Against the background of rapid change, however, the
expectation that news journalism will contribute to public
knowledge, the monitoring of power and the facilitation of public
debate remains an ideal against which communication practices
continue to be measured. The mere fact that information is publicly
disseminated and available does not automatically result in an
informed public. Additionally, in the context of changing frameworks
of reception, citizens’ ability to orientate themselves in today’s
increasingly complex media landscape, drawing perhaps on the skills
provided by education, are ever more important.

4.3 Threats to public knowledge 1: soft threats

The digitization and marketization of media (discussed in
section 2) have affected the institutional conditions for journalistic
production. The news industries have entered a downward spiral
where it has become ever difficult to charge for content, and where
shrinking readership makes advertisers abandon print media to the
benefit of online search and social networking.

The old business models of journalism are collapsing, and news
producers have had to rethink their relation to audiences, leading in
turn to changes in journalistic practice. New forms of ‘click-bait
journalism’, robot journalism and algorithmically steered news
production are increasingly common. These follow different logics
from traditional journalism, and in their most extreme forms may
produce echo chambers or filter bubbles (see section 3) that in the
long run fragment public debate and the public sphere more
generally. The automated search for audiences through data
processing also may further marginalize those audiences who are
already on the margins of the public sphere. In countries where
access to the digital public sphere mirrors huge social and economic
inequalities – for instance South Africa, India, China and Brazil – these
new practices could exacerbate such inequalities.
The re-organization of media production into large-scale media corporations with interests also in non-journalistic media production has meant that even financially successful journalistic and public knowledge operations cannot always reinvest their profits into news production, but instead have their profits re-invested in other activities. This lack of economic control makes it difficult to sustain long-term strategies of news production. While there has always been a tension between editorial and management teams within news organizations, large-scale media corporations shift economic decision-making farther away from news production environments, resulting in managerial decisions that direct journalistic practice from the outside.

There are also regulative threats to independent news media production. In Europe, the traditional freedom of public service broadcasters to choose their policy orientations has come under attack by newly powerful private broadcasters (SPI 'Press freedom'). One result is the public value test instigated by the European Commission, which emerged from private broadcasters’ intense lobbying efforts in relation to the European Commission (Donders and Moe 2011).

While online (including mobile) media have created new platforms for social agency and public participation, both in the creation of ‘user-generated content’ (UGC) for mainstream media and in providing outlets for alternative news and views, the Internet has also become a space where reactionary views, racist representations and hate speech can thrive. Social media like Facebook and Twitter contribute to the proliferation of this kind of communication. Misunderstandings of complex matters and online 'lynch mobs' illustrate the volatility of networked digital media environments and offer testimony to the limits of social media for public debate.

4.4 Threats to public knowledge 2: hard threats

In many parts of the world, growing political instability has affected journalism’s ability to fulfil its broader public knowledge goals because of direct threats to press freedom (see SPI 'Press Freedom'). For example, in some parts of Eastern Europe, political polarization has arisen as some post-Soviet states have sought closer ties with the EU. The Ukraine-Russia conflict is one, widely reported, outgrowth of this polarization, but the phenomenon is also visible in other post-Soviet countries (Richter 2015). Information warfare is on the rise, not only in the region itself, but also in international news media (for example, via TV channels such as Russia Today and Ukraine Today (Miazhevic 2014)). Initiatives for disinformation and propaganda/counter-propaganda, including so-called 'troll-factories'
maintained in Russia (and elsewhere),[25] make efforts to enhance public knowledge increasingly difficult. The sheer amount of seemingly contradictory information circulating puts high pressure on audiences' critical abilities. A recent example is the overload of contradictory information that surrounded the shooting down of Malaysian flight MH17 over eastern Ukraine in 2014, and the sharply divergent accounts that circulated on the Internet both before and after the Dutch Safety Board published their report of the crash.[26] Similar dynamics have emerged in the Middle East, leading to an increasingly polarized and propaganda-dominated public sphere (see further 4.6).

In many African countries also, journalism for public knowledge remains an ideal rather than a practical reality. In the Windhoek Declaration on Promoting an Independent and Pluralistic African Press (UNESCO 1991), African journalists invoked the Universal Declaration of Human Rights as a motivation for the promotion of press freedom. At the same time, however, African resistance to colonialism and rejection of cultural imperialism engendered an insistence on 'African values' in journalism, couched in the discourse of development but often implying uncritical and loyalist media support of post-colonial states. An example of an appeal to 'African values' is Francis Kasoma's (1994, 1996) notion of 'Afriethics', which rejects Western normative frameworks and counterposes an African value system that privileges communalism and an orientation towards the family and clan over individualism. Appeals to 'African values' have often been criticized for their tendency to essentialize African culture and identity, without acknowledging the interpenetration of African and Western values in a globalized context (Banda 2009; Skjerdal 2012). Additionally, such appeals have served to justify repression of media freedom in many African countries (see Bourgault 1995; Karikari 2007).

Lastly, against the background of political instability, propaganda wars, and state repression, violence against journalists has also increased. Some examples include: Egypt clamping down on journalists, activists and civil society; the consolidation of electoral autocracy and temporary closure of digital platforms in Turkey; and repressive measures from verbal threats to physical assaults and imprisonment in various African countries. In Poland, a new legal regime has circumscribed the freedom for journalists, making critical and investigative journalism more difficult and precarious.[27]

4.5 Opportunities for public knowledge: new forms of journalism and citizen media
Meanwhile, digital media infrastructures have enabled the growth of new forms of citizen-created media for the production of public knowledge. In many African contexts where legacy media like newspapers and radio stations are owned and controlled by the state, digital media platforms have served as alternative outlets for the dissemination of news, political debate and critique (Paterson 2013). In Zimbabwe, for instance, Facebook has provided users with more freedom to engage in political satire and offer alternative accounts of political developments (Mare 2014). The widespread penetration and use of mobile media in Africa have also provided users with a tool to engage more actively with mainstream news agendas. An example of this was the mobile phone footage of police brutality against a Mozambican immigrant, Mido Macia, in Daveyton, South Africa. The footage of police dragging Macia, cuffed to a police vehicle, was captured by a bystander and sent to the tabloid the Daily Sun, who posted the video online and reported on it. The video went viral and made headlines internationally after Macia died in police custody, and led to the arrest and conviction of the police officers. This integration of citizen journalism, legacy media (especially tabloids) and online platforms such as Youtube or Facebook, has provided journalists and news consumers with new ways of creating public knowledge and serving the public interest.

In South Korea, citizen journalists have used digital networks for producing alternative civic discourses and for mobilizing enormous rallies of citizens to speak out on socially sensitive issues. More recently, social media have given rise to new alternative media such as Newstapa (‘Rebuilding Investigative Journalism’) launched in January 2012. Due to the government’s control over public broadcasting, some former employees of the major TV networks and other small-sized production team members have come together to produce an investigative news program about social issues. Newstapa uses a variety of online outlets such as its own webpage views, YouTube clips, and podcast episodes, and the younger generations download and watch its weekly episodes using their smartphones. Social media also play a key role in spreading the news program’s schedule and in enabling public fundraising to support production. Newstapa has gained a reputation as an influential news provider and as illustrating how, through regular practices of collaboration, citizens can build alternative paradigms of social justice against mainstream media and power elites.

Meanwhile, during the political turmoil and violence following the ousting of former President Yanukovich in Ukraine, faculty and students from the Mohyla School of Journalism in Kyiv created StopFake (stopfake.org), an organization aimed at debunking Russian propaganda and the distorted news produced by troll-factories. Another civic initiative formed during the political turmoil was The
Ukraine Crisis Media Centre, which is a platform for information management that arranges press briefings with representatives of the Ukrainian military and government (Bolin et al. forthcoming).

There are therefore many overlapping factors shaping media’s possible contribution to public knowledge in different parts of the world today. In the next part of this section, we offer a double case study from Latin America and the Middle East that considers the possibilities of building new infrastructures for journalism that can offer alternative voices to counter perceived dominant narratives.

4.6 Double case study: TeleSUR and Al Jazeera: Alternative voices in global news

The Venezuelan channel TeleSUR and the Qatari channel Al-Jazeera are often hailed as models of media with global reach that have challenged the North Atlantic domination of global news flows and reference-points. These two long-surviving channels have much in common: they were both made possible by the large political ambitions of their founders, Hugo Chávez and Hamad bin-Khalifa Al Thani; both faced indifference or hostility in the world’s power centers; and both evolved from single channels into multi-platform networks.

TeleSUR

Sponsored by the left-leaning government of Hugo Chávez in Venezuela (1999 – 2013), TeleSUR was formed on Simon Bolívar’s birthday, July 24, 2005 (Da Silva Mendes 2012), as a regional television network with the goal of broadcasting ‘from the South to the South’. Understanding TeleSUR requires an examination of the framework of media concentration and exclusive self-interest achieved by economic elites in Latin America since the 18th century. From the inception of electronic media (radio in the 1930s and television in the 1950s), Latin American upper classes have controlled the media and used them to advance their own political and financial interests, at the exclusion of the interests of working class majorities. Through control of commercial and public media, political and economic elites secured ideological control over, and the opportunity to profit, from mass audiences.

As far back as the 1970s, strong activist voices and social movements questioned the role of elitist media in Latin America. The influence of the nearby US media system provoked strong opposition among the Latin American left. Venezuelan president Hugo Chávez created
TeleSUR as a television network that would prioritize the information and communication needs of the oppressed majorities in the region and disseminate an autonomous Latin American perspective. Drawing explicitly from the language of the New Information and Communication Order (NWICO), TeleSUR defines itself as ‘a Latin American multimedia initiative dedicated to promoting unity among the peoples of the South; a space and a voice for the development of a new communication order’ (www.telesur.tv.net). It defines ‘the South’ as a ‘geopolitical concept that promotes the people’s struggle for peace and self-determination and respect for human rights and social justice’. TeleSUR has had two different goals: to offer an alternative to US and European hegemonic news media, (e.g., BBC or CNN); and to shape a unified Latin American public sphere (Cañizalez and Lugo 2007). TeleSUR prides itself on its counter-hegemonic approach to news and information, as evident in its coverage of key historical events such as the bombardment of Colombian FARC guerrilla camps by the military, or the demise of Gaddafi’s government in Libya.

It is not a coincidence that TeleSUR emerged in 2005 at the same time that the region shifted to the left, with several countries electing left-leaning and/or socialist presidents, including Lula da Silva in Brazil (2003 – 2011), Evo Morales in Bolivia (2006 – 2014), Néstor and Cristina Kirchner in Argentina (2003 – 2007 and 2007 – 2015), Rafael Correa in Ecuador (2007 – present), and Michelle Bachelet in Chile (2006 – present). Cuba has been a strong supporter of TeleSUR since its beginnings. TeleSUR’s slogan - ‘Nuestro norte es el Sur’ (Our North is the South) - embodies this shift in perspective, proclaiming itself as the voice of a pan-Latin American public sphere unified around a new left, offering ‘a militant way to think the world’ (Rincón forthcoming), and a commitment to shift the news from a US and Europe focus to Latin America, Africa, and the Arab world.

TeleSUR is co-financed by various Latin American governments, including Venezuela, Argentina, Cuba, Uruguay, Bolivia, and Ecuador (Da Silva Mendes 2012). TeleSUR has a fragmented presence throughout the region: while in Venezuela TeleSUR has a penetration of close to 100%, in Argentina only those homes that subscribe to Direct TV, about 6% of the national market, have access (Da Silva Mendes 2012). Although some Latin American analysts suggest that TeleSUR is more the loudspeaker of ‘Chavismo’ (the political platform of late Venezuelan president Hugo Chávez) than a pan-Latin American voice (Moraes 2011), TeleSUR makes an important contribution to public knowledge: information and news make up 80% of TeleSUR’s programming and the rest is comprised of films, documentaries, and innovative formats centered on renowned Latin American personalities (Da Silva Mendes 2012; Rincón forthcoming). Originally set up as a regional information and news cable television
network, in 2009 TeleSUR grew into a multi-media platform with a strong presence online and in social media and its own distribution system: TeleSUR currently has five satellites covering South, Central, and parts of North America, and parts of Europe, the Middle East and North Africa.

**Al-Jazeera**

Al-Jazeera, referring to the original, Arabic-language channel (not the later ‘Al-Jazeera English’) was formed in late 1996, by a Qatari leader who toppled his father in 1995, and quickly moved to free Qatar from the influence of its larger neighbor, Saudi Arabia. The Emir drew on Qatar’s vast reserves of natural gas to award Al-Jazeera an initial grant of US $ 140 million, which allowed the channel to hire most of the 250 BBC-trained, Arabic-fluent journalists, reporters and directors made available by the break-up of BBC Arabic in 1996. In addition to declaring independence from Saudi Arabia, the Emir’s goal was to give Qatar a regional and global influence disproportionate to the country’s small size.

Al-Jazeera’s unbridled news coverage quickly offended Arab leaders accustomed to deference and Western powers unused to having their narratives of global affairs challenged. By early 2004, the government of Qatar had received more than 500 complaints from Arab governments focusing on Al-Jazeera (Lamloum 2004: 20). In the West, after Al-Jazeera was hailed as a beacon of free speech in its first few years, the channel became vilified as the loudspeaker of Al-Qaeda in the wake of the September 11, 2001 attacks on US soil. Al-Jazeera’s sympathetic portrayal of Palestinian suffering under Israeli occupation, and of Western intervention in the Middle East, turned it for some into the ‘channel of Arab disenchantment’ (Sahraoui and Zayani 2007: 66).

Al-Jazeera became a global household name in the wake of the Anglo-American invasions of Afghanistan and Iraq in 2001 and 2003, when the channel’s deep coverage was reused by Western news organizations. Al-Jazeera however faced problems from its inception: a Saudi commercial boycott and a Saudi-launched rival, Al-Arabiya (from 2003); and repeated political pressure from all over the world, but particularly the US Bush administration and Arab governments, to restrain its editorial line. Internal frictions between editorial board and staff members, personality clashes between the channel’s star anchors, and the channel’s reactionary treatment of women anchors were other problems (Kraidy and Khalil 2009; Zahreddin 2011). A conflict between two factions, one secular and Arab nationalist, the other Islamist and sympathetic to the Muslim Brotherhood, whose brand of Islam was supported by the Emir of Qatar, undermined the channel (Kraidy and Khalil 2009; Talon 2011).
In the following years, Al-Jazeera grew from a single channel to a network of multiple channels, including Al-Jazeera English, a training center, a massive presence online, and other platforms. The Arabic-language Al-Jazeera’s editorial line was sympathetic to the centrist Islamism of the Muslim Brotherhood, to the Palestinian cause, and to the Global South. Some of these issues carried over into Al-Jazeera English whose editorial line critical of US-led Western dominance of world affairs has significant overlaps with TeleSUR’s. Al-Jazeera English became soon itself a major global news player, distinguishing itself with its deep coverage of Africa, four broadcast bureaus in Doha, London, New York and Kuala Lumpur, and dozens of offices and correspondents worldwide. The channel’s launch generated anxieties in the West, particularly the US, as to whether the new channel would share the Arabic channel’s pro-Islamist, pro-Palestinian editorial policy, simplistically coded as ‘anti-American’ (Kraidy 2008). In the following decade, Al-Jazeera continued to make headlines, in particular when it announced the launch of a US-based channel, although Al-Jazeera America only survived 3 years in an economically competitive and politically hostile US market.

Al-Jazeera shifted its editorial line with the onset of the Arab uprisings in 2010. In Egypt, the channel supported the Muslim Brotherhood against Mubarak. In Syria, it also sided with the rebels against Assad. Egypt and Syria coverage were in sync with Al-Jazeera’s long-established outlook. But its political positioning became clearer when it sided with the Saudi-supported repressive government of Bahrain against demonstrators there, reflecting Al-Jazeera owner Qatar’s rapprochement with Saudi Arabia. Although Al-Jazeera and Qatar gained some ground as a supporter of the Muslim Brotherhood in Egypt and the Muslim Brotherhood-affiliated Ennahda in Tunisia, ensuing political shifts, driven by rapprochement between Qatar and Saudi Arabia, undermined Al-Jazeera’s status as a counter-hegemonic news outlet.

The double case study illustrates both the opportunities and the constraints on attempts to create globally influential public knowledge outlets from outside the Global North.

5. Networked communications: possibilities for citizenship
We have argued in section 4 that media's potential contribution to social progress through public knowledge faces significant threats but, in a digital age characterized by an increasingly global media infrastructure, brings important opportunities too. In this section, we consider how citizens make use of the informational and imaginative materials that media provide to them.

5.1 Relations between media and spaces of citizenship

Today's new density of global communication not only enables continuous interaction across world regions but is beginning to shape new spheres of civic communication on every scale. Communication interfaces (from WhatsApp to WeChat) offer a new architecture of civic discourse which is no longer merely national or international: the resulting spaces where citizens interact are shaped not by the media spheres of particular territories but by individuals' choices of what to follow online. Furthermore, these networked spheres of civil communication are no longer accessible only in the Global North but engage citizens – with Internet access – from all types of societies, including so called failed states. Through this, media become involved in opening up new spaces of citizenship (SDG 16.7).

Although citizenship is national and the boundedness of state territory continues, communication is shaping a new form of civic identity which is increasingly *embedded in* a globalized digital space. As Saskia Sassen has argued, rather than globalization operating outside and against the national, 'the nation is the site of globalization' (Sassen 2007: 80, added emphasis). Today this merging of national and global takes different shapes in different societies. Even secluded states such as North Korea and failed states such as Syria, Somalia and Afghanistan have their own modes of nation-based globalization. However, the point is particularly important in relation to public civic communication where national and global public spheres merge, and public deliberations, legitimacy and accountability no longer develop solely through national debates. Rather, as can be observed, for example, in contexts of climate change, governments are held accountable based on broader global discourses.

As with the history of media (section 2), these developments are still mainly considered from the perspective of nations in the Global North, with narratives often not looking beyond Western communications theory and research (Farivar 2011). Similarly, accounts of diaspora's use of media often ignore political connectivity *between* expatriates of the Global South that link back to civic discourse in their countries of origin. The roles of non-governmental actors in failed states and civic communications in...
post-conflict resolution constitute other examples of new forms of connection between citizens across borders. Citizens of the Global South such as forced migrants are communicating outside national media territories (Witteborn 2015). Networks of activism, deliberation and mobilization, not possible in the past, are emerging whereby media provide new infrastructures of citizenship as part of what the MacBride report called the ‘many voices’ of ‘one world’.

Section 2 discussed the historical dominance of communication flows from the Global North, linked to colonial communication infrastructures and extended by satellite communication infrastructures emerging in the 1970s for the delivery of broadcasting content and, since the 1990s, for individual media reception. For most of the 20th century, the globalized ‘stretching’ of human interactions through media -- the ‘intensification of worldwide social relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and vice versa’ (Giddens 1990:64) -- was, in its framing, dominated by news channels from the Global North, such as BBC, CNN, Deutsche Welle, with few opportunities to contest it.

This situation has changed significantly since the second half of the 1990s due to three interrelated processes: the emergence of digital satellite platforms enabling the delivery of no longer just a few but hundreds of channels, the reduction of uplink costs for broadcasters, and the availability of cheap direct-to-home roof-top dishes. Furthermore, and most importantly, new regional media players have challenged the monopoly of political ‘breaking news’ in times of world conflict. Such news is often delivered ‘live’ worldwide and has influenced national foreign policy imperatives in various countries (Volkmer 1999; Robinson 2005), contesting the framing of world events by media corporations from the Global North (see also Section 4.6). Whereas CNN produced the only narrative of the first Gulf War (1990-1991) for a world audience, now there are hundreds of satellite news channels from the wider Arabic region, from Sudan, Pakistan, Tanzania, and at least fifty channels dedicated to news from India, South Korea, China, Mexico and Brazil. In addition, some region-wide news channels, such as Channel News Asia and Africa 24, are available in several languages and target neighbouring regions.

The resulting digital ecology for civic participation has two additional key characteristics. The first is the increasingly complex flow of media and information organized not just by media organizations, but by citizens’ own efforts to upload or recirculate what interests them. This results, second, in new forms of ‘reflective interdependence’ (Volkmer 2014) whereby, through the sharing of reference-points across borders, citizens acquire the basis for shared
political debate or activism on topics ranging from climate change, human rights violations and crisis communication to political campaigns such as the ‘Occupy’ movement. Under these new conditions, civic engagement no longer occurs in one ‘place’, but across a network of places.

While living in Singapore, someone can vote in the national election in the home country, and meanwhile participate in climate change communities in Kenya which themselves are informed not only by local knowledge or national media’s climate change agenda of but rather by the information sources individual citizens seek out. Although only a minority of the population is engaged in these new global networks, ‘their contribution to democracy cannot be underestimated’ (Frere and Kiyindou 2009:79, 77). In many countries, state monopolies on the inflow of foreign news are no longer possible. For example, it can be argued that African governments have ‘hardly any grip on the choices of the Internet user-consumer, who can freely choose the information that is interesting or useful and decide to join a particular “virtual community”’ (Frere and Kiyindou 2009:78). This flexibility in the resources available through online media, including information and deliberation accessed across borders (Bohman 2007), changes potentially citizens’ horizons of civic engagement.

5.2 New forms of communicative citizenship: the case of global youth

As an example of these emerging trends, young citizens in many countries are engaging with each other in unprecedented ways, in peer-to-peer interaction within and across borders. In order to assess the implications of these new digital ecologies for civic identity, we need to consider the interaction between local and global media practices and information flows.

The density of these interactions is revealed in an international comparative study on ‘Global Youth and Media, Notions of Cosmopolitanism in the Global Public Space’ (discussed in Volkmer 2014). The study included more than 6,000 14-17 year-olds in nine countries on five continents.[29] The study asked how these young people use media, how they construct globalization and perceive civic identity. The distinctive uses of local, national and global media by particular generations have been little researched. While national television is the general population’s preferred medium for political news, young people find news in parallel ways through Google news, MSN, Yahoo. Across all society types, this younger generation mixes local and global information flows in a distinctive way that entitles them to the label of ‘in-betweeners’. As a result, they consider themselves between scepticism and trust, between a realistic
appreciation of global risks (indeed a strong sense of world insecurity) and the need for leadership. When asked if they feel that the world today has become more insecure when their parents were young, 80% agree. Yet more than half consider international political events more important than national and so seem to live out their citizenship on two connected scales, national and global. They distrust politicians and engage in global political spheres characterized by global themes such as ‘environment’, ‘human rights’ and ‘economy, wealth and poverty’.

A Mexican sociologist describes in the context of Central America the implications of such an engagement for local citizenship: ‘the protest movements with a global reach, and the presence of leadership of young people in them, bring to mind the emergence of a new political cosmopolitanism among youth. Its native land is the world, and its strength lies in its (seeming) absence of structure, its intermittence and the multiple nodes in which its utopia is anchored’ (Reguillo 2009:34). In this analysis Central America’s young generation is both ‘disconnected and unequal’ and ‘well situated, connected and globalized’ and increasingly engaged in national and transnational youth publics (Reguillo 2009:23). Other regions provide further evidence of youth agency converging around local networks of publicity in Cairo (Arvizu 2009:387), Tanzania (Tufte and Enghel 2009), and Chile (Munoz-Navarro 2009). In Kenya and other parts of the Global South, media provide platforms for youth to interact and participate in political debates worldwide, leading one analyst to comment that, for the Kenyan diaspora, social media is an ‘integral aspect [of] Kenya’s social and political dynamics’ (Mukhongo 2014).

However, the implications of these emerging forms of public engagement in regional media cultures require more attention. For example, in Central Asia, urban youth are drawing increasingly on global sources of information and so ‘are increasingly judging the worldviews and behaviours of parents, teachers, political elites and other traditional authority figures against that global context … they are suddenly able to compare themselves with anyone, anywhere’ (Ibold 2010:532). As anticipated by Joshua Meyrowitz three decades ago (Meyrowitz 1985), but now on a global, not national, scale, media flows can work to challenge knowledge barriers and destabilize relations between generations, so forging new bases for civic identity and action.

5.3. Case study: Connectivity and social progress in a Chinese heritage village
The world’s rural population is at its largest ever today, even though the world’s urban population is (slightly) larger. An understanding of rural connectivity and its relation to social progress is therefore indispensable. While each country and each village is unique, China’s long agrarian tradition, its history of peasant revolution and Mao-era media and development legacy, as well as the post-Mao state’s drive to close the urban-rural digital gap, make it a compelling country case study. Drawn upon ethnographic work (Zhao forthcoming), this case study in one Chinese village highlights the complex web of traditional and modern forms of connectivity, the tensions between old forms of cultural identity and new forms of mediated encounters, the paradoxical implications of increased connectivity, as well as the challenges of sustaining community cohesion in a globalized village.

Located in the mountainous interior region of China’s coastal Zhejiang Province, Heyang has a population of 3,670 and more than 1,100 years of history. It is a quintessential embodiment of China’s agrarian civilization. Its well-preserved Ming-Qing era traditional architecture earned it a place in 2013 in the Chinese State Council’s list of key sites of national cultural relics. However, this is also a modernized and globalized village: not only have many of its residents travelled outside for business and education, but also part of its economy is integrated into global circuits of production. Some village elders and women, in fact, are earning cash on a piece-meal basis by assembling the parts of small exported commodities. As such, these villagers are part of China’s assembly workforce, turning their living-rooms and hallways into the remotest extensions of China’s global workshops. Moreover, like the rest of rural China during the post-Mao-era, Heyang has also undergone a process of hollowing out: more than half of its labor force now work outside the village – many as far as Guangdong, Guangxi, Hainan, Shanghai and Beijing – engaging in small businesses, manufacturing and service occupations. The majority of these people only return briefly to reunite with family members during festival periods.

Village communications also cut across the traditional and the modern. The oral tradition remains strong: the village’s Senior Center and popular street corners serve as sites of information and gossip exchange. Public announcements are posted at centrally located information boards and walls at different village corners. However, the village’s lineage book, started more than 600 years ago by a Ming-Dynasty official from the village, is publishing its 16th edition. The book contains biographies of notable individuals and registers the names of all male descendants (female descendants were recorded in its 15th edition, compiled in 1995).
Wired radio and communal film projection were the most popular forms of mediated communication and entertainment during the 1970s and early 1980s. Along with village assemblies, these low-tech forms of communication played pivotal roles in Mao-era political mobilization and cultural integration. Their embeddedness in communal life was instrumental to their success in linking villagers to the outside world and sustaining village cohesion. Starting however from the late 1980s, information reception and entertainment have become privatized and personalized. As villagers are exposed to wider and more diverse media flows, many feel more isolated from each other. Social stratification and income polarization, following the dismantling of the collective economy, have engendered a further sense of social dislocation and community disintegration.

The 1990s saw the village's further leap into the digital age: automated direct dial telephone started in 1990; cable television and analogue mobile telephony arrived in 1994 and by 1997, digital mobile telephony. Today, Heyang is among the 150,000 Chinese villages with broadband access (in 2015 China's State Council promised a 98% village broadband access rate by 2020). While desktop computers are rare, telephone, especially mobile phones, are widely used, but only the young and economically better-off have smartphones to connect themselves to the Internet.

Digital cable, satellite television, and mobile Internet have brought villagers unprecedented access to the outside world. Some female square dancers in the village, for example, have used their smartphones to download videos of the latest style of dancing, in this way imagining themselves as part of a larger community of dancers across the country. A tiny minority, like their urban middle-class counterparts, even engage in online stock trade. On the other hand, there is a 90-year old illiterate villager who has disconnected himself from any modern means of communication either by default or by choice: not only he has never used a telephone, but also, after the first black-and-white television set was broken years ago, he did not bother to buy a new one, believing that watching television is not good for health. He is happiest when his offspring visit him and listen to him telling his past.

In between lies a wide spectrum of communication patterns and circuits of connectivity that have made Heyang a small-scale model of China's highly stratified society. Wechat, the most popular Chinese social media platform, is popular among village elites, the young and the economically well-off. One member of the Village Council has more than a dozen Wechat friend circles, with relatives, businessmen originally from the village, government officials, and students of Heyang's culture. However, with inclusion also comes exclusion: such Wechat friend circles are limited to this member's own professional
and interpersonal networks, and so exclude the majority of villagers. Moreover, her Wechat communications are mostly externally-directed, aiming at promoting Heyang as a tourist site, rather than at fellow villagers. Meanwhile, with the higher cost of a digital cable subscription, some poorer villagers have given up on cable television service altogether to opt for satellite television, which only requires the one-time purchasing cost of a satellite receiving dish. But such satellite television services do not include local municipal and county television channels. Consequently, these households end up with no access to local television news.

As a result, many local residents, especially those in the lower social strata, complain about their lack of communication with village leaders, lack of effective participation in village affairs, and a general sense of powerlessness in shaping the village's future. Caught in a complex web of local governance, land appropriation, village renovation, and tourist development, villagers resort to protests and blockages of village construction projects to communicate their demands and frustrations. In one case, in an attempt to make their voices heard, some residents refused to allow a CCTV crew to film their residential courtyard for the 2015 Spring Festival Gala; others have tried to derail the village's lineage book compilation project. A few villagers have also expressed a desire for the return of a village wired radio system and Mao-era face-to-face meetings of the village community as a whole. Finally, underscoring the fact that China's 'great digital leap forward' has not created upwardly mobile opportunities for all, X. Zhu, a 24-year-old Heyang village youth, arranged his own suicide through the Internet in early 2010. Another 24-year-old netizen came all the way from Yunan Province in southwestern China to commit suicide together with Zhu. These young men had met each other virtually through an Internet chat group. Thus, if the story of the 90-year old in Heyang is one of resilience and self-fulfillment, that of Zhu, who grew up in a well-off family with post-secondary education, but did not live to see a future in Heyang, is one of the saddest stories of digital connectivity, awareness, and fatalism offered by the globalized Chinese village of Heyang.

5.4 Networked communications among East Asian precarious workers

Networked communications offer opportunities in many countries for new forms of political and social connection, which may be especially important in spreading public knowledge where public broadcasting systems are under threat (see section 4). But this opportunity may occur in the context of social conditions, particularly labor markets, where ICTs are intensifying the deterioration of working conditions and sustaining new structures of
The mobile phone has become deeply entangled with the precarious labor culture in Northeast Asia. Mobile communication technology has intersected with the emergence of increasingly insecure working conditions, particularly those of young Northeast Asian workers, who are situated within the 'institutionalized precariousness' of a dual economy made up of a large reserve army 'with no employment prospects, no future, [and] no plans' (Bourdieu 1998: 30f), alongside a small privileged minority of secure workers with a regular wage. A 'mobile precariat' (precarious workers who use mobile phones to sustain their living within an always-on-call working culture) suffers from chronically insecure job positions as temporary staff or contract workers: they are trapped at the bottom of the pay scale, yet at the same time remain connected through media to the workplace (Qui 2009). This mobile precariat is disadvantaged not only through the labor exploitation they endure, but also when it comes to seeking remedies for these injustices (see Shaviro 2002; Seo and Kim 2009 for important studies).

Employers' attitudes vary to mobile phone use among their precarious workers. Whereas in Japan and Taiwan, workers must leave their phones behind, beyond their reach, when they start work, in South Korea, where the conditions for workers are extremely insecure with the second longest working hours among OECD countries (2,124 hours/year as of 2014), mobile phones are allowed at work. However, in all countries, possessing a mobile phone renders precarious workers vulnerable to a wider culture of surveillance. Many employers monitor their workers' lives outside of formal working hours by using mobile instant messaging services (KakaoTalk in Korea; WeChat in China; Line in Japan and Taiwan). Transgressing the normal boundaries of work, employers use phones to issue orders to their precarious workers on matters such as cleanliness, service management, and the employee code of conduct.

The outcomes are however unstable. In South Korea, young precarious workers have attempted to stir public opinion against unjust business practices, by posting images and chat messages on social media platforms. They, in turn, have been disciplined through remote monitoring on live surveillance mobile apps and mobile instant messaging. In Japan, there have been on- and offline protests against 'black companies', notorious for exploiting precarious workers, with workers using the Internet and social media to disclose their unfair treatment in the workplace and share it with others. Given the collapse of the public broadcasting system in Japan, online...
citizen journalism and alternative journalism have also offered platforms for building alternative understandings of social justice in the workplace that go beyond the agendas of mainstream media.

208 In summary, Northeast Asia offers a clear example of how the mobile phone as an infrastructure of connection has become a new technique for regulating labor in an always-on-call culture, yet continues to offer opportunities for movements for social justice and social progress.

6. Struggles for social justice through the democratization of media

210 Having in sections 4 and 5 considered how the outputs of media contribute variously to new forms of social connection and environments of public knowledge – two preconditions for action towards social progress – we turn in this section to the new social issues raised by the increasingly complex governance structures for media and communications outlined in section 3. We first place those issues within the context of a longer-term struggle for media reform.

6.1 The longer history of democratizing media

211 The expansion of media infrastructures into ever wider areas of life through digital platforms has generated new types of media activism (Milan forthcoming). Across many different nations both in the Global South and the Global North, today’s media activists fight struggles on fronts as diverse as data protection regulation, non-corporate technology design, digital pollution, access to technology for all, and net neutrality. However, popular attempts to shape media infrastructures into more democratic and inclusive social institutions did not begin with the media activists of the 21st century. The struggle to democratize the media is decades old and has brought together many activists and social movements at different levels.

213 Just as media infrastructures have developed differently in each nation and region of the world (see section 2), efforts to re-shape and reform the media are varied too. Before the consolidation of the advertising-supported commercial press, radical working class publications in the UK, US and Canada had emerged to challenge the dominant press order of the day (Hackett and Zhao 1998). With the rise of electronic communication, media activists in the US in the 1920s and 1930s demanded public ownership of the telegraph and
non-commercial radio (McChesney 1993; Stein 2009). In Russia and China, communist and nationalist revolutionaries established alternative media systems as part of their attempts to seek social progress through anti-capitalistic and nationalistic struggles; the resulting media structures, however, eventually degenerated into ossified state-controlled systems. Nevertheless, anti-establishment communication forms (underground tabloids and samizdat in the Soviet Union; the big-character posters on China's Democracy Wall) testified to the radical democratic communication impulse of these post-revolutionary societies.

In the 1960s and 1970s, civil rights movements in the US and Canada responded to American media's poor coverage of their struggles for social justice in two ways: demanding more access to the mainstream media; and developing their own media, in the form of alternative, community, radical and citizens' media (Stein 2009). The battle around cable television regulation in these countries was one of the most salient victories of media reform movements, as cable companies are now mandated to establish community and educational channels free of charge (Halleck 2001) [SPI 'Access to basic knowledge']. In Latin America the 1970s and 1980s were characterized by brutal dictatorships that attempted to annihilate dissenting voices. As a response, organized grassroots groups and collectives developed their own underground communication networks and initiated a long battle to pressure states to democratize the media (Rodríguez and Murphy 1997). Meanwhile, in several European countries, pirate radio was the precursor of later struggles for media regulation that guarantees space for public and community media (Jankowski, Prehn and Stappers 1992).

One of the earliest global efforts to democratize the media took place in the late 1970s. In 1976 Amadou Mathar M'Bow, Director of UNESCO, appointed a commission of sixteen experts to examine global communication problems. Chaired by Sean MacBride, the commission gathered data for two years (1977-1979). The commission's final report, which described shocking information inequalities between First and Third World countries, is known as the MacBride Report (UNESCO 1980). The MacBride Report documented high levels of media concentration in a few transnational media corporations mostly located in rich, industrialized countries. According to the report, such concentration had many damaging consequences including highly unequal information flows between rich countries and the poor countries of the South; a lack of diversity among the voices and sources of information and communication; and a flow of media content from the North to the South that threatened local cultures in the latter. The MacBride Report argued that a New World Information and Communication Order (NWICO) was urgently necessary.
Efforts towards a NWICO, including recommendations for national communication policies, de-escalating media concentration, more South-to-South communication channels, and a mass media code of ethics, embroiled UNESCO in a high-profile dispute with the US. The US interpreted some of the report’s recommendations for cultural and communicative sovereignty for post-colonial countries as a threat to ‘freedom of the press’, defined within the liberal framework as freedom from government control. In 1984 the US, the UK and Singapore withdrew from UNESCO, causing a reduction in defunding that would debilitate UNESCO for decades. The failure of NWICO became evident in the 1980s during the Reagan/Thatcher era, which was characterized by deregulation, privatization, and increasing concentration of media infrastructures dominated by the Global North (Zhao and Hackett 2005).

In 2003 the Communication Rights for the Information Society Campaign – the ‘CRIS Campaign’ – emerged as another significant moment of global media reform. At a United Nations-convened World Summit for the Information Society (WSIS) in Geneva, civil society groups from various regions pushed for an understanding of communication as a right and not a commodity. The CRIS Campaign, which still continues, encompasses four pillars of communication rights first, the right to participate in the public sphere, which includes freedom of expression and the press and ‘the conditions to secure plurality and diversity of the media’ (Siochrú 2005); second, the right to knowledge, which refers to a fair governance of knowledge, safeguarding a public domain of information that ‘enables widespread generation of creative knowledge, and maximising the use of such knowledge for the general social good’ (Siochrú 2005); third, civil rights in communication, which ‘include the right to privacy of communication, the right to be aware of, give consent to and correct personal information and data, and the right to freedom from surveillance’ (Siochrú 2005); and fourth, cultural rights to ‘communication that contributes to preserving and renewing cultural diversity and heritage’ (Siochrú 2005).

More recently, in the United States (whose government had so firmly rejected the reforms of the NWICO movement), the new movement around communication rights has transformed into a broader social struggle focussed on media justice. Shifting away from individual and liberal approaches to rights, media justice advocacy calls for attention to the specific ways in which marginalized communities, especially communities of color, experience ‘media injustice’ in the form of inaccurate representations of their communities in news and popular culture, lack of technology access, and minimal levels of media ownership by people of color.
Looking back over the past four decades, we can see that, as communications technologies advance, media activists have, in turn, broadened their political platforms and their struggles to include this important dimension of social progress. As Laura Stein notes: communication policy activism spans the gamut from representational concerns with the end products of communication to the deep-seated political, economic, regulatory, and infrastructural issues that shape the larger cultural environment (Stein 2009: 2-3). Against this broader background, we turn for the rest of this section to recent struggles that specifically target the underlying communications infrastructure of the digital age and its increasingly complex governance.

### 6.2 Transparency and accountability of media infrastructures and mediated data flows

The last decade has seen the emergence of increasing global concern about the transparency and accountability of media infrastructures and the data flows that they carry (SDG 9; SPI 'Access to information and communications'). In some cases, those concerns have prompted popular protests and engendered new forms and sites of resistance. One important category of concern about transparency and accountability relates to the conditions of access to information online. Populations worldwide have begun to pay attention to the effects of private agreements for preferential treatment that, behind the scenes, structure the universe of information they see.

Initially, struggles over preferential treatment took the form of efforts to secure formal enactment of the principle of ‘network neutrality’. Proponents of network neutrality argued that Internet access providers should treat all content, sites, and services equally without discriminating among different sources, services, or providers, while Internet access providers sought greater leeway to experiment with differential quality of service. For the most part, countries around the world have resolved this debate in favour of network neutrality, although European regulations create a preferential exemption for certain specialized, high-bandwidth services.[34] Since there is no reason to believe that unregulated markets by themselves will preserve anything like network neutrality, this issue is likely to remain important for media’s positive contribution to public knowledge.

Formal regulatory adoption of network neutrality mandates, however, has not resolved disputes about preferential access, but has simply shifted the terrain. Worldwide, regulatory implementation of network non-discrimination mandates has often been followed by so-called ‘zero-rating’ initiatives. Zero-rating refers to an arrangement by which an Internet access provider or mobile services...
provider agrees to exempt a particular content service from the data caps otherwise imposed on its users. Such agreements may be made in return for flat payments or in return for access to data about the behaviour of users as they use the zero-rated service. Zero-rating agreements tend to drive traffic toward exempted data services, to the advantage of those providing them, so indirectly challenging the net neutrality principle.

A second important category of transparency and accountability issues relates to targeted removal of online information. Such removal may be mandated or initiated by an information intermediary (for example, a platform company). It may also involve the threatened (or feared) assertion of intellectual property rights, a request for removal or de-indexing in connection with rights afforded under data protection regulation, enforcement of privately-defined acceptable-content policies, or direct state censorship. Because the failure to remove some types of information can itself raise justice issues, targeted removal may sometimes be appropriate. Very often, however, such content filtering mechanisms remain secretive and unaccountable. Concerns about secret and unaccountable content filtering have sparked protests around the world, resulting in a new model of activism that takes digital media simultaneously as a site and target of protest activity. Such activity has achieved political gains, but arguably also accelerated the shift toward corporatized governance (described in section 3.2).

In the US, a protest movement that originated domestically and then spread globally defeated proposed legislation tried to impose content filtering obligations on domain name registrars and payment providers (Herman 2013). Subsequently, however, major US payment providers have acceded to a set of voluntary 'best practices' that involves them more actively in private intellectual property enforcement (Bridy 2015). In Australia, a popular protest movement opposed a government proposal that would have required Internet service providers to perform mandatory content filtering; the government eventually withdrew the proposal after political opposition proved firm, and after the major Australian ISPs voluntarily agreed to block 1400 sites previously identified as child pornography purveyors.[35] In China, where state involvement in filtering and suppression of dissident or otherwise disfavoured expression is more direct, protest movements have taken correspondingly more indirect forms that involve the use of seemingly innocuous code words to discuss forbidden topics (Link and Xiao 2013).

Anti-censorship and ‘Internet freedom’ activists have developed new, crowd-sourced methods of discovering and documenting content removal efforts and actions, producing web sites such as
chillingeffects.org, a US-based site that catalogues copyright takedown notices, and onlinecensorship.org, a project by the Electronic Frontier Foundation that catalogues content removals by social media sites. Some global platform companies, such as Twitter and Google, have begun to disseminate information about various types of targeted removals (e.g., Google’s ‘transparency report’), although they have been much less forthcoming about their own acceptable-content protocols.

A final set of concerns about transparency and accountability relates to processes of automated, algorithmically-processed mediation and filtering. Many dominant market providers – Google and Baidu in search, Facebook in social networking, Twitter in microblogging – use predictive algorithms to structure the universe of information that users see, and network neutrality mandates do not address those practices. Such algorithms operate invisibly to create displays to users that are tailored to what is known or inferred about that user. To individual users, however, the displays may appear universal and neutral. As we noted in section 3.3, there are important, unresolved issues concerning the accountability of such automated filtering.

6.3 New concentrations of power via media infrastructures and mediated data flows

The new concentrations of power exerted via media infrastructures and mediated data flows have themselves generated rising levels of concern, prompting activism by civil society groups and sometimes more widespread protests and struggles (SDG 9).

One important cluster of issues involves proprietary claims to information networks and resources. Even as digital media activists and civil society groups have pushed for greater legal freedom to store, share, and modify content online, law enforcement authorities around the world have pushed to make outlaws of individuals and businesses who facilitate file-sharing. Enforcement has proceeded both via highly-publicized litigation and by off-the-record efforts to seize or block access to Internet domains (McCourt and Burkart 2003; Palmer and Warren 2013; see also Bridy 2015). In addition, as discussed in section 3.2 above, both nation states and powerful corporate actors have sought enhanced intellectual property protection through trade agreements. In Europe, popular opposition to the prospect of stepped-up intellectual property enforcement defeated ratification of the Anti-Counterfeiting Trade Agreement, which had been negotiated with the United States, Japan, and other countries. However, many provisions for enhanced enforcement have appeared in a different agreement, the Trans-Pacific Partnership (which was signed in 2016 but has not entered into
Another set of issues relating to power exerted through today’s fast-changing media infrastructures involves the surveillance conducted by powerful third parties, such as nation-states. In the wake of the revelations by Edward Snowden about the extent of the US National Security Administration’s surveillance of global electronic communications, both ordinary citizens and governments worldwide protested NSA’s lawless and seemingly unconstrained behaviour. The Snowden revelations, however, also showed that national security services in multiple jurisdictions – including some of those now protesting most loudly – cooperated with the NSA and with each other, helping to form a network for evading existing domestic procedures for oversight (Privacy International 2013).

Resistance to those efforts has taken varied forms. Some experts in computer security have formed ventures to develop and market secure ‘black phones’ and online tools, while others have helped activists and civil society groups to explore, understand, and expose the full range of lawful and unlawful government surveillance activity. As described in section 3, some large information companies also have actively resisted the expansion of government surveillance. One country, Iceland, has resolved to develop comprehensive legislation establishing itself as a safe harbour for whistleblowers and investigative journalists.

Civil society organizations and, more recently, frustrated legislators, have put sustained pressure on trade negotiators to make treaty processes more transparent and democratically accountable. New political movements and parties have formed around platforms for access to information and free culture (Beyer 2014), and the free/libre/open source software (FLOSS) movement has worked to foster the development and adoption of open systems that may be freely used and adapted (Coleman 2013; Gamalielsson and Lundell 2014).

A third cluster of struggles involves efforts by privacy activists and researchers to mobilize civil society groups and the public against commercial information power. This struggle needs to be understood within a wider diagnosis of contemporary media infrastructures’ central role in the emergence of a new form of surveillance capitalism, whereby populations worldwide comprise a source of raw materials for new practices of surplus extraction (Cohen 2015; Zuboff 2015).
Disputes over these questions are as widely varied as the contexts and population groups involved. In the US and Europe, commercial surveillance practices have engendered legal struggles over behavioural credit monitoring, drawing attention to the role of predictive profiling in the high-risk lending practices that contributed to the global financial crisis of 2008 (Pasquale 2015). Meanwhile, in an effort to enlist users themselves in both frustrating and exposing the practices of surveillance capitalism, teams of researchers have worked to design new privacy tools, such as ad blockers and tracker visualization tools (Eaglehardt and Narayanan 2016; Kennedy 2016).

In the Global South, struggles over the spread of surveillance capitalism have involved challenges to public-private partnerships for the delivery of services. In India, debates concerning the possible uses of a new national identification number have proved sharply divisive. In 2015, the Indian government launched the Digital India Initiative, which is based on the use of the Aadhar Unique Identity (UID) scheme for biometric authentication of recipients of government benefits and services. The Aadhar scheme, which is the world’s largest biometrics-based database initiative, was developed by corporate technology partners, and critics charge that too little is known about its capabilities and potential future uses (see also the India case study in section 6.3).[40] In Sub-Saharan Africa, questions have been raised about the undisclosed uses of data collected via privately funded mobile telephony and banking initiatives (Hosein and Nyst 2013; Taylor 2015, 2016a).

More generally, in the international development context, attention to data protection questions has highlighted how routine practices of data collection and sharing can put local populations at risk (Taylor 2016b) \((\text{SPI 'Private rights'})\). There is a deep, if rarely noticed, continuity between these recent debates about control of networked information flows and the struggles of \textit{indigenous peoples} against broadcasters for many decades. For example, Australia’s Aboriginal communities have developed protocols that regulate how media makers – both individual media producers and media industries – can proceed on Aboriginal lands and among Aboriginal communities (Janke 1999; West 2014). Any individual producer or media industry intending to operate among Aboriginal communities has to gain clearances from Aboriginal custodians before capturing, disseminating, reproducing, or archiving \textit{data} about the land or the people. By defining a framework of respect, integrity, authenticity, and consultation with Aboriginal authorities and custodians, Aboriginal protocols have sought to ensure media accountability. But no such protocols have yet been developed to govern data flows in the wider development context.
6.3 Case Study: Civil Society Activism in India: Facebook Free Basics

Recent events in India offer an example of the ability of civil society activism to challenge the power of global digital platforms. We will focus here particularly on Facebook’s proposed introduction of its ‘Free Basics’ platform for Internet access, but will situate the struggle over Free Basics in the broader context of other disputes over information rights in India in recent years.

Facebook’s Free Basics platform is a joint private-public partnership ostensibly committed to expanding Internet access for first-time users of the Internet in select countries in Asia, Latin America and Africa. Facebook’s CEO, Mark Zuckerberg, launched the initiative in 2013 (originally branded as Internet.org) in partnership with Samsung, Ericsson, MediaTek, Opera Software, Nokia and Qualcomm. It was based on an ‘app’ that enables smartphone users limited, free access to certain sites and services on the Internet, and that is designed to function on less robust 2G networks, potentially encouraging users to subscribe to mobile access packages (Hemple 2016).

From the Indian government’s perspective, Free Basics represented an opportunity to expand its digital footprint into the daily lives of Indian citizens, by integrating Free Basics within its flagship Digital India initiative (discussed in section 6.2). The Indian PM Narendra Modi’s attempts to use social media including Twitter, Facebook, Youtube, Instagram and other platforms for political purposes are well known (Pal, Chandra and Vydiswaran 2016). In September 2015, he met Mark Zuckerberg in Silicon Valley, California (Mukherjee 2015). For Facebook, signing India to Free Basics would have given Facebook unrivalled access to the members of its second largest market (125 million users). The deal was celebrated on Facebook with both Modi’s and Zuckerberg’s profile pictures wrapped in the green, orange and white of the Indian flag, leading millions of users to update their profiles with the tri-color.

Civil society activists however viewed Free Basics as an attempt by a commercial vendor to tether users to its product and monopolize the terms of access to the wider Internet, so compromising the tenets of network neutrality (discussed in section 6.2). While civil society groups in India had previously advocated specific reforms such as banning software patents and support for free and open source software (FOSS), a new ‘Save The Internet’ campaign mobilized...
millions of users to petition the Telecom Regulatory Authority of India (TRAI) to uphold the broad principle of network neutrality. Facebook was completely caught off guard by the extent of the mobilization of Indian civil society in India against Free Basics.

In February 2016, the TRAI acted to uphold the principle of network neutrality. TRAI’s regulation, titled ‘Prohibition of Discriminatory Tariffs for Data Services Regulation’ provides that ‘no service provider shall offer or charge discriminatory tariffs for data services on the basis of content’. TRAI’s response was surprising given its previous support for industry interests over those of civil society (Abraham 2016). Additionally, while trade bodies such as the Cellular Operators Association of India (COAI) supported ‘differential pricing’, others such as the National Association for Software and Services Companies (NASSCOM) opposed it.

This episode, which illustrates both the potential for cozy, mutually beneficial relationships between global platform companies and nation-state governments and the ability of civil society to challenge such relationships, needs to be put in the broader context of grassroots struggle for information rights in India in recent years (SPI ‘Access to information and communications’). Campaigns spearheaded by individuals such as Aruna Roy and Nikhil Dey and organizations such as the National Campaign for People’s Right to Information led to the Indian government enacting the Right to Information Act in 2005. Such campaigns, along with a variety of social movements for information rights, created a broader recognition of the need for knowledge of entitlements and rights, facilitated access to information, and transparency and accountability in the disbursement of public funds.

This broad Right to Information movement laid the foundations for the subsequent struggles not only against Facebook’s Free Basics initiative but also against the Aadhar Unique Identity (UID) scheme (discussed in section 6.2). A number of the organizations that contested Free Basics including SavetheInternet.in, Free Software Movement of India, Centre for Internet and Society, IT for Change, Software Knowledge Commons, Software Freedom Law Centre also contest the Aadhar initiative. They have consistently highlighted shortfalls in the collection of biometric data, the security and authentication issues that surround a centralized database on citizens, the potential for misuse of private information and for mass surveillance of citizens, and the absence of privacy laws. While the government has defended the scheme as a means to combat benefit fraud and protect national security, critics highlighted successfully the threat to basic freedoms from this expansion of the digital infrastructure.
6.4 Normative implications of media infrastructures and mediated data flows

The developments discussed in this section raise three broad sets of normative implications, which concern autonomy, economic justice, and political self-determination.

First and most basically, new and unaccountable concentrations of power exerted via media infrastructures and mediated data flows have implications for individual autonomy. As media infrastructures become more pervasive in everyday life, they increasingly mediate the human experience of the self, the other, and the world. As they connect individuals and communities, they also structure the universe of information and personalize informational exposure. The dynamics of continual, feedback-driven personalization invest information intermediaries with enormous power over processes of individual self-determination, which in a less intensively mediated world have been much more open-textured and amenable to serendipity (Cohen 2012). Since individual autonomy is a necessary element of any form of social progress, it is essential to consider the implications of such large-scale media-based developments for the ongoing goal of social progress.

Second, as described in section 3.3 above, the emergence of new economic models based on surveillance, social sorting, and predictive profiling has implications for economic justice (SDG 9). The necessary frameworks for protective regulation against such forms of data extraction are incompletely developed and unevenly implemented. Moreover, as privacy activists and civil society organizations worldwide have worked to raise public awareness of surveillance and its threats to privacy, they have struggled against an antiregulatory discourse that aims to defeat protective regulation by linking surveillance tightly with a generalized innovation imperative (Cohen 2016).

Finally, commercial and government practices of surveillance, social sorting, and predictive profiling have profound implications for political self-determination. The basic possibilities for political self-determination are important not just for political processes themselves, but also for wider processes of human development, richly understood (Sen 1999). Yet there is mounting evidence that predictive algorithms can be used to alter user behavior, in ways that implicate values of democratic self-governance and the rule of law. Facebook has publicly acknowledged conducting experiments on how personalization of the content in newsfeeds can affect users’ moods and other experiments reminding users to go to the polls and vote (Grimmelmann 2015). There is no guarantee that future experiments would be disclosed, nor is Facebook subject to ethical
guidelines similar to those that constrain human-subject experimentation in other contexts. Google's chief economist similarly has characterized Google's user base as subjects for experimentation (Varian 2014).

The prospect that large information intermediaries may enjoy wholly unaccountable power to manipulate the flows of social and public knowledge is alarming. More generally, the continuous, immanent, and highly granular regulatory processes by which such privately controlled intermediaries exert power via media infrastructures (and the new discourse of human development through the exploitation of 'big data' which helps legitimate such power) exist in tension with broadly shared commitments to due process and the rule of law (Hildebrandt 2015).

We end this section with an important case where the broad social justice issues raised by the governance of media and communications infrastructures entered the political domain: the civil-society based NETmundial initiative which emerged in Brazil in the wake of the Snowden revelations.

6.5 Case study: Brazil’s Marco Civil on Internet governance

After the Snowden scandal of 2013 that revealed mass electronic surveillance and espionage on a global scale by US intelligence agencies, diverse initiatives to defend the freedom of the Internet emerged from civil society. At the time of writing, the most progressive regulatory framework for the Internet founded on principles of social justice and inclusion is Brazil’s Marco Civil da Internet (Civil Rights Framework for the Internet), an initiative developed jointly by Brazil’s civil society and the government of Dilma Rousseff. Unlike more authoritarian states (China and, Russia) who show greater concern over the implications of the Internet for regime stability than for freedom, and the liberal democracies of the US and the European Union – who fear increased state control but therefore may defer too broadly to private, corporatized governance of media infrastructures – Brazil is broadly supportive of universal free Internet, while being also critical of the international governance structures that guide it (Trinkunas and Wallace 2015: 2).

The challenge of the Marco Civil was to re-think and re-imagine what freedom and citizenship mean when it comes to the Internet. Adopted on April 23, 2014, the Civil Rights Framework is intended as a prototype for Internet regulation globally. The Marco Civil emerged from NETmundial, a conference convened by Brazil’s national Internet steering committee and organized as a multi-stakeholder dialogue between government, industry, and civil society representatives. The framework that became the Marco Civil was
developed through a series of participatory online and offline deliberation processes that invited Brazilian citizens to express their views and shape a legal framework for Internet regulation. It is significant not only as an initiative born from civil society in dialogue with government and private sectors, but also as a proposal emerging from the Global South that is framed by social movements committed to advancing the idea of communication rights. The Marco Civil therefore has the potential to act as a balance to the global power of the United States on Internet governance issues. It joins other regulatory frameworks produced through collaborative efforts by coalitions of multi-stakeholders, such as the Philippines’ Magna Carta for Philippine Internet Freedom (abbreviated as #MCPIF).

The Brazilian Civil Rights Framework for the Internet advances the commitment to respect for civil rights as an important component of Internet regulation and governance. Recognizing the vulnerability of users as the core of the debate, the Marco Civil emphasizes the Internet’s social goals, protects the rights of Internet users, and proposes the adoption of open source technologies that allow free access to information, knowledge and culture. In the eyes of civil society activists (Gutiérrez 2014), the most important achievements of Brazil’s Marco Civil include protection of freedom and privacy, open governance, universal inclusion, cultural diversity, and network neutrality.

The Marco Civil is based on the following five principles:

1. Respect for human rights, including both freedom of expression and individual privacy.
2. Open, multilateral, and democratic governance, carried out with transparency by stimulating collective creativity and the participation of society, governments, and the private sector.
3. Universality that ensures social and human development and the construction of inclusive and non-discriminatory societies.
4. Cultural diversity, without the imposition of any set of beliefs, customs, or values.
5. Neutrality of the network, guided only by technical and ethical criteria, disallowing restriction for political, commercial, religious, or other purposes.

The Marco Civil considers access to the Internet fundamental to democracy, as it is essential for participation in political life and cultural production, and part of the right to education and freedom of expression. It therefore advocates reducing inequalities in access to the Internet and digital technologies and promotes the development of technologies and competencies to use digital platforms effectively. It proposes universal Internet service with controlled rates and sufficient connection speed and also promotes
education on the rights of consumers, ethical consumerism, and protection against misleading advertising and deceptive business methods (Compare, SPI ‘Access to basic knowledge’).

The *Marco Civil* mandates that state institutions and Internet providers should guarantee pluralism and diversity, and it makes these entities responsible for maintaining and protecting the rights of expression and access to information. The *Marco Civil* stipulates that, while Internet providers are free to compete, they are also responsible for guaranteeing freedom of speech, freedom of access to information, net neutrality, and protection of privacy. The *Marco Civil* forbids any type of discrimination based on disability, sexual orientation, or political or religious affiliations. It also provides for the protection of users’ data and reputation and the right to the free development of personality,[42] and guarantees the right to access information and the right to rectification (*SPI ‘Access to information and communications’*).  

The *Marco Civil* states that citizens should be encouraged to move from being mere consumers of information, knowledge, and culture to becoming content creators. The framework calls for the development of appropriate digital tools to facilitate the creation of information, knowledge, and culture by citizens, and states that the Internet should promote the production and circulation of such local content. It therefore is considered a victory for movements that defend the freedom of knowledge (or libre knowledge). Brazil’s free software community was a principal contributor to the *Marco Civil* document (Gutiérrez 2014). As initially proposed, the *Marco Civil* also mandated that all information and content about Brazil should be archived in Brazil, but that restriction was removed following lobbying by transnational Internet corporations. Ultimately, the *Marco Civil* provided that all Brazilian Internet content or content about Brazil is considered ‘Brazilian’ and can be the object of observation. The *Marco Civil* eliminates criminal copyright penalties for content usage by citizens. It however recognizes civil copyright laws that limit access to digital content and hinder collaborative creation, in tension with the goal of an entirely free digital culture.

The Brazilian Civil Rights Framework for the Internet mandates network neutrality (discussed in section 6.2), and prohibits discriminatory action against any type of content or user, either by changing the speed of transmission or restricting content. Network neutrality ensures that all data travels at the same speed and without any restrictions based on the nature of the content or the nature of the user. Brazil’s *Marco Civil* forbids blocking, monitoring, filtering, or analyzing content for commercial, political, moral, religious, or ideological reasons. The principle of network neutrality is here affirmed as essential to promoting a collaborative and democratic
digital culture. Internet providers must save all data related to access, navigation, and content that runs on their networks for a period of six months and must agree not to use it for fraudulent purposes.

The Brazilian Civil Rights Framework states that the Internet should be governed through multi-stakeholder, transparent, collaborative, and democratic mechanisms. The Marco Civil established the Brazilian Internet Manager Committee (CGI.br), a multi-stakeholder regulatory body that includes the active participation of government, business sectors, civil society, and academia.

The Marco Civil was intended to inspire activists and civil society organizations in other countries to demand similar laws (Gutierrez 2014). Relative to other Internet public policy regimes worldwide, it ‘provides an attractive alternative that advances a global Internet that promotes freedom, inclusion, and diversity’ (Trinkunas and Wallace 2015: 37). Global platform companies opposed many of its provisions and defeated some. Notwithstanding its important potential, it remains too early to determine whether the Marco Civil will be able to counter the dominance of global for-profit giants such as Facebook in favor of open source companies and locally-produced content, or to dilute the power of corporatized governance more generally.

7. Struggles for social justice through media

We come in this final main section of the chapter to consider the role that media and communications play in struggles for social justice and those struggles’ overall contribution to social progress. The transformation of media infrastructures in the final decades of the 20th century gave rise to complex communication ecologies where divergent worldviews and political interests draw on a multitude of media resources in their struggles for social justice.

7.1 Appropriating the Digital

Individuals and communities around the world have learned to appropriate media, and, especially digital communications infrastructures. The 20th century ended with some paradigmatic cases of media appropriation for social justice, most notable of which was the emergence of the Zapatistas in Mexico.
In 1994, as Mexico was preparing to sign the North American Free Trade Agreement (NAFTA) with the US and Canada, the Ejército Zapatista de Liberación Nacional (EZLN) (Zapatista Army of National Liberation), an indigenous guerrilla organization, abruptly came to national attention. Three thousand EZLN combatants seized several towns in the region of Chiapas and demanded land, work, food, housing, education, independence, freedom, justice, and peace for Mexico’s indigenous communities. Afraid that a ‘third world guerrilla’ could taint its image as a ‘first world country’, the Mexican government attempted to annihilate the EZLN before news of the group reached the global public sphere. The EZLN’s resistance, and especially their use of media, became a model for media appropriation by social justice movements.

The EZLN’s response to military force was to become a pivotal moment in the way social movements use communication and media. Using diverse media technologies and strategies, the Zapatistas soon activated a strong communication network that linked Mexican indigenous communities with social justice activists worldwide. Stories proliferate about the long journeys of Zapatista videos recorded on VHS tapes and carried out of the Lacandon jungle to the nearest urban centers and then on to Mexico City, where US activists picked them up and brought them to Austin, Texas to be digitized and uploaded on the precarious computer listservs of the time. Subcomandante Marcos, the main spokesperson of the Zapatistas at the time, is famous for his statements that link the local struggles of marginalized Mexican indigenous communities with other social justice struggles (Rodríguez, Kidd and Stein 2010). One of the most quoted statements by Marcos, made public in May 1994, reads:

Marcos is a gay person in San Francisco, a black person in South Africa, an asian person in Europe, a chicano in San Isidro, an anarchist in Spain, a Palestinian in Israel, an indigenous person in the streets of San Cristóbal, a gang-member in Neza, a rocker in the Ex-Soviet Union, a Jew in Germany, [...], a feminist in a political party, a communist in the post-Cold War period, a prisoner in Cintalapa, a pacifist in Bosnia, a Mapuche in the Andes, [...] an artist without a gallery or a portfolio, a housewife in any neighborhood in any city in any part of Mexico on a Saturday night, a guerilla in Mexico at the end of the twentieth century, a worker of the CTM on strike, a sexist in the feminist movement, a lone woman in a Metro station at 10 pm, a retired person standing around in el Zócalo, a peasant without land, an underground editor, an unemployed worker, a non-conformist student, a dissident against neoliberalism, a writer without books or readers, and a Zapatista in southeastern Mexico. In other words, Marcos is a human being in this world. Marcos is every untolerated, oppressed, exploited minority that is resisting and saying, 'Enough
already!' He is every minority who is now beginning to speak and every majority that must shut up and listen (Subcomandante Marcos 1994).

Zapatista videos, audio recordings, and texts, translated into multiple languages and disseminated via then-emerging digital platforms, reached social justice collectives and individuals worldwide.

The result was first, a massive expression of international solidarity with the Zapatistas erupted in the global public sphere, sending a clear message to the Mexican government and its army that the whole world was watching and monitoring human rights abuses against indigenous communities in southern Mexico. The EZLN only avoided being brutally squashed by the Mexican army because of this skilled use of political communication triggered such strong international solidarity (Pianta and Marchetti 2007). Second, social justice activists worldwide adopted Zapatista language, goals, and communication strategies. Soon, ‘Zapatismo’ became a global approach to social justice activism, based in a radicalized understanding of democracy centered on ‘participation and deliberation, collective autonomy, and decentralized power structures’ (Ferron 2012: 157), and a critique of neoliberal economic policies that increase inequity. Marcos’ manifesto for the ‘construction of a world where many worlds fit’ (EZLN 1996) emphasizes the link between social justice, issues of voice and diversity in public spheres, and the need for inclusive media infrastructures.

International ‘Zapatismo’ first emerged in the global public sphere in December 1999 when a wide coalition of protesters met in Seattle to disrupt a World Trade Organization (WTO) summit. Questioning neoliberal economic policies and the secrecy of free trade negotiations, a broad coalition of protesters and activists succeeded in blocking the summit. Because the Seattle protests started originated a series of demonstrations against the dominant model of neoliberal globalization, the movement is sometimes labelled the ‘anti-globalization movement’. The activists themselves, however, were quick to refuse that label, as they were not opposed to globalization, but to economic models that spread inequity worldwide.

Learning from the EZLN’s insistence on producing their own media rather than allowing mainstream media to shape the narrative about their actions, the Seattle protest organizers set up the first Independent Media Center (Indymedia) and encouraged protesters to become journalists and produce their own coverage of the protests. The first Indymedia center was a rental house in downtown Seattle, where protesters could edit and upload their own coverage.
of the anti-summit protests. Indymedia's web page incorporated Open Publishing software made available by media activist Matthew Arnison from Sydney's Community Activist Technology group (Arnison 2001; Kidd 2004). In later years the Indymedia model was replicated in hundreds of cities throughout the world by social justice activists. With the motto 'Don't hate the media, be the media', Indymedia centers were the precursor to the complex ways in which today's social movements have learned to appropriate digital platforms and develop autonomous and decentralized communication strategies. Contemporary social movement communication and media use did not begin with Facebook and Twitter; it started in places like the Lacandon jungle and Seattle, with smart media activists who decided to appropriate, redesign, and hybridize media technologies to meet their information and communication needs (Rodríguez 2001; forthcoming).

7.2 Affordances and constraints: From the mobile phone to social media and beyond

The example of the Zapatistas put digital appropriations by social justice movements firmly on the agenda. Today, numerous 'networks of outrage and hope' (Castells 2012) connect diverse communities, social struggles and publics across the world (Routledge and Cumbers 2009). In the first two decades of the 21st century, overlapping waves of appropriation, engagement, and use of digital media technologies have provided alternative spaces and platforms to support solidarity and dialogue in and about repressive conditions. We can approach this important theme via the idea of 'affordances': that is, the new possibilities that media technologies open up to a range of actors involved in struggles for social progress.

In January 2001, the relatively new technology of mobile phone text messaging was involved in bringing down Philippines President Joseph Estrada (the so-called 'EDSA II revolution'). Use of the still nascent mobile phone technology was until then in the hands of the elites, while social movement organizers relied on radio and press (Pertierra et al. 2002; Qiu 2008; Rafael 2003). EDSA II was the first well-known case in which SMS texting allowed activists to build a strong network. Following the 'coup d'texte' against Estrada, we find many other instances of mobile-supported solidarity and struggle.

With the introduction of pre-paid accounts, low-cost handsets and relatively easy connectivity, mobile phone usage has spread across all social groups, including poor and marginalized populations. Despite stark inequalities in access, use, literacy, and resources (Donner 2015; Qiu 2014), a vibrant body of social innovation, communal use, cultural adaptation, and activism with mobiles has emerged.
One of the earliest places where this became evident was Africa, where mobiles are used for sharing information on health (SDG 3), ‘witnessing’ human rights violations (through the incorporation of cameras into mobile phones), and citizen journalism, including election monitoring (Ekine 2010). An instructive case is Ushahidi (meaning ‘testimony’ in Swahili), a mobile-based platform developed to share information and create maps to report on post-election violence in Kenya in 2008. In the South African elections of 2009, different kinds of mobile software were used, combining instant messaging and chat functions, to enhance communication among political groups and their supporters (SDG 10).

But the implications of information and communications technologies for achieving social justice and democracy are often ambiguous, given very unequal patterns of access and use. In the early 2000s two post-apartheid South African social movements, the Treatment Action Campaign (TAC) and the Anti-Privatization Forum (APF), used websites and email to disseminate information, while mobile phone use was limited to communications within organizations. Moreover, the use of smartphones to communicate election messaging does not necessarily transform the mainstream public sphere overall or citizens’ opportunities within it (Walton and Donner 2009). The use of different media for different functions may channel politics and related activity into particular domains (policy discussion by experts, for instance), rather than broadly-based public spheres (Wasserman 2007).

Another important affordance of ICTs for social justice struggles is the ease with which they enable textual commentary, protest, and dissent (SDG 16). Building on the early history of dial-up Bulletin Board Systems (BBS) from the late 1980s to late 1990s (Goggin and McLelland 2016), the growth of the World Wide Web in the 1990s saw the emergence of blogs as a flexible and powerful architecture of connection and commentary (Bruns and Jacobs 2006). In many countries, blogs and the new public sphere termed the ‘blogosphere’ enabled writers and activists, audiences and publics to engage and connect. Although this first attracted attention in the US, it quickly became influential among social movements elsewhere, for example in the Middle East, especially Egypt (el-Nawaway and Khamis 2015) and Iran (Sreberny and Khiabany 2010). Blogospheres provide a way for religious, cultural, political, and linguistic communities to connect across territorial boundaries around religion (the various Muslim blogospheres: Russell and Echchaibi 2009), gender rights (Guta and Karolak 2015), health issues, and diasporic and sexual identities.

Meanwhile debate continues about the role of social media platforms in creating new forms of solidarity and dialogue. Facebook has been associated with various social and political movements, especially
the ‘Arab Spring’ uprisings of 2011. Meanwhile, Twitter - relatively simple in its design, and without the cross-media integration of Facebook - has nonetheless helped incubate various initiatives based on ‘hashtag publics’ (Weller et al. 2013). Twitter has proven a fast and formidable tool across many settings. In Iran's 2009 election, after authorities manipulated elections and forced reformist candidates into home confinement, protestors swarmed the streets of Tehran and used social media, particularly Twitter, to communicate their struggle through powerful imagery such as the photograph of murdered protester Neda Agha-Soltan lying on a Tehran street (Mottahedeh 2015). Twitter has been key in the anti-racist movement centred on the hashtag #BlackLivesMatter, that responded to the killings of Black people by police and vigilantes in Ferguson, Missouri, USA. Twitter also played an important role in the #RhodesMustFall protests in South Africa, that grew from a campaign against the statue of Cecil Rhodes at University of Cape Town in March 2015 into a national and international movement for decolonization generally. In Asian countries, mobile chat and sharing platforms, such as WeChat, claim some 650 million monthly users in 2016, and are increasingly a platform for protest and dissent, both in China and among the Chinese-speaking diaspora internationally (Xie 2016). Yet there are dangers in exaggerating the role played by social media platforms, and ignoring the more complex determinants of the social processes that flow through and around them (Couldry 2014).

Lastly, the affordances of mobile technologies and social networking platforms enable new kinds of everyday, intimate solidarity and dialogue. Notable cases of appropriation of mobile phones, Internet, and social media have emerged among migrants and their dispersed family, cultural, and political networks (Fortunati, Pertierra, and Vincent 2012). Among Filipino workers and other domestic workers (generally women) who spend years away from their families and communities, mobile phones and social media provide a way to maintain bonds and connection with friends and families (Madianou and Miller 2012). Chinese migrants who leave rural areas to find work in cities (Chu et al. 2012) rely on mobile phones to create a new ‘modern’ identity, spanning urban and rural settings (Wallis 2013). Outside the context of migration, diverse communities use mobile phones to redraw the boundaries between the private and personal and create ‘intimate publics’ (Hjorth, King and Kataoka 2014) for example to mourn or grieve (Cann 2014; Cuminsky and Hjorth 2016). In the wake of the earthquake and tsunami disaster of March 11, 2011 social media and mobile phones provided new channels for witnessing solidarity and the implementation of disaster responses that extended earlier media practices in Japan and beyond (Hjorth and Kim 2011).
While the affordance of newly emerging media technologies must be carefully analyzed (section 7.2), older media technologies do not, generally, disappear: they remain available to be ‘remediated’ (Bolter and Grusin 2001) in ever new combinations of media. In reviewing the broader landscape of media uses for social justice, we need to consider therefore how a variety of media ecologies have proved important in the contexts of different struggles across the world. In section 7.4 we develop this point with particular reference to struggles for social progress against injustices relating to disability.

Contemporary protest movements generally draw on an ‘enlarged media ecology’ (Qiu 2008) of old and new media, where traditional communication channels are mixed innovatively with new digital tools of activism. Harbingers of this transformation include the fusion between Catholic radio and SMS in the EDSA II movement in the Philippines, and the interaction between citizen journalism website OhmyNews and the Nosamo activists network during the South Korean presidential election of 2002 (Qiu 2008). The interplay among traditional and digital media reached new heights as the Arab uprisings of 2010 and 2011 spawned a vibrant scene of dissident media and culture. Revolutionary graffiti, dance, theatre, puppetry, murals, hip-hop, and poetry, exploded throughout the Arab region, and within months moved from the street to the screen and to art galleries (Kraidy 2016).

Such new media ecologies also include convergences between mainstream (including Western-sourced) media and militant media. In the Arab world, for example, Westernized popular culture like reality TV and music videos has generated new modes of activism, by both rightwing and leftwing actors, over media content. Video has been prominent among all the media cultures that emerged after the 2010–2011 Arab uprisings. In Bahrain, Syria, and Tunisia digital videos bore witness to atrocities, mocked dictators, and showcased a variety of animation, dance, theatre and song. The production by collectives of satirical videos has interfaced with mainstream media industries, infusing them with new, young talent, while the rise of political stand-up comedy to mainstream success was also a hallmark of the uprising (Kraidy 2016). By appropriating media technologies and producing their own content, people convey feelings of dispossession, anger, and sadness as well as counter-hegemonic discourses of humor, hope, satire, and innovative resistance (Yang 2009). The creative resistance of artists and activists and their use of media, often produced and disseminated under extremely risky conditions, is an important form of ‘creative insurgency’ (Kraidy 2016).
News reporting, community media, and the latest social media are indispensable for indigenous movements and the protection of rural resources in order to end hunger, achieve food security, and promote inclusive societies for sustainable development. Key struggles in this category include the Idle No More movement in Canada and indigenous activism in Australia using Twitter and crowd sourcing (Dreher 2010). Land grabs have intensified since the 2008 global economic crisis in the Global South, triggering resistance by rural villagers such as those in Wukan Village of South China, who put mass media and social media to creative use (Lagerkvist 2012).

Media-based activism for gender equality and the empowerment of all women and girls is also growing worldwide. Through creative media strategies, advocacy groups have from the 1990s onwards made remarkable progress in the realm of gender equality from universal suffrage for women to rights for sexual minorities. Multiple media-based struggles against gender-based violence continue, for example, against violence on maquila women in Mexico, female genital mutilation in Africa, sexual violence in US university campuses, female infanticides in China, sexual abuse inside the US army, and ‘honor killings’ in South Asia. Media exposure has added greatly to activist attempts to stop such inhumane treatments of women, girls, and members of sexual minorities.

Labor struggles around the world have adopted the Internet and especially the mobile phone, alongside traditional media, for purposes of mobilization, coordination, and solidarity. The Marikana mine workers in South Africa (Walton 2014) and the El-Mahalla textile workers in Egypt are among the most notable examples. Following a long tradition of struggle for survival and solidarity (Zhao 2008), Chinese workers have since 2004 deployed blogs, online forums, Internet videos, and social media on the picket line in thousands of strikes targeting factory management (Qiu 2016; see also section 5.4).

Corruption undermines efforts to provide access to justice for all and to build effective, accountable, and inclusive institutions at all levels (undermining SDG 16). Yet anti-corruption campaigning would be impossible if the media (both traditional and social media) were silent. Without investigative journalists, many of the world’s corruption scandals would have never been exposed. Media facilitates transparency in government, corporations, and religious organizations, forcing powerful figures to become accountable to the public. One of the largest civil society campaigns in recent years is the 2011 Indian anti-corruption movement triggered by Anna Hazare’s hunger strike in New Delhi. There is also widespread discussion of official corruption on Weibo, the Chinese microblogging service, where media professionals have played an
important role in influencing public opinion online (Nip and Fu 2016). The most dramatic example of using the Internet as an infrastructure of connection to challenge not just corruption, but state and corporate power more generally is the work of the activist group Anonymous with its ‘denial of service’ and other attacks (Coleman 2014) and the whistleblower platform Wikileaks (Brevini, Hintz and McCurdy 2013).

While the Internet itself may enable the circulation of hate speech and bigotry of all kinds, it has also enabled resistance against fundamentalism on the ground. Consider the struggle against ISIS in the Syrian city of Raqqa, its self-declared capital. Here, activists have been running clandestine festivals of short films, shot on mobile phones, defying local political censorship and moral prohibitions. Most prominently, the group ‘Raqqa is Being Slaughtered Silently’ has documented the atrocities of daily life under the Islamic State, propagating these on social media and connecting with mainstream journalists worldwide.

A significant new direction in media activism is as a space for political agency outside the sectarianism that in heavily polarized societies dominates mainstream media and politics. In Lebanon, for example, where traditional political debate tends to trigger sectarian ideologies, activists mobilize the community around issues of environmental justice and the provision of services and utilities. The ‘You Stink’ Movement in Lebanon is a key example of this trend. During the summer of 2015, a garbage management crisis emerged in Beirut after Lebanon’s main landfill site was shut down, and piles of trash grew bigger on the streets, triggering a wave of protest. Labelled ‘You Stink’, an activist movement emerged, led by seasoned activists who used social media and various forms of mediated protest. This was the latest in a series of short-term movements that have claimed a secular-progressive mantle where politics is nearly always sectarian (Kraidy 2016). You Stink used media resources to depict an alternative body politic, pitting citizens against a corrupt elite. By framing the garbage crisis in public discourse through media, activists wrested it from the authorities’ hands and opened it up to public scrutiny and deliberation.

Yet care is needed to contextualize the role of digital platforms in social movements (Iskander and Haddad 2013 on Facebook in Egypt; more generally, Uldam and Vestergaard 2015). Digital technologies and social media platforms rarely drive political actions and protest in themselves. As noted at the start of the section, social movements’ communication strategies may involve not only digital technologies but also a wide range of non-digital media (leaflets, magazines, audiocassettes, radio, portable video recorders, photocopiers, printers, graffiti, song, dance, street theatre). In the
2013-2016 Gezi Square protests in Turkey, solidarity was built through a mix of media that combined photocopied zines and street performance with content shared via social media platforms (Saybaşılı 2014). Moreover the infrastructure of social media and digital platforms remains tightly controlled by their corporate owners and managers (Andrejevic 2013). Affordances that are key to a new mode of mediated solidarity – for example the hashtag function in Twitter – can be changed overnight by the parent corporation without consultation or participation of users. It remains very difficult for general users, let alone activists, to have systematic input into the design and governance of commercial social media platforms (Mansell 2012), except via the narrow channel of user data and market research. Meanwhile, social movements and social justice activists have learned to their cost that the potential of digital platforms to enhance their communication capabilities goes hand in hand with corporate, government, and military surveillance of their actions (Treré 2015).

The broad potential of digital activism must also be evaluated against the continued reality of uneven access to media infrastructures (section 2.2). More than 55% of the world’s population do not have access to the Internet; and 79% of the population in the world’s 50 least developed countries do not have electricity (Gronewold 2009). Against the background of such inequality, repressive states are keen precisely to restrict access. State repression has contributed to lack of media access in countries such as North Korea, and has done so intermittently in others, for example in Egypt or during the Egyptian uprising, when the Mubarak regime cut off the country’s Internet connection (Cohen 2011), or in China, after the Urumqi ethnic conflicts in July 2009 when there was an Internet and mobile phone blackout in Xinjiang (Cao 2014).

In conclusion, all social justice and social progress initiatives depend on complex media ecologies that offer resources while simultaneously imposing risks and constraints. It is activist individuals and communities, not technologies, that drive social progress. Each social justice context triggers specific communication and information needs, and activists will re-design and merge technologies to address these always-changing needs.

That said, and as already emphasized in section 6, work toward more just media infrastructures needs a central place in social progress initiatives. The Sustainable Development Goals and social progress in general are contingent on accessible, affordable, and inclusive media infrastructures – including traditional media, digital platforms, social media, and the Internet. Any intervention that works toward social progress must also consider the need for a parallel struggle to democratize media infrastructures and demand better, more
transparent media policies and governance. These technologies' potential to shape more sustainable, just, and inclusive societies will be hampered so long as decisions about the design and governance of media infrastructures are made without the wider body of citizens having the opportunity to be consulted on their needs.

7.4. Creative affordances: The case of disability movements

An excellent case study of the role that the new affordances of digital media technology can play is disability. According to the landmark WHO 2011 World Report on Disability (http://www.who.int/disabilities/world_report/2011/en/), more than one billion people in the world experience disability (15% of world’s population), of whom 110-190 million experience very significant disabilities (SDG 3).

Disability has strong social, political, cultural, and economic determinants, registered in the paradigm shift from the reigning ‘charity’ or ‘deficit’ models of disability to a ‘social model’ of the conditions and contexts of disability. Disability is diverse and dynamic, and understood differently across cultures and languages. Disability involves a wide range of impairment types from sensory disabilities (blindness and vision impairments; deafness and hearing impairments; physical, mobility, and dexterity impairments) to cognitive disabilities, and psycho-social, chronic, and episodic conditions. Disability interacts with other dynamics (race, class, gender, sexuality, rurality, age, health). Prevalence of disability is growing due to population ageing and global increase in chronic health conditions. In particular countries, disability is affected by war, violence, disasters, bad diet, accidents, and poor workplace safety (SDG 8). Disability is highly correlated with disadvantage but not ‘all people with disabilities are equally disadvantaged’ (WHO 2011).

Disability is a cross-cutting, international social concern, which also has strong media and cultural dimensions. A roadmap for putting disability at the heart of the vision for social progress was proposed in 2006 by the UN Convention on Rights of Persons with Disabilities (CRPD). The CRPD has many provisions which involve communication and technology rights, since media is pivotal for achieving human rights in relation to disability. People with disabilities generally experience inferior access to and affordability of media infrastructures, technologies, content, and participation, especially in the Global South. At the same time, disability becomes a paradigm case for rethinking both media and media’s potential contribution to social progress. Disability is a key part of wider understandings of cultural and media diversity, but is of particular interest because of disability struggles’ strong focus on digital technologies and their affordances.
Since the 1970s, the role of media in communicating negative attitudes, stereotypes and myths about disability has been critiqued, commencing with the role of advertising in ‘charity’ discourses of disability. From the early 2000s, there has been a rise of affirmative images of disability, often associated with the rising mainstream appeal of the Paralympics. An example was the Paralympics sportstar Oscar Pistorius, before the demise of his reputation. Similarly, a range of media representations of people with disabilities are now available. Although still very much in the minority, people with disabilities appear as characters of TV shows, increasingly reported in news, or, on occasion, as media workers, broadcasters, journalists, and celebrities themselves. However there remains a hierarchy of what is newsworthy, entertaining, and shareable, even in digital platforms. While some areas have pioneered inclusive practice, mainstream media industries generally lag behind in offering work opportunities to people with disabilities (SDG 8). Disability still occupies a marginal place on media professionals’ agendas; in contrast with other social justice issues such as gender, disability is still rarely discussed in the public spheres of mainstream media.

In various countries, people with disabilities and their allies are using digital platforms in distinctive ways: for example, US Deaf protests in the Gaudallet ‘Deaf President’ campaign; the use of video, photography, and social media by Bolivian disability activists in March 2016 to demand better social support (Goggin 2016); and British disability movement protests from 2012 against welfare cuts, using blogs, Facebook and Twitter. Through social media, blogs, and websites a wide variety of disability publics have emerged. People with disabilities have also developed their own disability media: dedicated blogs (Ouch! established by BBC in UK), disability comedy-chatshow news genres (The Last Leg, Channel 4 in Britain), disability web-based programs (Gimpgirl), and crowd-funding platforms used to fund investigative journalism or entertainment.

Issues of accessibility to media infrastructures, as well as the potential affordances of these platforms, are particularly salient for people with disabilities, for example, captioning on TV and radio for the print handicapped. Despite their long histories, disability media such as Braille formats and sign language communication are still given little recognition in wider society, although there have been concerted international efforts on some aspects of digital technology (accessible computers and software, web accessibility, mobile phone accessibility, ‘apps’ for people with disabilities).

Yet even in areas with the most concentrated effort, such as web accessibility, the situation remains parlous: most government websites across the world have low levels of accessibility compliance, despite ‘digital first’ government service, welfare, and e-government
policies. The implementation of the CRPD requires widespread accessibility, especially across design of digital technologies, but national legislatures and media corporations have been slow to act.

The lack of social progress on disability and media is a central issue for wider social progress. It constrains the possibilities for social and cultural participation of people with disabilities (*SPI ‘Health and wellness’*). Yet disability has much to teach us about how communication occurs across the world’s population: communication among, with and by people with disabilities foregrounds issues of voice (Couldry 2010) and listening (MacNamara 2015): people with disabilities need access to public spheres where we can all listen not least governments, corporations, civil society, and a wide range of other organizations and agents (Goggin 2009). Without that the much-vaunted promises of new digital technologies are hollow.

8. Summary and recommendations

8.1 This chapter’s survey of media and communications’ potential contribution to social progress does not have a straightforwardly positive conclusion. Media, for sure, are an important resource for movements that promote social progress, and effective access to media is a necessary component of social justice (and a too-little recognized component of social progress itself). By ‘effective access’ we mean that all individuals and communities should be able to use media infrastructures to produce content, access information and knowledge, and be active participants in the realms of politics, culture, and governance.

8.2 Three major factors complicate the picture considerably. *First*, the distribution of media resources (including traditional media and digital platforms) is skewed towards the rich and powerful, and away from the majority of the world’s population, especially poor, marginalized, and excluded groups. This basic fact is ignored by the recurrent ‘social imaginary’ (Taylor 2004) that sees media infrastructures as automatically progressive and socially transformative (for critique, see Herman, Hadlaw and Swiss 2014; Mansell 2012; Mosco 2004). Although people rely on media platforms for connection and communication, they generally have very little influence over their design and pricing, or the conditions of access, use, or content production and distribution. *Second*, there is not one single space of connection enabled by media, but many such
spaces, and the relations between them are highly uneven: questions of language and culture, unequal influence over Internet governance, software localization and technical design, all make the Internet, in particular, a highly uneven playing field for diverse groups, especially cultural and linguistic minorities. Third, even with access and more even distribution of opportunities for effective use, it may not be solidarity and dialogue that are facilitated when people come together via media (online abuse is also on the rise): the Internet’s capacity, in principle, to enable multiple producers of content is not therefore sufficient. A central issue remains how to design and sustain online spaces that encourage dialogue, free speech, respectful cultural exchange and action for social progress. The governance of Internet infrastructures is crucial in all of this, but itself highly contested and uneven.

8.3 In response to these challenges, we propose first that effective media access should be recognized as a new core component of social progress, and comprised of the following elements:

8.3.1 While it is important that the SPI under ‘foundations of wellbeing’ includes ‘access to information and communications’ (defined in terms of numbers of internet users, mobile phone subscriptions, and a Press Freedom Index), this is insufficient: additional measures are needed for the distribution of opportunities for effective access and use. Such measures would concern not only access to the technological means to receive information and content, but also to appropriate pertinent and affordable technologies. The design of media infrastructures and digital platforms needs to be pertinent to diverse language communities, individuals with different ability levels, learning styles, and financial resources.

8.3.2 While it is important that the SPI under ‘Opportunity’ includes ‘personal rights’ and ‘tolerance and exclusion’, this is insufficient: communication rights must be added to the basket of personal rights, and account must be taken of the direct relation between lack of participation and diversity in the design and governance of media infrastructures and lack of tolerance and inclusion at a cultural level.

8.3.3 The right to privacy should also be added, including appropriate regulatory frameworks to protect against surveillance and data extraction.

8.3.4 In addition, references to ‘tolerance’ elsewhere in the Social Progress Index need to be interpreted to include tolerance in the media (that is, the absence of hate speech against homosexuals, women and girls, ethnic minorities, etc.)
8.4 In addition, we propose the following:

8.4.1. Media and communications infrastructures should be regarded as a common good, in the same way as other infrastructures (roads, railways, etc.). The recent wave of privatisation and concentration in the media and information industries should be reviewed by regulators for its effects on the quality of media, its diversity, and its ability to meet people's needs. The encouragement of subsidy and spaces for non-profit media should become an essential component of struggles for social progress and social justice. If progress is to be made towards these wider goals, major efforts are needed by civil society, governments and international organizations to promote and sustain media that exist outside of market forces.

8.4.2. Internet governance should not be in the hands of organizations who make decisions, implement policy and design online architectures behind closed doors. Popular participation and transparency should be the guiding principles that frame Internet governance, policy, and regulatory frameworks.

8.4.3. Equally, processes for the design of digital platforms and other means of accessing the Internet should recognize and effectively include representation from the full range of human communities.

8.4.4. Media infrastructures will not realize their potential for contributing to social progress unless they operate effectively to facilitate the content creation by diverse communities. Access to media infrastructures as consumers, receivers or audiences of content and information is not enough; individuals and communities need access as content creators; issues of language, affordability, user competencies, and technology design are fundamental.

8.4.5. Since we can expect that core aspects of society such as health care, social services and financial services will be increasingly provided over the Internet in the future, access to digital systems needs to be equally distributed among populations, and such access should come free of commercial tracking and surveillance.

8.4.6. The risks that the data infrastructures underlying today's media and communications infrastructures will be used for increased state and corporate surveillance, censorship and data gathering need to become the focus of extensive civic debate and regulatory attention.

8.4.7. Although social media and digital platforms have accelerated access to information, sound, independent journalism and especially investigative journalism is essential to democratic life. Citizens need curated, credible, verified, and contextualized information to be able to make reasonable decisions in political, cultural, and social arenas.
Alternative forms of funding investigative journalism need to compensate for the threat to the commercial newspaper business model.

8.4.8. Serious attention is needed also to the impact on environmental sustainability of the waste generated by today’s communication devices and the vast data-processing infrastructure that supports their use. This point has not emerged earlier in this chapter, but it is an unintended long-term side-effect of intensified connection through media (Maxwell and Miller 2012).

8.5. The indispensable first step towards media that contribute to social progress is to see media and communications flows and infrastructures not as mere background to social struggles, but as themselves a *site of struggle*. This, in turn, requires acknowledging the overall *lack* of progress in media reform over the past forty years. Since 1980 when the NWICO’s MacBride Report was presented by UNESCO, numerous initiatives have attempted to reform media infrastructures, including the World Summit of the Information Society (WSIS), the Free Press movement in the US, and the net neutrality and free software international movements. However international organizations have not generally pursued such concerns. The international organizations responsible for proposing media policy (International Telecommunication Union (ITU); the Internet Corporation for Assigned Names and Numbers (ICANN)) have limited their scope to technical matters discussed with little input from civil society or social movements. A renewed and more inclusive debate on media reform must be launched.

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**Action plan**

1. To add effective media access as a new core component of social progress in the SPI, to ‘ensure affordable, reliable, sustainable and effective access to communication infrastructure’, while acknowledging the long-term environmental waste from IT devices and data processing infrastructures.

2. To open a public discussion in which matters of inclusion, affordability, and diversity in media take center stage over markets and profit.

3. To position communication rights as central to official definitions of Social Progress. Communication rights include
the right to be a content creator; the right to free expression; the right to knowledge and information; and the right to privacy.

4. To pressure international and national regulatory bodies and policy-makers to design and implement processes for civil society participation in Internet and media infrastructures governance and policy. Media infrastructures should be governed by multistakeholder, transparent and open bodies.

5. To pressure governments, the private sector, and universities to be accountable for designing media platforms that are accessible to input from diverse individuals and communities – especially marginalized communities such as communities of color, gender minorities, LGBTQ communities, disabled communities, and communities in the Global South.

6. To push for media and Internet regulation that protects users from state and/or corporate surveillance and data extraction for control or marketing purposes.

7. To promote media and Internet regulatory regimes that forbid any type of censorship or discrimination based on disability, gender, sexual orientation, or political, religious, or ethnic affiliations.

8. To promote the notion that ‘access’ also includes opportunities for content creation and not the mere technological access to platforms for media consumption. Media and information literacy, technical competencies, linguistic diversity, and capacity building are fundamental elements of access.

9. To re-establish independent, sound journalism as an essential element of democracy.

10. To promote free access to software and free knowledge, as the commons of humankind.

Toolkit[44]
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<tr>
<th>Effective access to communication infrastructures</th>
<th>Develop regulatory regimes that guarantee affordability, cultural inclusion and linguistic diversity of media and digital platforms.</th>
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<td>Promote the notion that ‘Effective access to media infrastructures’ includes using technologies to create and disseminate content.</td>
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<td>Monitor media and digital content for diversity, inclusivity and access. Sanction corporate media and technology corporations if they fail to comply.</td>
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<td>Develop regulation that allocates a significant proportion of communication resources (frequencies, budgets, R&amp;D) to citizens’ media initiatives.</td>
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<td>Promote tolerant, inclusive, and diverse media and digital content.</td>
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<td>Design media and digital platforms that can be used by citizens to produce and disseminate their own content.</td>
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<td>Adopt net neutrality.</td>
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<th>Transparency and accountability of media and digital platforms</th>
<th>Incorporate transparency and accountability in global and national legislation on media and Internet.</th>
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<td>Organize multistakeholder international and regional forums to discuss the future of media and digital platforms.</td>
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<td>Help subsidize non-profit media and digital platforms.</td>
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<td>Mobilize civil society to participate in global and local discussion about the future of media and digital platforms.</td>
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<td>Measure net neutrality.</td>
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<th>Transparency and accountability of media and digital platforms</th>
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<td>Measure net neutrality.</td>
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</table>
**Communication Rights:**

- *right to be a content creator*
- *right to free expression*
- *right to knowledge and information*
- *right to privacy*

- Include communication rights as a fundamental human right in national legislations
- Develop the necessary regulatory frameworks for the implementation, regulation and vigilance of communication rights

- Include communication rights in SDGs, SPI, and any other similar global blueprint to assess progress, wellbeing, and sustainable development
- Advocate policies, regulations, and treaties that advance communication rights
- Produce and disseminate content that informs audiences about communication rights

**Participatory governance of media infrastructures and digital platforms**

- Design media and digital platforms regulatory regimes that include civil society participation, and in particular participation by representatives of Indigenous people and people with disabilities

- Establish a global international body responsible for monitoring and assessing access, inclusion, diversity and communication rights in media infrastructures
- Promote the notion that civil society input is essential in the governance of media and digital platforms
- Implement educational programs for citizens about media and Internet regulation and governance

- Include civil society participation in all aspects of media and Internet governance (e.g., ICANN, WAN-Ifra)
- Promote the notion that civil society participation in media and Internet governance is a right
- Implement educational programs about media and Internet regulation and governance

**Raise awareness around communication rights among social justice organizations and social movements**

- Advocate participation in media and Internet governance is a right
- Implement citizen-run educational programs about media and Internet regulation and governance
- Promote the notion that all social justice movements should join the struggle for media reform
- Participate in media and Internet governance discussion and implementation
<p>| Participation of civil society in the design of media infrastructures and digital platforms | Budget public funds for citizen-led research and design of digital platforms and software | Monitor and assess the cultural appropriateness of media, digital platforms and software for diverse communities (e.g., Indigenous communities, disabled communities, linguistic minorities, etc.) | Establish the necessary channels to incorporate citizen input into research and design of communication technologies, especially Indigenous communities, disabled communities, and linguistic minorities | Promote research and design of communication technologies in schools | Promote design of communication technologies and software driven by the needs of disadvantaged communities and specifically (a) women and girls, (b) Indigenous peoples and (c) disabled people | Develop and fund initiatives for sharing knowledge, know-how, technical expertise, and content between disadvantaged communities | Implement citizen-run, local initiatives of communication technology research and design | Demand participation in corporate and public communication technology research and design | Promote the use of open access software |</p>
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<tr>
<th>Protection from surveillance and data extraction</th>
<th>Design and implement regulation that protects citizens from surveillance and data extraction by media and Internet corporations, governments, and security organizations.</th>
<th>Promote multistakeholder regional and international forums to address surveillance and data extraction.</th>
<th>Review and adjust business models for consistency with rights of privacy and data protection.</th>
<th>Promote a public conversation on surveillance and data extraction as threats to privacy.</th>
<th>Demand right to privacy and protection against data extraction by corporate or government entities.</th>
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<td>Regulate the use of algorithms for marketing or surveillance purposes.</td>
<td>Re-position civil society organizations as key participants in regulating the consequences of surveillance and data extraction.</td>
<td>Advocate policies, regulations, and treaties that advance rights of privacy and data protection.</td>
<td>Expose unlawful government surveillance activities.</td>
<td>Demand transparency and accountability of data collection, filtering and the use of predictive algorithms.</td>
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<td>Develop legislation that protects whistleblowers and investigative journalists.</td>
<td>Lead a public conversation about filtering and predictive algorithms.</td>
<td>Promote legislation that protects whistleblowers and investigative journalists.</td>
<td>Support the design and distribution of ad blockers and tracker visualization tools.</td>
<td>Propose a public conversation on surveillance and data extraction as threats to privacy.</td>
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<tr>
<td>Media infrastructures and digital platforms free from censorship</td>
<td>Develop regulatory regimes that demand transparency and accountability of content filtering mechanisms.</td>
<td>Monitor the transparency of content filtering mechanisms used by corporate and government media and digital platforms.</td>
<td>Commit to supporting independent investigative journalism as the social responsibility of media and digital platforms.</td>
<td>Fund civil society initiatives to monitor and catalogue content removal in digital platforms and social media.</td>
<td>Demand transparency and accountability of data collection, filtering and the use of predictive algorithms.</td>
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<td>Include the social responsibility of media and digital platforms as a key element of international and national media and Internet legislation.</td>
<td>Promote the need for investigative journalism as an essential component of democratic life.</td>
<td>Support independent investigative journalism initiatives (in universities, foundations, or government-sponsored organizations).</td>
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<td>Information and media literacy</td>
<td>Promote the inclusion of media and information literacy as a core element in school and university curricula</td>
<td>In collaboration with NGOs, civil society, and citizens’ media, implement media and information literacy initiatives at the local level, especially targeting children and youth, disabled communities, ethnic minorities and other vulnerable populations</td>
<td>Develop transparent and accessible conventions for disclosing sponsorship, and describing the use of predictive algorithms</td>
<td>Fund/sponsor media and information literacy initiatives developed by international orgs, NGOs, civil society and citizens’ media</td>
<td>Develop initiatives with NGOs, civil society, and citizens’ media, implement media and information literacy initiatives at the local level, especially targeting children and youth, disabled communities, ethnic minorities and other vulnerable populations</td>
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<td>Linguistic diversity</td>
<td>Implement policies that mandate subtitles and translation</td>
<td>Coordinate and support local initiatives for linguistic diversity</td>
<td>Produce content in various languages, including Indigenous languages</td>
<td>Develop free and accessible media and information literacy initiatives in collaboration with NGOs and citizens</td>
<td>Coordinate and support local initiatives for linguistic diversity</td>
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**Linguistic diversity**

- Implement policies that mandate subtitles and translation
- Design regulatory regimes that mandate the production of media content and software for linguistic minorities and disabled communities
- Include Indigenous people and people with disabilities in the formulation of media and Internet regulatory regimes

**Information and media literacy**

- Promote the inclusion of media and information literacy as a core element in school and university curricula
- In collaboration with NGOs, civil society, and citizens’ media, implement media and information literacy initiatives at the local level, especially targeting children and youth, disabled communities, ethnic minorities and other vulnerable populations
- Develop transparent and accessible conventions for disclosing sponsorship, and describing the use of predictive algorithms
- Fund/sponsor media and information literacy initiatives developed by international orgs, NGOs, civil society and citizens’ media
- Develop free and accessible media and information literacy initiatives in collaboration with NGOs and citizens
- Promote public conversation about the improvement of media and information literacy
Human knowledge as commons, instead of commodities

Balance intellectual property rights with notions of information and knowledge as the commons of humankind

Pressure trade agreement negotiations to balance intellectual property protections with the rights to free knowledge and information

Recognize the limits to proprietary claims over information, expression, and innovation

Pressure schools to embrace free/libre/open source software in the classroom

Ensure knowledge as a right

Pressure schools to embrace free/libre/open source software in the classroom

Demands to know and inform

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[3] Affiliations: National Research University, Russia; University of Indonesia, Indonesia; C3 – Fundación Friedrich Ebert, Colombia; Universidad Iberoamericana Puebla, Mexico; University of Queensland, Australia


[5] This paragraph written by Pradip Thomas.


[8] Case study written by Inaya Rakhmani.


[13] The best example is the Colombian Ugly Betty, which has a Mexican and a US adaptation, each completely different from the Colombian source, apart from the main character (Miller 2010).


See, for example, General Agreement on Tariffs and Trade, art. XX: General Exceptions, https://www.wto.org/english/docs_e/legal_e/gatt47_02_e.htm#articleXX; General Agreement on Trade in Services, art. XIV: General Exceptions, https://www.wto.org/english/res_e/booksp_e/analytic_index_e/gats_02_e.htm#article14.


See (http://www.onderzoeksraad.nl/)


[29] Mexico, Kenya, South Africa, Japan, Trinidad and Tobago, Malaysia, New Zealand, Germany, Australia


[32] See SPI 'Personal rights'; 'Access to information and communications'


[38] International Modern Media Institute, “IMMI Resolution,” https://en.immi.is/immi-resolution/.


[41] Case study written by Pradip Thomas.

[42] Compare the similar ‘right to free development of [the] personality’ recognised in German law: Article 2 of the Grundgesetz.


[44] Note: we have allocated the tasks in the toolkit matrix to the actor who should have the main responsibility for each task, however various tasks should be developed by multistakeholder bodies