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Séverine Arsène

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The Chinese ICT Development Strategy in Africa: Transparency, Sovereignty, and Soft Power

SÉVERINE ARSÈNE

THE RISE OF ICT IN DEVELOPMENT POLICIES AND THE ADVENT OF NEW PLAYERS

Increasingly, transparency is identified as one of the key challenges in the field of development aid. Transparency was mentioned as a condition to improve accountability and aid effectiveness in the 2005 *Paris Declaration on Aid Effectiveness*, completed in 2008 by the *Accra Agenda for Action*.¹ In 2011, the *Busan Partnership for Effective Development Cooperation*² reaffirmed this principle.

Information and communication technologies (ICTs) are considered as an important tool to achieve this goal. An entire field of research and practice has emerged under the title “ICT for development” (ICT4D).³ It underlines the potential of ICTs for development in general (it could provide more economic opportunities, especially in remote places) and for transparency in particular.⁴

This promise of ICTs for transparency is twofold. On the one side, it could empower civil society, increase participation, or help fight corruption,⁵ all of which considerably improve local governance and have a positive impact on development. From that perspective, reducing the “digital divide” between countries and within countries has become one of the top priorities of development agencies

around the world.

On the other side, ICTs could be used to improve the management of development projects themselves. By sharing and publicizing information on their development aid initiatives, donors improve aid coordination, control, and efficiency. Major donors, such as the World Bank,^{6,7} the U.S. Agency for International Development (USAID),⁸ and other international actors like the Organization for Economic Cooperation and Development (OECD),⁹ are, therefore, rethinking and prioritizing the role that ICTs can play in achieving favorable development outcomes and good governance. As an example, the OECD Development Centre has developed two wikis aimed at sharing data on development and on women—Wikiprogress¹⁰ and Wikigender.¹¹

In this context, new players are gaining an increasingly important role in building the ICT infrastructure of developing countries. This is particularly true in Africa, where most ICT infrastructure—from telecommunications backbones to customer services—is just starting to be developed, at a very rapid pace. Chinese companies are particularly under scrutiny as they gain new markets in Africa and win public bids to implement telecommunications technologies.

Several studies focus on the impact of this increasing Chinese presence within the international aid architecture. For example, they assess whether Chinese practices could undermine previous efforts by the international donor community to establish norms in terms of international debt, supported export credits, social and environmental standards, or governance and transparency, among others,¹² or, on the contrary, whether such practices would give African countries an alternative to the neocolonialism that is embedded in some traditional donors' practices.¹³

It is not my intention to discuss the impact of China on development norms in general. Instead, I would like to outline a number of issues that are specific to ICTs and transparency.

Indeed, these technologies have important stakes in terms of fundamental rights, from freedom of expression to privacy to the rule of law.¹⁴ The very rapid development of telecommunications infrastructures in countries where they were not available so far—and the subsequent adoption of legislation to control them—is a crucial moment in these countries, affecting not just the social, political, and economic development but also their state security and sovereignty. It has an impact on global Internet governance as well. In this paper, I intend to explore the logical tension between these sensitive stakes and the transparency promises that are both embedded in ICTs.

The arrival of new actors like China, which plays a central role in this development process and may be a game changer, is an excellent lens through which to explore this issue.

CHINA HAS BECOME A CENTRAL PLAYER IN AFRICAN ICT DEVELOPMENT

China has been involved in development aid for decades as part of its diplomatic strategy. Its influence in African countries' development has increased

considerably in recent years, not only through aid but also through a range of financial tools that enable Chinese companies to invest in infrastructure development projects.

Chinese development aid policy is now coordinated by the Chinese Ministry of Commerce (MOFCOM) and executed through the two Chinese "policy banks"—China Exim Bank and China Development Bank. Some of the financing tools used by China fall under the category of "official development assistance" (ODA) as defined by the OECD Development Assistance Committee. They generally consist of concessional (subsidized) loans by Exim Bank. According to the *China White Paper on Foreign Aid* issued by the Chinese State Council, Africa was the recipient of 45.7 percent of Chinese foreign aid in 2009.¹⁵ The *White Paper on China-Africa Economic Trade and Cooperation*, published by the Information Office of China's State Council in 2010, states that "from 2007 to 2009, China provided US\$5 billion of preferential loans and preferential export buyer's credit to Africa. It has also promised to provide US\$10 billion in preferential loans to Africa from 2010 to 2012."^{16, 17}

In fact, the main tools of the Chinese development policy in Africa do not count as "aid," according to the OECD standard (they fall into the category of "Other Official Flows"), although they do contribute to infrastructure development. That essentially includes export buyers' credits (loans with or without a preferential rate) and other financial tools that facilitate Chinese corporations' exports in Africa. Deborah Brautigam quotes Li Ruogu, president of China Exim Bank, who announced in 2007 \$20 billion of export buyers' credits over three years. She also mentions that by 2010, China Development Bank had committed more than \$10 billion to projects in Africa in loans at commercial rates.

Besides, Chinese policy banks can use "strategic lines of credit" to help key Chinese corporations invest in Africa through a combination of sellers'

credit, export buyers' credits, import credits, and preferential loans.

The Chinese commitment to increase trade and cooperation with African countries was confirmed by the creation of the Forum on China-Africa Cooperation,¹⁸ which has held summits every three years since 2000. In a report for the OECD, Martyn Davies underlines that this is part of a Chinese "state-capitalist" approach, with state-owned companies in key sectors and policy banks through which China can make strategic commitments to Africa. This enabled China to increase the outbound foreign direct investment (FDI) in a "countercyclical" manner.¹⁹ Although Africa may not be China's top priority, Chinese aid and, even more important, Chinese investments in Africa have increased considerably, making China one of the key actors in development in Africa, at a time when contributions from other donors and investors (mainly western countries) may stagnate or decrease as a consequence of the global economic crisis.

While these investments mostly go to such sectors as mining, resource extraction, energy, or financial services, they also fund a certain number of important infrastructure projects in the field of telecommunications. For example, the *White Paper on China's African Policy* states that "the Chinese Government will step up China-Africa cooperation in transportation, telecommunications, water conservancy, electricity and other types of infrastructure."²⁰

As a result, such companies as the Chinese manufacturers Huawei and ZTE are becoming major players, winning huge contracts to implement telecommunication networks that are still underdeveloped in many countries. One of the most striking examples is the case of Ethiopia, where, according to Brautigam, "ZTE was able to offer finance for the Ethiopian Government's Millennium Telecoms Project, securing a US\$1.5 billion deal."²¹ In 2008, ZTE was chosen as the exclusive partner to build

the Ethiopian telecommunications backbone network.²²

I. CITIZENS' RIGHTS

One key feature of the discourse about telecommunications in terms of development is that ICTs are supposed to enable more transparent and, therefore, more efficient governance. ICTs are conceived as tools for better planning and resource allocation. The digitization of administrations is supposed to reduce bureaucratic burdens and increase the efficiency of public policies. E-government and open data are supposed to improve accountability and transparency. In general, the development of telecommunications may be a source of empowerment for civil society. In other words, ICTs not only may be a leverage tool for economic development but also may carry the potential to improve the functioning of democracy itself.

In that perspective, the increasing success of China in developing countries is puzzling, because China is one of the earliest and most efficient censors of telecommunications and particularly of the Internet in its own territory. The organization Reporters Without Borders qualifies China as an "enemy of the Internet"²³ because of its censorship practices and its repression of cyberdissidents. China was also one of the main targets of Hillary Rodham Clinton's speech on "Internet Freedom" in 2010.²⁴

In fact, beyond the question of freedom of speech per se, the specificity of China is to have bet on ICTs as leverage for economic development without really introducing democracy, which questions the assumption of a link between ICTs, transparency, and democratization. The Internet is part of the strategy of the Chinese government to modernize the country and provide business opportunities throughout the territory. Administrations are also supposed to modernize and become more efficient and accountable through the use of ICTs. At

the same time, Chinese citizens' expression online is tightly controlled and subtly channeled so that they can let off steam, but they can never seriously question the regime.²⁵ Rebecca MacKinnon calls this "networked authoritarianism."²⁶

Therefore, one of the main concerns when it comes to Africa is that China may promote its own conception of telecommunication, as both an accelerator of economic development and a tool of social control. Indeed, China has the capacity to provide African countries with technologies as well as legal and practical expertise to censor public opinion and spy on dissidents.

There are examples of African countries that censor telecommunications. Ethiopia strengthened its control of telecommunications substantially in the last few years, while engaging in efforts to develop infrastructure (only 1.1 percent of the Ethiopian population has access to the Internet so far).²⁷ The country now uses deep packet inspection to block proxy services such as Tor, allegedly thanks to technologies provided by China with a \$1.5 billion loan.²⁸ Ethiopia is considering legislation that would make voice over Internet protocol (VoIP) illegal and that would give "the ministry of communications and information technology the power to supervise and issue licenses to all privately-owned companies that import equipment used for the communication of information," according to Reporters Without Borders.²⁹ The latter measure, which would introduce a kind of intermediary liability, is one of the key characteristics of the Chinese domestic Internet control architecture (although holding intermediaries liable for content is now prevalent throughout the world).

However, not all the African countries where Chinese companies operate have adopted such policies and censorship technologies. There are great differences throughout the continent. For example, apart from the Ethiopian case, the Open Network Initiative has found no evidence of Internet filter-

ing in Sub-Saharan Africa,³⁰ while most countries in the Middle East and North Africa region use various methods of Internet filtering and control.³¹ The differences between countries seem to depend on such factors as the level of development of ICT infrastructures (the Internet access rate is on average much higher in the Middle East and North Africa region than in Sub-Saharan Africa, and so are the corresponding censorship technologies) and, of course, on the type of regime, rather than on the presence of Chinese providers.

What may have changed, though, is that if required by an African government, censorship technologies cannot anymore be purchased exclusively from western companies³² but may be purchased from Chinese companies, which have acquired a more competitive position in this market. In fact, Chinese corporations seem to have similar reputation problems as western companies when it comes to providing censorship technologies to authoritarian countries. Both Huawei and ZTE have had to promise to reduce their partnership with Iran after the fact that they had provided censorship technologies was revealed, and also out of concerns about the Iranian nuclear projects.³³

As their business is growing, Chinese companies are now putting much work into improving their image globally, including through transparency efforts. This happens in a context where the ICT sector is perceived as extremely sensitive, notably because of the cybersecurity and sovereignty issues that it raises.

II. TRANSPARENCY, CYBERSECURITY, AND SOVEREIGNTY

Precisely because ICTs bear important democratic promises, they are particularly sensitive in terms of state sovereignty and public order. For example, the vice president of Huawei, Guo Tianmin, announced that his company was able to provide the Congolese

authorities with adequate infrastructure for conducting a population census, identity card fabrication, and electoral filing for future elections.³⁴ Although the promises brought by such technologies are extremely appealing, there are risks such as data theft (for foreign intelligence) or manipulation (to destabilize the country). One may wonder whether it is safe for a country to put such data and power in the hands of foreign companies, be they Chinese or other.

This concern is emerging at a time when cybersecurity is becoming an important issue in global affairs, China and the United States being among the key players of a sort of “cyber war.”³⁵ In this context, the United States and Australia have barred Huawei and ZTE from participating in bids to build network construction projects on their territories.³⁶ Meanwhile, the U.S. Congress investigated whether the “networking equipment sold could secretly contain Chinese military technology to spy and interfere with U.S. telecommunications”³⁷ and concluded that Chinese telecom equipment makers should be kept from the U.S. market.³⁸ It is notable that the Chinese government also claims that China is the victim of many cyber attacks.³⁹ In general, every country in the world is paying more attention to cybersecurity and to the impact of ICTs in terms of state sovereignty.

True, there is not enough transparency among Chinese corporations to be able to dispel concerns about cybersecurity. First, there are intricate links between the Chinese Communist Party and the leadership of the Chinese corporations. This is a very common feature in China, due to the frequent conversion of political positions into economic responsibilities since the beginning of the 1980’s economic reforms, but it is considered with particular suspicion in this sensitive sector. For example, Huawei’s founder, Ren Zhengfei, is known for having held the position of deputy director in the Chinese People’s Liberation Army’s engineering corps. Sun

Yafang, the chairwoman, used to work for China’s Ministry of State Security.⁴⁰ Although Huawei is formally a privately owned company, the personal and informal ties that link its leadership to the Chinese authorities may be binding (which the Chinese firmly deny).

Besides, there is a relative lack of transparency in Chinese development projects in Africa (and elsewhere) and the amounts invested.⁴¹ China does not report aid to the Development Assistance Committee—whereas other nonmember countries do. It is also very difficult to find figures broken down by country or by sector. This lack of accurate and up-to-date data about Chinese aid and investments in Africa is a source of concern for the donor community, which is trying to increase coordination efforts in order to improve aid efficiency.⁴² This is particularly paradoxical, since ICTs are usually associated with greater transparency. However, this is also a very sensitive and strategic area, that is, in the eyes of the Chinese, not so much about aid but essentially about exports and investment.

Indeed, the dynamism of the Chinese banks and manufacturers in this region is primarily an element of the Chinese “going-out strategy.” This strategy, launched by the Chinese leaders in 2000, is an encouragement for Chinese companies to invest abroad in order to reduce the volatility of Chinese financial assets and expand their markets. The handling of the issue by MOFCOM instead of the Ministry of Foreign Affairs also suggests that the Chinese perspective is now more economic than diplomatic. In other words, these projects are considered as a strategic element of the Chinese economic and industrial expansion, which explains a certain level of secrecy.

The Chinese telecommunications companies have made some efforts, however, to increase their level of transparency in order to reassure potential commercial partners.⁴³ In December 2010, Huawei opened a “Cyber Security Evaluation Centre”

in Great Britain⁴⁴ where they let potential buyers test their products for potential threats. In spring 2011, the annual report of the company, audited by KPMG, released for the first time the names of Huawei's board members (but only to receive more criticism when Sun Yafang's past at the Ministry of State Security was revealed, as well as the presence of several members of the Ren family in the list).⁴⁵ Huawei is said to be considering a potential listing in the U.S. stock market, which would force Huawei to disclose even more information.⁴⁶

These transparency efforts highlight the uncomfortable position of the Chinese telecommunications companies. ICTs are considered to be an extremely sensitive area in China, monitored closely by the authorities. As such, the lack of transparency and the links between the party and the company are not surprising, just like in any leading economic sector in China. At the same time, as industrial giants, Huawei and ZTE are supposed to take part in the Chinese "going-out strategy" and conquer new markets. Although it may be technically possible to implement devices or software enabling some forms of spying or manipulation, any discovery of such technologies on Chinese installations could ruin the companies' decade-long efforts to gain global trust and could seriously hamper profits. In that sense, there is no evidence to support the hypothesis that Chinese companies would be different from any of their western counterparts that are competing for the same markets and that could also raise cybersecurity issues.

Actually, from an African point of view, cybersecurity is only one among various sovereignty concerns. As there are relatively few local resources in terms of technology and know-how, most African countries rely on foreign development projects to develop their ICT infrastructures. Moreover, development aid in Africa by western organizations and companies is sometimes considered to be a new form of "imperialism" or "colonialism" to the

benefit of western countries.⁴⁷ Indeed, foreign aid is most often conditional upon or designed so that contracts are signed with multinational corporations from the donor countries. Financial support from international organizations (the International Monetary Fund, the World Bank) is also conditional upon governance reforms that are often considered locally as infringements of sovereignty (privatizations, deregulation, suppression of trade tariffs, etc.).

In that regard, the relative opacity in which Chinese contracts are signed may be considered as an advantage for African countries that want to keep an upper hand on their own development policies and on the negotiations with international investors. Chinese investments are often considered locally as more politically neutral, since they are not tied to political conditions and governance reforms.

But are they really?

III. THE OPAQUE POWER OF NORMS

True, the Chinese actors in this field do not seem interested in changing political regimes or government practices in Africa. However, investing in Africa as part of the "going-out strategy" is clearly aimed at raising China's position as a global power. As such, it is one element of the Chinese government's recently enhanced "soft power" strategy. Based on Joseph Nye's theory,⁴⁸ this strategy aims at improving China's global influence and image not only through economic and industrial development but also by promoting Chinese language and culture, products, trademarks, standards, and technological know-how.⁴⁹ The global expansion of the Chinese media is a central element of this strategy, particularly in Africa.⁵⁰ The expansion of Chinese expertise, technologies, and norms in the ICT field is also a crucial element of this strategy.

Indeed, investing in African markets is part of a strategy to climb the ladder of innovation. China

is investing a lot to develop its own technical standards in order to reduce its dependency on foreign technologies and actually start earning royalties. Moreover, implementing networks based on Chinese technologies in Africa may weigh in favor of China in the global negotiations over technical norms. As China is very active in pushing for the adoption of norms that are favorable to the Chinese interests in such fora as the Internet Engineering Task Force (IETF) or the International Telecommunication Union (ITU),⁵¹ the fact that China is equipping an important part of the world may result in a kind of *fait accompli*. Therefore, it would be interesting to look more closely at the technological choices involved in these contracts, to assess how they may shape these countries' future relationships with China and with the international community.

Another related issue that will be crucial to look at in the near future is whether China will influence its African partners' positions in telecommunications governance. For example, Huawei's Guo Tianmin recently announced the opening of a new training center in Kinshasa (one of five in Africa).⁵² Could this have any influence on the opinion of future African ICT experts on these issues?

As the treaty known as International Telecommunications Regulations, which dates back in 1988, is being renegotiated in 2012, China is taking very conservative positions that include the defense of digital sovereignty and the transfer of key competencies to the United Nations through the ITU.⁵³ The "multistakeholder" governance scheme that currently prevails in this field and that allows non-state actors to take part in negotiations certainly does not have the support of China, as it is much too "volatile," so to speak, compared to the very codified, exclusive standards of intergovernmental negotiation.⁵⁴

In this context, China is positioning itself as a representative of developing countries' interests, arguing (with relatively good reason) that multi-

stakeholder governance gives more influence to developed countries (particularly to the United States). These governments and for-profit and not-for-profit organizations all have better resources for lobbying than do those of developing countries. This argument seems to resonate with a number of developing countries. This year's negotiations at the ITU will be an excellent occasion to assess whether some African countries take positions that are close to the Chinese and what they are.

CONCLUSION

The fact that new actors like China are acquiring an increasingly important role in the development of new infrastructures in Africa certainly has the potential to deal the cards. In the field of information and communication technologies, there are important stakes beyond the field of development aid, from freedom of speech to cybersecurity and to global telecommunications governance.

Not all Chinese practices are different from western countries' practices. Chinese companies, too, are selling technologies that are supposed to increase transparency and accountability in African countries. Chinese companies, too, are selling technologies that help governments monitor, filter, or censor their citizens' expression. But the well-known expertise of China in using ICTs to control its own population has shed a new light on the fact that there is no direct link between ICTs, transparency, and democratization. This all depends on various factors and particularly on the recipient country's political agenda as well as on the people's appropriation of the technologies.

As a consequence, the very attempt to study the Chinese role in "Africa" is very limited. It symbolically implies that African countries would be passive objects of other entities' actions, which is not the case. Africa is a very diverse continent, with all sorts of political regimes, levels of development,

and local dynamics. At this stage, it seems important to advocate for more specific case studies in a series of African countries.

Chinese and western companies are also not that different in that they raise cybersecurity and sovereignty issues for African countries that put their most sensitive data and government processes into these companies' hands. All of them are now competing to develop, implement, and normalize new technological standards and therefore exercise power on the people and countries that will use them. The very sensitive character of these technologies and the geopolitical stakes paradoxically lead to a certain level of secrecy around the technologies that are supposed to bring more transparency.

However, China is different from other countries in that its development projects are most often not considered as aid but as investment, for the conquest of new markets in the framework of the "going-out strategy." More generally, this is part of the Chinese "soft power" strategy, which aims at increasing China's global power through economic, technological, and cultural domination. Both Africa and ICTs are clearly identified as strategic goals in that regard. The initiatives to increase transparency undertaken by such companies as Huawei and ZTE are, in fact, only the result of an effort to gain trust in the international markets, not that of a will to increase coordination with other donor countries. The flip side of this coin is that it gives recipient countries more autonomy in their own political and economic choices, whereas governance requirements by other donor countries (including transparency) are perceived as a new form of western hegemony.

What the Chinese rise underlines is in fact the hard competition that the world's biggest technological powers are involved in and the importance of developing countries as an enormous stake in this battle. Western calls for more transparency seem not only motivated by the need to improve aid co-

ordination (though this seems justified) but also by a perceived potential threat to their own interests in Africa.⁵⁵

This puts at the forefront the issue of the political importance of "code" and technical standards.⁵⁶ These stakes have remained relatively opaque to the public so far, perhaps partly because of their highly technical character. Opacity may also be inherently linked to the development of ICTs as it is shaped now, based on a race to impose proprietary technologies. Therefore, one might suggest the idea that open source technologies, together with technological training, could be an interesting solution to efficiently improve transparency, better guarantee developing countries' sovereignty, and avoid getting trapped in a technological race at the expense of users and citizens.

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