Mobile Discourses:
A Critical Discourse Analysis on
Reports of Intergovernmental Organizations
Recommending Mobile Phones for Development

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ABSTRACT

Considered the most accessible Information Communication Technology (ICT) ever to emerge, mobile phones are being recommended by international organizations as an essential tool for treating development problems, despite barriers and the lack of evidence of benefits. This dissertation relies on Critical Discourse Analysis (CDA) of reports of the World Bank, the United Nations and the United Nations Development Programme to unveil how these intergovernmental organizations articulate their discourse of advising mobiles to improve life. Their main rationale is also compared with previous development and ICT for development (ICTD) theories. Three excerpts from each report were evaluated: the executive summary, the section concerning the impacts of mobiles on development and the chapter highlighting policy recommendations. The analysis found that the three institutions have aligned discourses that exalt and differentiate the impact of mobile phones even more than that of other ICTs. Textual strategies are employed to minimize barriers, project failures and the lack of evidence of outcomes and, in contrast, to highlight easy solutions to these. The main message is that access to a handset will lead straightforwardly to benefits, echoing dominant paradigms. In order to make mobile devices and services more available, governments are exhorted to support the private sector in building the necessary infrastructure. The main argument for this is no longer the digital divide between Global North and South. The gaps are now between rural and urban areas within countries, and between those who have or do not have smartphones and access to mobile broadband. This process can demonstrate how the gaps justifying policies can be constantly changed in the ICTD discourse and highlights the need to deepen the research on specific discursive approaches in the mobile for development field.

INTRODUCTION

'Knowledge is like light. Weightless and intangible, it can travel the world, enlightening the lives of people everywhere. Yet billions of people still live in the darkness of poverty – unnecessarily'
(World Bank, 1999, p. 1).

In the age of Enlightenment, in the 18th century, reason and science are the light that could rescue humanity from the darkness of ignorance. After 300 years, this metaphor was resurrected in a development report of the World Bank (1999) to state that Information and Communication Technologies (ICTs) would bring the knowledge that would enlighten and improve the lives of billions of people around the globe.

Paraphrasing this statement, it is possible to say that nowadays the light is the mobile phone. In fact, it is not only the light, but even more important than water, electricity or toilets for some people, since it has become an essential need in modern life. In its latest report, the World Bank (2012) states that 'in some developing countries more people have access to a mobile phone than to a bank account, electricity, or even clean water' (p. 3). According to United Nations University (2010), India has more cell phone subscribers than toilets.

Mobiles have become such a desired device that they have reached planetary levels of penetration. According to figures released in July by the World Bank (2012), there are now 6 billion mobile subscriptions worldwide and 77% of these are in developing nations. One of the reasons is that they are becoming increasingly affordable for the lower-income population, mainly because of competition in the private sector and pre-paid options.

This ubiquity in low-income countries has caught the attention of the development community, which sees in this technology an easier way to reach remote areas and thus to overcome all sorts of problems, from poverty to inequalities. Thus, money started to be invested in programs involving mobile technologies in the developing world. Cell phones have turned out to be so prominent as a development tool that originated new terms, such as m-health and m-environment (Duncombe, 2011).

The most prominent institutions with the authority to elaborate policies on ICTs for development, such as the World Bank, the United Nations (UN) and the United Nations Development Programme (UNDP), have been prescribing mobile phones to improve life in low-income countries. The discourse of organizations specifically recommending mobile phones for development purposes is still to be widely researched in the literature of ICT for development (frequently abbreviated as ICTD, which is also used in this study). Thus, the aim

of this dissertation is to start collaborating to bridge this gap. There are many studies drawing on discourses justifying ICT in general (Avgerou, 2003, 2009, 2010; Cline-Cole & Powell, 2004; Ekdahl & Trojer, 2002; Lovink & Zehle, 2005; Mansell, 2011; Pieterse, 2005; Thompson, 2004, 2008; Wade, 2002, 2004). Nonetheless, there are few articles focusing particularly on discursive strategies employed in prescribing mobile phones as a development tool, which reinforces the academic relevance of this research.

Critical examinations of the discourses concerning mobile phones alone may be necessary because this technology has some particularities. The phones are being described as a more helpful tool for promoting benefits to developing countries. This happens mainly because this is the first time that an ICT is able to reach high penetration among low-income populations (Donner, 2008; Duncombe, 2011; Elder & Rashid, 2009; Heeks, 2008). Besides, scholars argue that handsets can have more advantages than other fixed ICTs. They are cheaper to buy, easier to use and require a less expensive infrastructure to deliver applications in areas such as health and education (Donner, 2006; Duncombe, 2011; Wade, 2004). However, scholars have been pointing out many constraints on their adoption, use and difficulties in establishing clear evidence of their impact on development (De Angoitia & Ramirez, 2009; Donner, 2004, 2007, 2008; Duncombe, 2011; Elder & Rashid, 2009; Heeks, 2010; Ureta, 2008).

Despite this, the most reputed international organizations continue to prescribe mobiles as a solution for poverty and other problems. This contradiction makes even more crucial the purpose of this dissertation, which is to find out their main rationale for doing this. Thus, this study relies on Critical Discourse Analysis (CDA) of reports of the World Bank, the UNDP and the UN to unveil how they articulate their discourse of advising mobile phones for development, what their main arguments and evidence are, and if there are similarities with previous development paradigms.

Within a discursive framework, the literature review summarizes the studies associating mobiles and development and highlights the main ideas regarding technologies to improve countries which have been dominating both development and the ICTD theories. In the methodology section, I explain why CDA is the most suitable discourse analysis approach for my study, since it allows unveiling interests, ideologies and powers. The last chapter presents the main textual strategies employed in the documents, shedding light on similarities and differences among mobile and others ICT discourses. It also shows how new technological gaps can be constantly created in the mobile phone discourse in order to justify policies privileging interests.

THEORETHICAL FRAMEWORK

In the last 60 years, every new technology that has arisen on the development horizon has been treated by international organizations, NGOs and stakeholders as a potential panacea for solving all types of social and economic problems (Melkote & Steeves, 2001; Ekdahl & Trojer, 2002). In the 1950s and 1960s, the mass media received all kinds of attention. Their advocates argued that 'exposure to the new media would bring about speedy development of the Third World' (Melkote & Steeves, 2001, p. 265). In the 1970s, the target changed to tractors. Despite these not being a new technology, organizations such as the World Bank promoted them as a tool to provide higher land productivity for African agriculture (Wade, 2002). Ten years later, the focus changed to the early types of ICTs such as satellite-based telephony and TV in rural areas of developing countries. ICTs may be defined as 'electronic means of capturing, processing, storing, and communicating information' (Heeks, 1999, p. 3). They include telephones, communication satellites, computers, broadband connections and mobile phones. In the 1990s, the Internet was exported to Third World countries as a new 'light' (World Bank, 1999, p. 1).

Since 2003, all this frenzy has turned to mobile phones, which seem to be the latest and most accessible worldwide instrument for fostering development. Once again, international organizations are following the same path as in the past of recommending a technology as a solution to bringing advancement to low-income countries.

Besides fulfilling the desire to communicate cheaply, the handsets have been seen as an instrument particularly appropriate for development (Duncombe, 2011). They can offer mobility and security to owners (Donner, 2006). They also provide poor countries with a chance to skip directly from no fixed telephony structures to a mobile structure, known as the leapfrogging process (Soete, 1985). Since many nations are still lagging behind the developed world with regard to other ICT usage, the mobile phone can be a less expensive technology for overcoming these gaps (Wade, 2004). Moreover, the use of handsets requires only basic literacy, not a huge barrier for most populations. They can also transmit and share data, providing applications in areas such as health, education, commerce and governance.

Studies of mobile phones and development

The international organizations analyzed in this dissertation have not until now had to hand a very extensive academic literature recommending mobile phones as a tool for speeding up development. The studies on this topic are relatively new and still not conclusive about the

impacts of mobile technologies. One of the first reports on this theme was released by the International Telecommunication Union (ITU) in 2003. Since then, a set of articles has focused on three main approaches: mobile adoption, interrelationships between mobile technologies and users, and assessment of their impacts on defeating underdevelopment (Donner, 2008).

The adoption perspective explains the global rate of mobile diffusion, market structures and commercial mechanisms in fostering penetration. There are still many barriers. Affordability and income remain the key ones, and strategies to overcome this have been tried by low income populations (Elder & Rashid, 2009). These include beeping, short text messages, missed calls, borrowing and sharing of handsets (De Angoitia & Ramirez, 2009; Donner, 2007; Elder & Rashid, 2009; Ureta, 2008). There are also structural factors, such as the influence of the policy environment (Sangwan & Pau, 2005) and the level of economic liberalization in each country. Summing up, the adoption of mobiles in developing nations does not seem to be as straightforward as some reports tend to portray it.

The second set of studies is about how people make sense of this ICT and how they choose to use it (Donner, 2008). For Elder and Rashid (2009), mobiles 'can help to strengthen social ties among the poor and provide them an opportunity to communicate in the case of emergencies' (p. 13). Although this has potential for development, evidence of improvements in people's lives remains inconclusive. Ureta (2008) dismisses even the most taken-for-granted-advantages of mobiles: their mobility and 'anytime-anywhere' availability. He concludes that they are, in fact, used as a substitute for fixed telephones, mainly to reduce costs. Katz and Aakhus (2002) argue that this technology can have negative effects by enabling certain forms of individualism.

When it comes to the impact studies on mobiles in development, more contradictions arise. One of the first papers measuring this relation was released by Vodafone in 2005. It associates higher levels of penetration of this ICT with higher rates of growth in gross domestic product (GDP) in developing countries (Waverman et al., 2005). This research was followed by many other quantitative researches concerned with economic benefits (Donner, 2008). This is the focus of the two case studies most cited in the literature, which seems to rely always in the same examples. A mobile information service for fishermen in Kerala, India, (Jensen, 2007) increased the profits of the producers and reduced prices to consumers. The mobile payment system M-PESA has allowed people without bank accounts to carry out financial operations in some African countries (Hughes & Lonie, 2007). There is also research evaluating the mobile's role in health, education, governance, entrepreneurship

and social change, emergencies, voting processes and in social activism (Duncombe, 2011; Garrett, 2006; Hermanns, 2008; Katz, 2007; Rafael, 2003; Suarez, 2006). When mobiles are used for social purposes, the direct impacts are even less obvious (Duncombe, 2011).

There is a consensus that the evidence provided so far is not strong enough to state that mobile phones lead to development results or to justify programs for their dissemination (Donner, 2004, 2008; Duncombe, 2011; Elder & Rashid, 2009; Heeks, 2010). According to Heeks (2010), the papers 'often lack rigor, being descriptive rather than analytical' (p. 629). Moreover, the methods for assessment are not always appropriate and there are few independent impact studies (Duncombe, 2011). The rate of failure of programs in developing countries is also high (Duncombe, 2011; Heeks, 2002, 2008). Even an organization that advocates mobiles for development admits that for every project that succeeds in bringing benefits to communities, twice as many fail (Mobile Active, 2010). As Wade (2002) argues, this is a common problem with ICT projects. Regardless of all this, the necessity of investment in ICT is usually not questioned, as used happen with other priority areas, such as education and health (Leye, 2007).

The literature on other ICTs: access as an indicator of development

Most of the ICTs that preceded mobile phones tended to be prescribed on the grounds of the benefits they constituted *per se*: the 'light' that would enable access to communication and information (World Bank, 1999). In 2000, access to ICT was included in the Millennium Development Goals (MDGs) and it appears in Target 18 of the eighth goal: 'in cooperation with the private sector, make available the benefits of new technologies, especially information and communication' (UN, 2001, p. 58). This aim has reinforced the adoption of ICT indicators as a measurement of advancements (Avgerou, 2003). Indices such as the number of fixed-telephone subscriptions and of Internet users became a way of assessing the stage of development of countries. This trend continues with cell phones. Released in July 2012, the latest report of the World Bank (2012) brings a list of indicators such as subscriptions of mobiles per 100 people and number of persons with access to mobiles in each nation. This implies that if people in low income countries have a mobile phone subscription, other factors causing underdevelopment will soon start to be overcome (Indjikian and Siegel, 2005; Mansell, 2011). 'The ICTD paradigm presupposes that access to and availability of ICT will lead to development' (Leye, 2007, p. 978).

This approach is what Mansell (2011) calls 'knowledge is like light', still followed by most organizations engaged in solving development problems with ICTs. Mansell reached this

conclusion after analyzing 350 texts produced by key institutions which can influence policy and intervention strategies, among them the World Bank. Even projects that claim to have a more bottom-up approach are 'invariably reminiscent of the dominant model' (Mansell, 2011, p. 2). This dominant paradigm resonates in Everett M. Roger's theory concerning the diffusion of innovations, proposed in 1962 and revised many times in subsequent years. Basically, it advocates that the availability of media technologies and innovations will bring about benefits for communities with access to them and that these gains will trickle down to the society (Rogers, 1976, 2003).

Diffusion of innovations is still a common theme in technology research nowadays, as Orlikowski and Iacono (2001) argue. This perspective has proved to be an important modernization approach in the communication for development field, since it also relies on technology transfer to achieve improvements (Melkote & Steeves, 2001, p. 120). Drawing on Morandé (1984) and Garcia de la Huerta (1992), Escobar (1995, p. 36) points out that:

> 'Technology, it was believed, would not only amplify material progress, it would also confer upon it a sense of direction and significance. In the vast literature on the sociology of modernization, technology was theorized as a sort of moral force that would operate by creating ethics of innovation, yield, and result. Technology, thus, contributed to the planetary extension of modernist ideals'.

Leye (2007), Mansell (2011) and Nulens (2003) have been arguing that there is a renewal of this same modernization paradigm where ICTD programs and discourses are concerned. The next section describes these main similarities.

ICTD as a new modernization discourse

Since the early stages of development thinking, the creation of an encyclopaedic knowledge, full of representations of Third World Countries and their populations, has been essential to justifying modernization perspectives (Escobar, 1995). Poor nations have been portrayed by the developed world as destitute of everything: money, modernity, civilization and social rules (Escobar, 1995; Said, 1978). The lack of material goods was the key argument guiding the modernization discourse, one of the dominant ideas in development theory between 1945 and 1970 (McEwan, 2009). In order to overcome these deficiencies, the former colonies were advised to modernize by following the same path as Western economies. 'They had to catch up both in economic terms and in terms of civilization' (McEwan, 2009, p. 131). This recipe relied on investment in industrialization and urbanization processes and goods provided by the Western world. Thus, the 'transfer of technology became an important element in the

elaboration of development projects' (Escobar, 1995, p. 36). Escobar argues (1995) that this discourse had hidden political and economic interests. Besides introducing capitalist ideas and moving communism away from Latin American during the Cold War, the modernization paradigm was able to create new markets for United States industrial products. The country also gained access to cheap raw materials to supply American multinationals (Escobar, 1995). The modernization arguments convinced poorer nations mainly because it represented a solution to the lack of goods and a way of overcoming inequalities between the rich and the poor world.

Similarly, the ICTD discourse also relies on the argument of lack of technology in developing countries to justify interventions. As for the modernization theory, it presupposes that there is a difference between rich and poor countries regarding the availability of ICT: the digital divide. Used in the 1990s by the Clinton administration in the US, this term designates the gap between those who have and do not have access to ICT (Warschauer, 2003), and it was used to describe technological inequalities between the North and South of the globe. In essence, technology is again presented as something lacking in developing countries that the rich world has a moral obligation to provide. As Cline-Cole and Powell (2004), Leye (2007) and Pieterse (2005) point out, the digital divide is central to ICTD discourse today: 'Bridging it has become a keynote of development policy, heavily promoted by major institutions' (2005, p. 12).

It is mainly because of these characteristics that Leye (2007), Mansell (2011) and Nulens (2003) have been arguing that this constitutes a renewed modernization discourse. Nulens (2003) goes even further, stating that 'this is presented even more forcefully than it used to be, as it promises that ICTs will open up the opportunity for the Least Developed Countries (LDCs) to leapfrog several stages of development' (p. 263).

After identifying the digital divide, the international community commits itself to narrowing or reducing it (Cline-Cole and Powell, 2004). Wade (2002) uses telephony policy as an example: 'Area A is rich, integrated into market relationships, and has a lot of telephones; area B is poorer, less integrated into market relationships, and has fewer telephones: therefore, a telephone rollout will make B richer and more integrated' (p. 450). This approach has been subject to many critiques. Pieterse (2001) argues that 'it is a deeply misleading discourse, since the divide is not digital but socioeconomic' (p. 167). Portraying the gap as a technical problem leads to an emphasis on technical solutions and a rationale that correlates connectivity with improvements (Pieterse, 2001). According to Cline-Cole and Powell (2004), this gives moral authority 'for intervening in the affairs of places which were considered to be

on the 'wrong' side of the digital divide' (p. 6). This is what Mansell (2011) calls the exogenous model, which basically means external investment from developed countries in top-down ICTs interventions aimed at closing technology gaps between the Global North and the Global South.

As it happened in times of the modernization paradigm, some scholars argue that this ICTD discourse also hides economic interests. For Mansell (2011), it is 'in line with neoliberal policies privileging external agencies and firm interests in diffusing technologies' (p. 11). Leye (2007), Pieterse (2005), Wade (2002) and Hamelink (1999) argue that ICTD discourse is driven economically by the corporate interests of Global North countries and international organizations. 'The interests of ICT firms are presumably to induce public bodies to create demand for their products in LDC' (Wade, 2002, p. 462). According to Wade (2002), tractors were recommended by the World Bank and by the United States Agency for Development (USAID) in 1970 mainly in order to create new markets for industries in that were facing bad times in sales. Nowadays, 'big ICTs firms may be playing a similar role' (Wade, 2002, p. 462). It is necessary, then, to scrutinize the discourse of international organizations to see if their recommendations for the dissemination of mobile phones are following this same track.

Conceptual framework

This dissertation relies in discursive approaches both in development theory and on ICTD more specifically to address the research questions described below. As already pointed out, the discourses of ICTD and modernization have much in common and post-development studies are the main sources of critiques of the dominant paradigm. Thus, it has proved useful also to adopt the same post-development ground in this research mainly to examine whether the arguments to recommend mobiles have similarities to the ideas that dominated previous development theories.

The discourses of international organizations and their member countries have been one of the main subjects of study of post-development schools. By examining the ideas that had been used to justify development programs, these scholars were able to unveil the hidden interests and ideologies of powerful nations. As Escobar (1995) argues, the articulation of 'knowledge and power is essential to development discourse' (p. 12). One of their core arguments is that the discourse of the First World about the 'Third World' was essential for justifying interventions to achieve improvements in poor nations (Crush, 1995; Escobar, 1984, 1988, 1995; Pieterse, 1991). By representing the Third World as inferior and in need of external guidance, the First World has justified the need to rescue it from underdevelopment and, thus, to interfere in poor countries' policies.

Nowadays, the views of international organizations on the role of mobile technologies to foster advancement can change practices in low-income countries. As Escobar (1995) argues, the 'United Nations had the moral, professional and legal authority in the discourse of development' (p. 41). However, their influence is not coercive, as described by Lukes (2005) as what he calls the first dimension of power. It is a covert and persuasive version of power, which is exercised through the wording of these organizations' documents. Therefore, I would argue that Foucault's (1970, 1972, 1979) discursive approach to power is the most suitable framework for this study. As he points out, 'power is everywhere; not because it embraces everything but because it comes from everywhere' (Foucault, 1979, p. 93). According to Foucault, power emanates not only from persons or institutions, but also from the representations they make and from the knowledge they create, which are disseminated in their discourses. I shall argue that this approach is extremely useful in examining what forms of thinking are being privileged and excluded in the discourse of organizations advocating mobile phones for low-income countries.

Research questions and objectives of the study

Since there are few studies scrutinizing the arguments of international organizations to rely on mobiles as a development tool, this dissertation intends to collaborate to this academic debate. One of the main goals is to point out what are the arguments and evidence to recommend mobiles as a public policy and where institutions are following the same approach already used in the ICTD discourse. By revealing their rationale, this study also expects to foster better decisions and investments in development programs focusing on mobiles.

The following research questions and empirical questions orientated this investigation:

> **RQ: How do reputed intergovernmental organisations articulate their discourse of recommending mobile phones for development?**
>> EQ1: What are the main arguments, evidence and justification for advocating mobile phones?
>> EQ2: What development views and discourses are being privileged in this process? Do they have any similarities to the dominant ideas of ICTD and development theory?

RESEARCH DESIGN AND METHODOLOGY

The research questions above and the theoretical framework led me to consider discourse analysis, specifically Critical Discourse Analysis (CDA), as the most suitable method for this dissertation.

Discourse analysis is the only method that enables the researcher to reveal how texts are articulated to produce specific meanings and reinforce views about a certain topic (Fairclough, 1995). This methodology sees the text as a result of ideologies, beliefs and knowledge (Chouliaraki, 2008; Fairclough, 1992, 1995, 2003; Rose, 2007). Knowledge consists of sets of truths created by groups that hold power to define and categorize reality (Hall, 1997; Foucault, 1970, 1972). Foucault (1971) theorizes that knowledge is entangled with power, since 'no power can be exercised without the extraction, appropriation, distribution or retention of knowledge' (as cited in Sheridan, 1980, p. 125). The production of normative knowledge is among the main tasks of international organizations (Barnett & Finnemore, 2004), including those analyzed in this dissertation. They spread their ideas about development through discourse, which is also a means of disseminating influence over other countries. According to Foucault (1979), 'discourse transmits and produces power; it reinforces it, but also undermines and exposes it, renders it fragile and makes it possible to thwart it' (p. 100-101).

That is why Fairclough (2003), Fischer and Foreste (1993) and Hastings (1998) recommend discourse analysis to evaluate public policies. As Hastings (1998) explains, this method is able to 'uncover how the use of language is connected to broader processes and practices, such as the reproduction of social relations or the construction of knowledge' (p. 192). This ability is not offered by other qualitative methods. Content analysis does not enable us to see the ideologies in the texts and an interviewee would rarely be able to reveal in an interview the development views adopted by the organization he works for. Other discourse analysis approaches, such as thematic or narrative analysis, were discarded because they do not place as much emphasis on discursive power as CDA does. This study also rejected Foucauldian Discourse Analysis because Foucault did not construct a methodology, such as that offered by CDA, which can be easily applied and replicated by researchers (Hewitt, 2009).

The theoretical framework also reinforces the choice of method. The most prominent post-development scholars, such as Crush (1995), Escobar (1995) and Pieterse (2005), have relied on discourse analysis to reveal the main arguments, representations, ideologies and interests that were used to construct the development theory in the last 60 years. Escobar (1995)

highlights that Foucault's work has been extremely useful for his purpose, because it allowed 'unveiling the mechanisms by which a certain order produces permissible modes of being and thinking while disqualifying others or even making them impossible' (p. 5). In the ICT field, Avgerou (2003, 2010) and Thompson (2004, 2008) have been using discourse analysis. Since this study is drawing upon development discourses, it was important to follow the same methodological path to compare the findings on the same basis used by the authors of the theoretical framework.

Amongst the many types of discourse analysis, Critical Discourse Analysis (CDA) was chosen for several reasons. The theoretical approach of CDA better connects language and power. It states that the powerful have their own codes which help to perpetuate power (Graham, 1999). Secondly, Fairclough's (1995) three-dimensional framework of CDA has demonstrated, in a pilot project of this research, to address the three dimensions that I believe are present in the discourse of international organizations: how they structure their ideas (discourse practices) in their reports (texts) to highlight the necessity of adopting mobile phones for development (social practice). Third, Fairclough (2003) not only recommends the use of CDA in policy documents, but also created the genre governance, which is specific for these types of text. This classification was useful in creating a pattern of investigation to apply to all the texts analyzed, a guideline for discovering the characteristics that are likely to be found in these reports.

Methodological limitations

The guideline has proved to be useful not only in creating a step-by-step guide, but also in overcoming one of the main critiques surrounding CDA: the excessive subjectivism of the researcher in the investigation. Wood and Kroger (2000) and Potter (1996) have alerted us to the dangers of the analysts' own assumptions and understanding of a text, which could lead to biased interpretations. The guideline was helpful for diluting this problem, since it was designed taking into account the findings and lessons of not only one researcher, but many other authors who have conducted CDA on policy documents and reports. Since CDA is not an objective method, some level of subjectivism is bearable even by Fairclough (2003), who argues that this is necessary in order to critically interpret the text. In this sense, self-reflexivity is required from the researcher throughout the analytical processes. Another limitation is that CDA does not produce generalizations and do not allow for universal representativeness. In this sense, it could be argued that only three reports of institutions are not a big sample to make claims about discourse of the whole universe of institutions. However, the sample provides a good idea about this universe, since the reports selected represent the few documents already published by intergovernmental organizations on

mobile phones for development. Studies and policies in this area are still incipient and the literature is yet quite small. Another challenge I faced during the pilot project for this study was to control my inclination to look for elements that would answer my research question. In order to dilute these risks, I created the methods and procedures described below.

Methods and procedures

In contrast to other quantitative methods, CDA does not recommend strict procedures for the selection of the sample. Because it is an in-depth and time-consuming process, it is usually applied to small amount of text. One of the challenges of this study was employing this approach on reports of 40 or more pages. The selected documents were released by intergovernmental organizations (IGOs) with authority to recommend policies on ICT for development: the World Bank, the UN and the UNDP. NGOs were excluded from this study because they do not have the power to celebrate treaties with member states and, thus, interfere in their policies as intergovernmental organizations do (Mazzuoli, 2011). The institutions selected publish policies about mobile phones for development more regularly than others and are also signatories of the latest reports about the topic. The World Summit on the Information Society (WSIS) report was not considered, because its latest paper, from 2006, does not take into account mobile phones.

The UN's (2010) *Information Economy Report 2010: ICTs, Enterprises and Poverty Alleviation* is the only one that focuses on ICT more broadly, with some chapters about mobiles. The other two reports are specific on them: *Mobile Technologies and Empowerment: Enhancing Human Development Through Participation and Innovation* (UNDP, 2012) and *Information and Communications for Development: Maximizing Mobile* (World Bank, 2012), released in July 17th, 2012. Since Fairclough (2003) argues that CDA can be applied to samples of larger bodies of texts, I selected three main excerpts from each report.

After a primary reading and broad discourse analysis of the full body of text, three excerpts were collected from the beginning, middle and end of each of the reports and treated as representative cells of the full body to be investigated in depth with CDA. Since the documents share almost the same narrative structure, it was possible to select the same parts of each one, which allowed comparisons among them. The sections were selected on the basis of the research questions. The first excerpt was provided by the executive summary, which summarises the main views of the organization. The second was taken from the section that links evidence of the impacts of mobile phones on development. The third piece of text came from the public policies recommendations on mobile phones. A second criterion was used to

reduce the size of the excerpt to around three pages each, in order to properly apply CDA procedures. To avoid bias, the parts were randomly selected according to the highest frequency of the word 'mobile'. The selection leaded me to a total of nine blocks and 24 pages:

World Bank: p. 3, 4, 5 (executive summary); 11, 12, 13 (evidence); 103, 104 (policies).

UNDP: p. 8, 9 (executive summary); 16, 17, 18 (evidence); 38, 39, 40 (policies).

UN: p. XI, XII (executive summary); 77, 78, 80 (evidence); 95, 96, 97 (policies).

One example of excerpt of each one of these chapters of each one of the reports is presented in the Appendix section (Appendix C, D and E). CDA was then applied using the guideline described below. For the final evaluation of each report, two analyses were considered: the full body of the texts and, mainly, the three excerpts that had received CDA.

Guideline design

CDA neither defines nor requires specific procedures and sequences during the practical analysis. Nevertheless, I found it useful to adopt a guideline to orientate the steps of investigation through the paragraphs. Far from directing the evaluations to desirable findings, the tool lists some characteristics of policy reports that the researcher should pay attention to in order to unveil hidden interests, ideologies and power relations within the discourse (Fairclough, 1992). In this sense, it also allows space for unexpected and intriguing findings that could not be predicted. The tool, which is reproduced in the Appendix A, is the result of lessons, tips and insights from five academic articles that used CDA to analyze police documents. Besides considering specificities of the three dimensions of the discourse, from Fairclough (2003), some attributes that are likely to be found in this type of text were also listed. These were figures of speech, such as hyperboles, and six other types of sentence construction, such as promotional messages and problem-solution sentences. An empirical example of the application of this tool can be found in the Appendix B. The guideline also: ensures that the same pattern of analysis was adopted in all the excerpts; allows comparisons among reports and guarantees replication, increasing the reliability of the study. Additionally, the tool has ethical intentions, since it can ensure that the findings are anchored in justifiable and transparent arguments. The results of the investigation are reported in the next chapter.

RESULTS AND DISCUSSION

The intergovernmental organizations analyzed in this study seem to be afraid of falling into the same past trap of contemplating mobiles as a miraculous remedy for all development problems. The report of the World Bank (2012) clearly states that they should not be considered a panacea to correct structural deficiencies in developing countries (p. 87). The UNDP (2012) argues that, despite all the excitement around mobile technologies, they cannot be taken as the 'magic bullet' to solve all issues or as an end in themselves (p. 35). The UN (2010) also makes the development community aware of the dangerous trend to 'mainstream' certain types of ICTs (p. 17).

Despite the concerns, these alerts do not indicate a turning point in the frenzied way in which the development community has portrayed every new ICT that has emerged until now. When the reports of these three intergovernmental organizations are scrutinized in the light of CDA, the warnings prove to be mainly rhetorical. It can be argued that the exaltation around mobiles is even bigger than with previous ICTs. They are pointed out as the 'most diffused ICT ever' (UN, 2010, p. 11) and responsible for 'reframing' the debate around ICTD (UNDP, 2012, p. 12). The World Bank (2012) states that 'mobile communication has arguably had a bigger impact on humankind in a shorter period of time than any other invention in human history' (p. 11). Even a new type of economy was created on it: 'the mobile economy' (World Bank, 2012, p. 4). This mood of elation prevails in the full body of the reports and in the excerpts selected for CDA, mainly in the executive summaries.

Overall, there is a considerable ideological alignment of the discourses of intergovernmental organizations with different profiles and objectives. The UNDP is an agency of the UN, created in 1966 to promote the reduction of poverty and, more recently, to meet the Millennium for Development Goals (MDGs). Thus, a sort of ideological lining up of the UN and the UNDP was expected. However, the World Bank and the UN have different founding treaties and development goals. The main principle of the World Bank is 'to assist in the reconstruction and development of territories of members by facilitating the investment of capital for productive purposes' (World Bank, 1989, p. 3). Its mission, basically, is to support development via economic gains. The UN has the distinctive aim 'to achieve international co-operation in solving international problems of an economic, social, cultural, or humanitarian character' (UN, 2005, p. 5). Nevertheless, all these differences seem to be diluted when it comes to recommendations concerning mobile phones for development.

Despite a few particularities within each report, the three organizations have been found to have the same discourse and trust in the market power to promote access to mobile phones and, consequently, development. Their main rationale relies on the argument that population of developing nations suffer from a lack of basic goods, including information. Access to mobile phones would, then, provide this marginalized population with the necessary informational tools to generate opportunities for employment, advantages in trade and improvements in life. The institutions argue that universal access to mobile phones would be leveraged by market forces, such as demand and supply, since mobiles have become a desired device among the poorest people, sometimes even more ubiquitous than electricity (World Bank, 2012; UNDP, 2012). In this sense, governments are advised to establish regulations to create a competitive environment for the private sector in order to allow mobile operators to flourish and to invest in building infrastructure to increase mobile access for poor populations. The predominant order of discourse implied in the reports is clearly a framework of economic liberalization. The message of all the three documents can be summarized by the UNDP (2012): 'it is important that policies support both broad access to information and service distribution, so that mobile services will reach difficult-to-access (and most times un-lucrative) rural areas' (p. 9, para.14)[1]. The possible reasons for this homogeneity of discourses will be further explored in the following sections.

Moreover, the rationale described above also has similarities with early development theories, such as modernization and diffusion of innovations. The reports represent the population of developing countries in the same way as modernization policies used to in the past: suffering from lack of goods, in this case of information, as an argument for the diffusion of mobile phones to low-income countries. There are also traces of the diffusion of innovation theory (Rogers, 2003).

However, important changes from the previous discourses on ICTD were also found. There is a trend to create different gaps in order to justify the recommendations of policies linked with private interests. The digital divide is no longer between Global North and South, but within countries, between urban and rural areas, and also between those who have or do not have Internet access via smartphones. The latest reports also point to an inverted flux of diffusion of innovations and technologies that is deemed to be generated by the spread of mobile phones in developing countries. Some mobile applications and innovations that were created in developing countries are now being exported to the Global North.

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[1] The citations that appear also with the paragraph (para.) refer to the excerpts analyzed with CDA. The ones without this are part of the full body of the text.

The following sections present the discursive strategies of these organizations. First, their portrayal of mobile phones as the ultimate ICT for development will be described. Second, the main arguments in doing this and how these justifications relate to the previous theories of development are unveiled. Their possible hidden interests, ideologies and privileged powers are also pointed out. Finally, this study highlights the novelties and differences compared to previous ICTD theory.

A discourse articulated to differentiate mobiles

One of the main discursive strategies of the intergovernmental organizations recommending mobile phones to developing countries is portraying them as a more important type of ICT than others. This seems to be a way in which they seek to convince governments that they cannot put themselves outside the benefits of this technology. In particular, the <u>textual</u> and <u>discursive</u> dimensions of discourse (Fairclough, 2003) are largely employed to reach this goal. In the discursive framework, two types of semantic construction are widely explored: additive and contrastive sentences. Additive connectors such as 'not only... but/and' frequently appear in the three reports to reinforce the argument that mobile phones are not only a communication tool or ordinary ICT, but can also offer more opportunities for development. 'Mobile applications not only empower individual users, they enrich their lifestyles and livelihoods, and boost the economy as a whole' (World Bank, 2012, p. 3, para. 3).

Contrastive connectors such as 'however', 'nevertheless' and 'by contrast' are structured to exalt the advantages of mobiles in access in comparison with fixed ICTs, such as computers, landline telephony and Internet, which tend to appear as depreciated. 'Access to fixed telephone lines in the poorest countries is extremely low and almost negligible in rural areas. By contrast, mobile access deepens each year as networks extend to more of the formerly unreachable' (UN, 2010, p. XI, para. 2).

In order to differentiate mobiles even more, this structure is usually combined with positive adjectives. The most widespread is the word 'new', used to portray mobiles as doors to a brand new world. They offer 'new opportunities', 'new venues', 'new alternatives', 'new means', and 'new possibilities' to those who have been historically marginalized. This formula can appear three times in just one sentence: 'they open new channels for connecting the poor to services, new ways for citizens to have their voices heard and new opportunities for civic engagement in larger governance processes' (UNDP, 2012, p. 9, para. 13).

Modalities, which can denounce how the authors commit themselves in making statements (Fairclough, 2003), are also used to reinforce the benefits. The reports employ adverbs such as 'positively', 'greatly', 'strongly', 'notably' to describe how this technology can affect poor people's lives. Adverbs such as 'simply' also highlight that the mobile is an easier technology to use and represents fewer barriers than other ICTs. The word 'arguably' implies that the benefits cannot be contested: 'mobiles are <u>arguably</u> the most ubiquitous modern technology: in some developing countries, more people have access to a mobile phone than to a bank account, electricity, or even clean water' (World Bank, 2012, p. 3, para. 2).

Hyperbole, a figure of speech denoting exaggeration, is present in words such as 'extremely', 'seriously' and expressions such as 'far exceeds'. These also reflect the presence of a common construction in this report: the <u>promoting message</u>. Among the six common types of sentences in policy documents (Fairclough, 2003), this turned out to be the most used in the excerpts analyzed, especially in the World Bank document. These messages include plenty of evaluations and assume a mission of promoting and advocating, as predicted by Fairclough (2003). In order to grant credibility to the exaltations, reports usually resort to academic scholars - what in CDA is called intertextuality.

The World Bank (2012), for instance, anchors its claims in a sentence from the reputed economist Jeffrey Sachs: 'Mobile phones and wireless internet end isolation, and will, therefore, prove to be the most transformative technology of economic development of our time' (p. 11, para. 1). This type of message also tends to portray the future as if it was an inescapable prediction: 'an increasingly hybrid wireless communications ecosystem will evolve over the coming years' (World Bank, 2012, p. 12, para. 6).

It means that if countries do not adopt the policies described in the documents, they will not reap the benefits of mobiles. This is even more explicit in semantic constructions of the type that Fairclough (2003) calls <u>rationalizations.</u> Using moral evaluations and claims that something bad can happen if nothing is done, this type of message urges governments to act rapidly to foster the spread of infrastructure for mobile phones. 'ICT access will remain restricted, particularly among the poor and small and micro-enterprises in rural areas until solutions are found for providing stable and affordable electricity' (UN, 2010, p. 12, para. 8). There is an implied threat here, as pointed out by Ekdahl and Trojer (2002) in other ICTD discourses: 'if you don't get on the ICT train and adapt, you'll run into serious trouble' (p. 3).

Despite the semantic construction used to make mobiles appear different from other ICTs, they turn out to be similar when it comes to the arguments employed to recommend them.

Mobile access leading to development

One of the core arguments for recommending mobile phones to improve lives relies on the way institutions represent the population of developing countries. In these reports, the beneficiaries of policies are always impersonally described as rural and poor, living in remote areas, historically marginalized and underserved by information. Then, the documents clearly state that poverty has an important informational component: 'Poor people often lack access to information that is vital to their lives and livelihoods, including weather reports, market prices and income-earning opportunities. Such lack of information adds to the vulnerability of the people concerned' (UN, 2010, p. X). Following previous development discourses, the organizations resort again to a technology, in this case mobile phones, to overcome this deficiency.

The reports argue that access to mobiles will bring about opportunities to leave the poverty trap and achieve improvements in life. It is not by chance that the word 'access' is the most prevalent in all three documents – it appears six times in the first two paragraphs of the UNDP's executive summary. It is present in the first sentence of the World Bank (2012) document to highlight that 'three-quarters of the world's inhabitants now have access to a mobile phone.' (p. 3, para. 1). This statistic is repeated ad nauseam by the other two reports to prove that mobiles are the most widespread ICT on the globe. Thus, accessibility and availability of technology is linked to the achievement of development targets. 'Recent estimates indicate that ICTs could be accessible to everyone by 2015 and bring internationally agreed development targets ever closer to achievement (ITU, 2010)' (UNDP 2012, p. 8, para. 1).

Describing the population to benefit as in need of information in order to recommend a technology or innovation resonates as one of the main principles of the modernization paradigm, a discourse heavily criticized by post-development scholars. The central criticism was that this approach did not bring the expected benefits to developing countries and also increased social and economic inequalities (Escobar, 1995; Pieterse, 2005). However, the mobile for development discourse clearly implies one of the pillars of this theory, the transfer of technology. The diffusion of innovation is literally mentioned in one of the excerpts as a positive strategy to make mobile devices reach remote areas and to bring improvements. 'The diffusion of mobile phones coupled with social networking creates a new space for citizens around the globe to engage in political action concerning democracy, freedom, and human rights' (World Bank, 2012, p. 25). Dissemination of communication technologies with the aim of achieving advancement is one of the core premises of the diffusion of innovations theory

developed by Rogers (2003). This was also criticized for being too top-down, heavily focused on technology and for supporting the dependency from developed nations (Mansell, 1982; Melkote & Steeves, 2001). Therefore, I argue that the mobile for development discourse can be seen to be echoing the dominant paradigm of development (Mansell, 1982). In this sense, the recommendation of mobile phones may be following a renewed modernization paradigm, as observed in discourses concerning other types of ICT (Leye, 2007; Mansell, 2011; Nulens, 2003).

This technocratic approach to development (Escobar, 1995) is also betrayed by textual choices made by the institutions, such as the metaphor 'tool', profusely used in the three documents to describe mobile phones. More than a stylistic choice, this may reflect the fact that documents present the mobile phone as an 'instrument' that, once introduced, can empower individuals, make them more participative, boost the economy as a whole and bring about other benefits, like magic. To reinforce the central role of the technology, mobile phones are usually the subjects of sentences in the active voice. These textual choices reveal how the m-development discourse still adopts the premise that 'knowledge is like light', a trend in the ICTD discourse already described by Mansell (2012). For instance, it is assumed that if people have mobiles in their hands they will automatically become more participative citizens and will demand better public services: 'Mobile technologies are also strengthening the demand side of governance by providing people with critical tools to engage with public institutions and demand more and better services' (UNDP 2012, p. 9, para. 9). The reader is led to believe that, once mobiles are available, the goals will be achieved straightforwardly.

In this sense, the discourse on mobiles for development is also following the ICTD paradigm which presupposes that 'access to and availability of ICT will lead to development' (Leye, 2007, p. 978). Many critiques argue that simply ensuring the uptake of ICT is not enough to bring about achievements (Gomez, 2011; Wilson 2009). 'Availability does not mean that people will have the required education and skills, financial resources and other factors required to make use of the technology and so to have access to the information provided' (Wilson, 2009, p. 9).

Despite this, the documents recommend mobile devices without explaining exactly what the processes are that would convert availability of a technology into, for instance, the ending of poverty. This is what Fairclough (2003) calls the logic of appearances, a rhetorical feature employed in policy documents and also heavily used in the discourse of mobiles for development. Basically, the documents just list evaluations and impressions, but do not explain the links between mobiles and development as described below.

The strategy of minimizing barriers and lack of evidence of impacts

Evidence, examples and numbers are not always presented. When they are, these figures come with a duty to explain and anchor economic benefits brought by mobiles rather than social gains. This was observed in the excerpts taken from the chapters highlighting impacts. They ascribe human development to mobiles, but evidence is provided only to justify economic growth. Academic articles and studies of mobile operators, such as Vodafone, and consultant companies, such as Deloitte, are frequently mentioned as a source of the economic achievements observed. This can bias the information, since they are the main interested in expanding mobile markets. The studies link higher rates of mobile ownership with higher GDP. It is argued that mobiles will reduce expenditure on travel, transaction costs and intermediaries and will lead to increased profits. As examples, the same case studies of Kerala fishermen and the M-PESA mobile bank are mentioned by all three documents. The reports also attribute to mobile phones macro-economic gains such as an increase of tax revenues from the telecom industry and foreign investment. In the UNDP document, ten out of twelve paragraphs describing impacts relate to economic achievements.

All the three reports acknowledge this lack of strong evidences for mobile phones' impact on development and also recognize challenges to be overcome before claiming the benefits. The most cited are infrastructural problems that present barriers to access, such as lack of electricity, but also failures that lead to low rates of sustainability and scalability of projects. The three institutions exhibit a fear of committing themselves to strong assertions and often do forewarn: 'Alone, mobile phones will neither pull people out of poverty, nor propel democratic governance' (UNDP, 2012, p. 14).

Nevertheless, all these counterbalances proved to be mainly rhetorical, since the documents end up advising in favour of mobile phones *per se*. Thus, textual strategies are used to hide the little evidence and to make governments believe that mobile advantages are just around the corner. One of the artifices is the use of the word 'potential' or 'promising' to transmit the message that all types of development are under way. After 'access', 'potential' is the most prevalent word in the three documents. 'There is indeed potential in the use of mobile technologies to support and enhance development outcomes' (UNDP, 2012, p. 40, para. 6). This means that mobiles do offer goals achievable in the near future. Verbs in the present continuous tense are employed to demonstrate that this process is in progress: 'applications are rapidly evolving' (UNDP, 2012, p. 40) and that mobile broadband is 'transforming the range of possible applications' (World Bank, 2012, p. 4). The verb is usually accompanied by adverbs such as 'potentially' and 'increasingly'.

The reports also use auxiliary verbs such as 'could', 'can' and 'may', followed by adverbs such as 'likely' and 'eventually'. They give an idea of imprecision and are useful to overcome the lack of precise evidence, examples and data. By doing this, institutions do not compromise themselves with strong claims. 'In rural areas, increased access to mobile phones and associated applications and services may have a particularly important impact on poverty' (UN, 2010, p. XI, para. 3). In the absence of facts, the documents employ a broad scope of assumptions and presuppositions. These are anchored in the opinion of the organizations, rarely in evidence and data, and represent something that is taken for granted about mobile phones. For instance, the World Bank assumes that just because billions of mobile applications were downloaded they represent a potential for development. 'More than 30 billion apps had been downloaded worldwide by early 2012, and they make for an innovative and diverse mobile landscape with a potentially large impact on the lives of people in developed and developing countries alike' (World Bank, 2012, p. 4, para. 9).

The structure of the paragraphs also contributes to minimizing the lack of evidence, challenges and barriers, which are often described by the euphemism 'certain disadvantages'. A very common construction is to start the chapter by highlighting the benefits, potentials, promises and gains of mobile phones, but usually in the middle some 'howevers' and 'buts' are introduced. Moreover, often the sentences present facts which contradict or even deny the arguments of the beginning of the text. In the executive summary of the UN, for instance, the reader is led to believe that mobile phones are widespread around the world. Nonetheless, in the same excerpt the text state that, in fact, half of the rural population in the least development countries is still not covered.

However, this does not matter, because the document states that 'there is still scope for further expansion of mobile coverage in areas where many poor people live' (UN, 2010, p. XI, para. 3). Thus, in the end, the text resumes the euphoric mood and again leads the reader to believe that problems can be easily solved and that there is plenty of potential for mobiles in the future. This is the problem-solution relation (Fairclough, 2003), heavily used in policy documents and also frequently in the reports analyzed. Usually, the solution proposed is to ensure more access leveraged by the private sector.

Unveiling hidden interests

In combination, the textual strategies unveiled above have the role of transmitting the following rationale:

1. Mobile phones are a different type of ICT, mainly because they are the only one that has reached such planetary levels of penetration.
2. Access to this instrument leads straightforwardly to development, even if the evidence for this is not that strong.
3. Thus, in order to spread development to more countries, it is necessary to increase access and to reach full global penetration of 7 billion subscriptions.
4. In order to do this, devices and infrastructure for mobile services should be made even more available.

According to the policy recommendation sections of the three reports, the most suitable social actors (Fairclough, 2003) able to provide universal access are the private sector, mainly pushed by market forces such as demand and supply. In contrast with other previous and expensive ICTs, such as computers and fixed Internet, mobile phones have become an affordable and desired device in both developed and developing worlds. In this sense, cell phones and services have become a profitable activity all around the globe. This is clearly stated by the UN (2010):

> 'The emergence of mass markets for telephony (and potential mass markets for mobile Internet) has changed the balance between capital investment costs and likely operational returns, making basic services commercially viable in most areas and adding to revenue streams for new services that can be made available through broadband networks' (p. XX, para. 10).

There is an implied argument that mobile operators are the actors most interested in expanding the infrastructure to increase handset sales, access and services in developing countries. This finding gives a powerful justification to anchor the most frequent policy recommendations of the documents: that governments should ensure an auspicious terrain for the thriving of mobile operators. The UN (2010) lists the responsibilities of policymakers: 'provide an enabling environment for the private sector to invest in infrastructure and service innovation, and for business in general to take advantage of the new opportunities arising from ICTs' (p. 95, para. 3).

Thus, all three reports advocate that governments should ensure regulation and competition. Once this is done, it is presupposed that the private sector will build the infrastructure that is missing in remote areas, enlarging the signal coverage and expanding access and

consequently offering development. Therefore, the institutions literally put the agency and power of improvements into the hands of the private sector, with the support of governments. Usually, we can find 'ideologies in the propositions that generally appear as implicit assumptions in texts' (Faircloug, 1995, p. 14). However, the UNDP (2012) states these clearly: 'Private sector partnership is essential to development. Without this, mobiles are just potential' (p. 40, para. 11). The World Bank even calls the beneficiaries consumers on at least three occasions.

This transfer of responsibility and power 'from the public holdings to the private sector or corporate interest hands is the main discourse of neoliberalism as policy' (Springer, 2012, p. 136). Thus, I would argue that the three institutions are aligned with a neoliberal ideology, an order of discourse predicted by Fairclough (2003) in policy documents. This is reinforced by economic jargon and nominalizations such as 'ecosystem', 'convergence' and 'supply and demand sides'. Thus, the discourse of international organizations may have been guided by the economic interests of corporations. This is in line with top-down and exogenous approaches, as argued by Leye (2007), Mansell (2011), Pieterse (2005), Wade (2002) and Hamelink (1999). In this sense, the growing concern widely exhibited in the reports to advise bottom-up mobile programs, respecting the local context, has proved to be mainly fallacious.

Thus, one of the explanations for the homogeneous discourse of these three organizations with different profiles may fit with the concept of 'corporatization of development', according to McLaughlin (2005), defined as 'partnerships that enable corporations to influence the direction of policy in governments and the UN system' (p. 59). By being the partners of institutions, the companies earn an excellent reputation and the chance to create a market for their own products and to advocate for their use. As pointed out by Cline-Cole and Powell (2004), Mansell (2011) and Wade (2002), one of the key arguments for this approach was the bridging of technology gaps, the digital divide, between the Global North and Global South.

The process of creating new gaps

However, mobile phones have subverted the logic of the digital divide, since this gap between Global North and South seems to no longer exist with regard to this new ICT. As stated in the executive summary of the World Bank (2012): 'the developing world is "more mobile" than the developed world' (p. 3, para. 2). In this sense, the mobile phone for development discourse had to find, create or highlight new gaps and divides in order to justify intervention. Thus, nowadays the gap is presented as within each developing country, between urban and rural areas not covered by mobile services. UNDP (2012) clearly states this: 'while mobile technologies have been championed as a means of overcoming the

difficulties of reaching remote populations, rural areas still have large gaps in wireless network coverage' (p. 34). The documents ascribe to mobile phones the advantage of enabling people living in remote areas to access trade information. It is not by chance that most of the mobile policies in the reports are addressed to rural populations. UN and World Bank call these remote areas as 'market failures', because they are not financially profitable for mobile operators to explore. The UNDP (2012) resorts to the 'threat formula' to urge policymakers to carefully consider intervention in such regions: 'these areas could remain uncovered, further entrenching divisions between populations in urban centers and poorer populations in the periphery' (p. 14).

In order to overcome these inequalities, the reports advise, again, governments to invest, subsidize, support or get involved in partnerships with the mobile industry. 'It is here that public investment and public-private partnerships are essential to extend coverage and to ensure not only connectivity but also services and information' (UNDP, 2012, p. 14). With the support of governments, these areas can become, instead of market failures, market opportunities for expanding mobile services.

The discursive ability to find and create other needs and divides has proved to be so prevalent in the mobile phone for development discourse that a new gap is already appearing in the latest reports of the World Bank and the United Nation: the mobile broadband divide. In order to support this claim, the World Bank (2012) states that 'whereas around half of mobile connections provide broadband access in developed countries, in developing countries this percentage is below 10 percent' (p. 103, para. 4). The institutions argue that this division can compromise development goals, since applications, such as mobile money and m-health programs, are now the best ways to achieve improvements in poor countries. According to the UNDP and the World Bank, apps - software that sits in a mobile device and often requires internet connection – 'will empower individuals, enrich their lifestyles and livelihoods, and boost the economy as a whole' (World Bank, 2012, p. 3, para. 3). Therefore, these applications presuppose two main new needs: a structure for wireless connection and for more expensive devices, the smartphones, to take full advantage of the apps. Again, these are necessities that only mobile industries and operators of services can provide.

Thus, it is not difficult to predict that the World Bank will focus its policy recommendations on efforts both to improve mobile broadband diffusion and infrastructure and to scale up smartphones. The recommendation on mobile internet is a significant change compared with the previous World Bank report, published in 2009, which was still focused on access and

advice on how to ensure this. This is a proof that the gaps and needs highlighted by intergovernmental organizations can easily change in few years.

This trend, found in the reports, of creating new divides, provides a practical example of the Foucauldian theory that discourses establishing needs can be elaborated in order to privilege the interests and powers of governments and the private sector. Thus, a soft power is put to work in these policy documents. A gap can always be created, emphasized or renewed in the discourse in order to justify a market expansion. In the absence of the divide between Global North and South that previously dominated the ICT arena, new divides had to be highlighted by international organizations in order to justify policies privileging the expansion of access and, consequently, the mobile industry. By arguing this, I am not denying that people in rural and remote areas of developing countries do suffer from lack of access to cell phones or that mobile broadband should not be made available in these areas. What this study argues is that these deficiencies can be picked out and strategically highlighted in the mobile for development discourses to favor some specific interests, ideologies and powers of both intergovernmental organizations and corporations.

An inverted flux of diffusion of technologies and innovations

In a context where developing countries now have 77% of mobile subscriptions in the world, some new applications started to be created in the Global South and are now being exported to the Global North. 'In some cases, such innovations, Ushahidi and M-PESA, for example, are flowing not only across the whole South but also to the North' (UNDP, 2012, p. 40, para. 8). Both the UNDP and the World Bank point out this trend. According to the latter, Sub-Saharan Africa, for instance, has 56 mobile money deployments, while Europe and Central Asia, only have three. If confirmed, this may be the beginning of an incipient inverted flux of diffusion and transfer of technology that challenges the common North-South flow that has always dominated the development paradigm and the modernization and diffusion of innovation theories. As far as the limitations of this research allow, we can see that this is the first time an ICT innovation is flowing from South to North. The reports argue that these applications, designed in developing countries, can better address local problems such as digital iliteracy and difficult of affordability and can also be useful to and taken up by the rich world. Further research, which lies beyond the scope of this study, is needed to verify whether mobiles are consistently reversing this flux of application and innovation. Studies should also clarify whether this apparently bottom-up trend is truly fostering more participatory and alternatives forms of communication for development, as advocated by Freire (1970) and Servaes (2008).

CONCLUSIONS

At first sight, the arguments for recommending mobile phones for development in the reports of the World Bank, the UN and the UNDP seem to point to a change in the discourse of ICTD. The three organizations admit and condemn the trend of portraying every new ICT that emerges on the horizon as a medicine for all the problems in low-income countries. Similarly, barriers to access to mobile technologies, as well as evidence on lack of impact and program failures, are recognized. There is also a concern to recommend bottom-up mobile initiatives respecting local contexts.

However, the Critical Discourse Analysis of the documents suggests that this apparently new speech can be, in fact, mainly a strategy of textual rhetoric. This study shows that the three institutions are aligned in their discourse, which seeks to differentiate mobile phones even more from other ICTs. Textual artifices such as adverbs and problem-solution formulas are largely used to minimize the barriers and the lack of impact evidence. In the end, the reader is led to believe that access to the technology *per se* will straightforwardly enable development.

The technologically deterministic approach is reinforced by the metaphor of a tool, which gives the idea that mobiles are instruments that, once installed in a community, will end poverty and bring about benefits. This is, again, the view that 'knowledge is like light' (Mansell, 2012), so prevalent in ICTD discourses. It resonates with the dominant paradigm (Mansell, 1982) and, thus, the theories on modernization and diffusion of innovation. As expected, in this exogenous model of development, the top-down approach to policies is made clear in the recommendations for leveraging universal access to mobiles. Reports advise governments to enable a competitive environment for a thriving mobile industry which will build the necessary infrastructure for the expansion of the services and, consequently, enable development.

The main justification for placing these improvements in private-sector hands may not be that of bridging the technology gap between Global North and South, as observed in ICTD discourse. In the mobile context, this divide no longer exists, since the reports point out that mobile devices have become more ubiquitous in the developing than in the developed world (UNDP, 2012; World Bank, 2012). In this sense, this study argues that one of the strategies observed in the discourse was the creation of new gaps in order to justify continued advocacy of the expansion of mobile services. According to the documents, the divides in mobile

penetration are now within nations, between rural and urban areas, and between those who have and do not have access to mobile broadband and more expensive handsets such as smartphones. The strategy of changing gaps suggests that economic interests might be implied in the discourse. This is reinforced by textual artifices to hide the lack of evidence of impacts, which are recognized by the literature. A discourse analysis on the arguments of companies investing in mobile services, such as Vodafone, would clarify whether these corporate interests align with those ones of the international organizations scrutinized here. Since handsets are being recommended without enough evidence, more impact studies of mobiles on development are also highly advisable to better orientate investments in programs.

This trend of highlighting different needs and gaps to justify policies suggests that discourses on ICTD can be mobile, as the title of this study suggests. They can be created or changed to serve the power and interests that are on the table. This is done mainly via the discourses of the organizations that have the authority to recommend policies. Thus, this is an empirical example of the discursive power referred to by Foucault, who argues that texts can hide interests and powers - in this case those of the intergovernmental organizations, governments and mobile industries.

In this sense, the selection of discourse analysis, specifically CDA, has proved instrumental in unveiling this changing gaps trend. Since this method does not allow generalizations, however, this study cannot claim that this movement is happening in the reports of all multilateral organizations or with all ICTs for development. Hence, further research is needed in order to evaluate whether this strategy of creating ever-changing gaps is a practice that has long been occurring or one inaugurated in the new mobile context. This reinforces the importance of turning the focus of discursive analysis to the specificities of mobile devices with development purposes.

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Chapter II: Trends in connectivity and affordability

1 In order to assess the scope for ICTs in the enterprise sector to contribute to reducing poverty, a natural starting point is to consider the extent to which enterprises have access to different ICTs. The analysis shows that the connectivity situation varies greatly by country. In addition, the cost of using different ICTs also differs, with obvious implications for enterprise use.

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2 Access to most ICTs continues to grow in poor countries, but at very different rates depending on the technology. Growth also varies by region and income level. Access to fixed telephone lines in the poorest countries is extremely low and almost negligible in rural areas. By contrast, mobile access deepens each year as networks extend to more of the formerly unreachable. After a radio or a television set, the next most likely ICT device found in poor households is a mobile phone. According to data from the International Telecommunication Union (ITU), average global mobile penetration stood at 68 subscriptions per 100 inhabitants at the end of 2009. It is expected that the total number of mobile subscriptions will reach 5 billion in 2010. Penetration in both developed and transition economies now exceeds 100 subscriptions per 100 inhabitants while in developing countries it stood at 58. In the LDCs, there are now on average more than 25 subscriptions per 100 inhabitants.

3 In rural areas, increased access to mobile phones and associated applications and services may have a particularly important impact on poverty. Rural populations in low-income economies often lack access to fixed telephony. While mobile penetration in rural areas is rising, it is still low in some least developed countries (LDCs). In fact, at the end of 2008, almost half of the rural population in the LDCs was still not covered by a mobile signal. Thus, despite improvements, there is still scope for further expansion of mobile coverage in areas where many poor people live. Some LDCs (e.g. Liberia and the United Republic of Tanzania) have been more successful than others in raising the level of mobile penetration, partly as a result of more competitive wireless markets. In these cases, the reach of mobiles appears to extend to those defined as living in poverty.

4 Increased ubiquity of mobiles is creating new opportunities for ICTs in the enterprise sector to contribute to development and to reduce poverty. On the back of more widespread mobile connectivity, a wealth of non-voice applications and services has sprung up, including text and picture messaging, Internet access and money transfer services. Mobile-money services are of particular importance for entrepreneurs that are operating in locations with limited banking services. They have also been found to be far cheaper than both formal banks and informal options, especially for low value transactions.

5 Penetration rates are considerably lower in the case of most ICTs other than mobile phones.

For example, personal computer (PC) use in low-income countries is extremely low and virtually negligible in rural areas. Furthermore, limited coverage of fixed telecommunications, electrification and PC ownership has seriously inhibited fixed Internet access and use in these countries. In addition, the Internet has skill prerequisites (notably literacy) for its use that many of the poor do not possess. UNCTAD data show that Internet use is also limited among micro-enterprises. For example, in Azerbaijan, Egypt, Jordan, Lesotho and Mexico, less than 1 in 10 micro-enterprises uses the Internet, and less than 1 in 25 has a web presence. In the case of broadband subscriptions, ITU data point to a massive gap between developed and developing countries, and in LDCs, fixed broadband barely exists. A person in a developed country is on average over 600 times more likely to have access to fixed broadband than someone living in an LDC.

6 At the same time, the use of mobile phones to access the Internet is growing rapidly and may eventually become more prevalent in developing countries than in developed countries. In East Africa, for example, Internet access via mobile phones now far exceeds fixed Internet subscriptions. This underscores the potential for mobile phones to transform Internet use in the developing world. While costs of Internet-enabled handsets and mobile Internet user charges need to come down further, and while the range of services available needs to widen, the potential is apparent. With some encouragement, mobile Internet is likely to emerge as a useful tool also for the poor and for micro-enterprises.

7 Though a growing number of people are gaining access to ICTs, particularly mobile, usage is sometimes constrained by high prices, particularly for the poor. This inhibits the full development of ICTs as poverty reduction tools. In the case of mobile telephony, there are wide variations in usage costs across developing countries. The most affordable usage charges can be observed in South Asia. India, for example, has some of the lowest "prepaid" prices. Wholesale termination costs in India (as well as in other South Asian nations) are among the lowest in the world and service taxes are far below those in many other developing countries. India has also been a pioneer in reducing operational and investment costs which contribute to lower prices. Revenues are generated using low tariffs but high volume. As a result, an Indian subscriber spends much more time talking on the mobile than his/

her counterpart in many other developing countries. From the perspective of low-income users, it would be desirable if the South Asian model spread also to other low-income economies.

8 Lack of electricity is another barrier to ICT take-up for the poor, particularly in rural areas. This is less of a problem for ICTs that use batteries (such as radio) or mobile handsets, which can be recharged using car batteries. However, it poses a challenge for computers. ICT access will remain restricted, particularly among the poor and small and micro-enterprises in rural areas until solutions are found for providing stable and affordable electricity.

APPENDIX D

Example of an excerpt from the chapter that links <u>evidence of the impacts of mobile phones on development</u> (World Bank, 2012)

Report: Information and Communications for Development: Maximizing Mobile.
Source: World Bank. (2012). *Information and Communications for Development: Maximizing Mobile*. Washington, D.C
Full text:
http://siteresources.worldbank.org/EXTINFORMATIONANDCOMMUNICATIONANDTEC
HNOLOGIES/Resources/IC4D-2012-Report.pdf
Pages: 11, 12, 13

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1 Mobile communication has arguably had a bigger impact on humankind in a shorter period of time than any other invention in human history. As noted by Jeffrey Sachs (2008), who directed the United Nations Millennium Project: "Mobile phones and wireless internet end isolation, and will therefore prove to be the most transformative technology of economic development of our time."

2 The mobile phone has evolved from a simple voice device to a multimedia communications tool capable of downloading and uploading text, data, audio, and video—from text messages to social network updates to breaking news, the latest hit song, or the latest viral video. A mobile handset can be used as a wallet, a compass, or a television, as well as an alarm clock, calculator, address book, newspaper, and camera.

3 Mobiles are also contributing to social, economic, and political transformation. Farmers in Africa obtain pricing information via text messages, saving time and travel and making them better informed about where to sell their products, thereby raising their incomes (World Bank 2011a, 353). In India barbers who do not have a bank account can use mobiles to send money to relatives in villages, saving costs and increasing security (Adler and Uppal 2008, 25). Elections are monitored and unpopular regimes toppled with the help of mobile phones (Brisson and Krontiris 2012, 75). Texting and tweeting have become part of the vocabulary (Glotz, Bertschi, and Locke 2005, 199).

4   Developing countries are increasingly well situated to exploit the benefits of mobile communications. First and foremost, levels of access are high and rising. The number of mobile subscriptions in low- and middle-income countries increased by more than 1,500 percent between 2000 and 2010, from 4 to 72 per 100 inhabitants (figure 1.1a). Second, the age profile of developing nations is younger than in developed countries, an important advantage in the mobile world where new trends are first taken up by youth.[1] Those under age 15 make up 29 percent of the population in low- and middle-income economies but just 17 percent in high-income nations (figure 1.1b). Third, developing countries are growing richer, so more consumers can afford to use mobile handsets for more than just essential voice calls. Between 2000 and 2010 incomes in low- and middle-income nations tripled (figure 1.1c). Fourth, the mobile sector has become a significant economic force in developing economies. Mobile revenues as a proportion of gross national income (GNI) rose from 0.9 percent in 2000 to 1.5 percent in 2010 (figure 1.1d).

5   These changes are creating unprecedented opportunities for employment, education, and empowerment in developing countries. Local content portals are springing up to satisfy the hunger for news and other information that previously had been difficult to access. The nature of the mobile industry itself is changing dramatically, opening new opportunities for developing nations in designing mobile

applications and developing content, piloting products and services, and becoming innovation hubs. Trendy mobile products and services may be launched in Silicon Valley or Helsinki, but mobile manufacturing usually takes place elsewhere, creating huge opportunities to service, support, and develop applications locally. While key mobile trends are generally adopted around the world, regions such as East Asia are forging their own path for content and applications. New mobile innovation centers are springing up in Beijing, Seoul, and Tokyo, with expertise in specific markets such as mobile gaming and contactless banking.

6 The emergence of mobile broadband networks, coupled with computer-like handsets, is causing rapid shifts in the ecosystem of the sector. The bond between mobile operators and users is loosening as computer and internet companies invade the mobile space and handsets increasingly offer Wi-Fi capability. Online stores have created a new way for consumers to add content and applications to their mobile phones. Mobile operators are struggling to keep pace with an explosion of data, while networks are converging toward Internet Protocol (IP) technologies and relying on content and data to substitute for declining voice revenues. An increasingly hybrid wireless communications ecosystem will evolve over the coming years.

7 Although mobile communication is rapidly advancing in most parts of the world, a significant segment of the world's population remains unable to use the latest mobile technologies. Mobile broadband coverage is often limited to urban areas, and current smartphone prices are not affordable for many. Nonetheless, developing-country users are using what they have. Text messaging, mobile money, and simple internet access work on many low-end phones. An emerging ecosystem of local developers is supporting narrowband mobile communicating through scaled-down

web browsers, text messaging, social networking, and pay-as-you-go mobile data access. For many users, especially in rural areas, these changes are happening where finding the electricity to recharge a phone is more difficult than purchasing prepaid airtime.

8 These developments have major implications for the state of access to information and communication technologies (ICTs) in the 21st century. Rich countries have the luxury of both wired and wireless technology, of both personal computers (PCs) and smartphones. Developing countries tend to rely mainly on mobile networks, and phones already vastly outnumber PCs. Applications have to be different to work on small screens and virtual keyboards, while convergence is happening apace. The developed world is also now becoming "more mobile," with average screen size shrinking; while the developing world is now becoming, "more connected," forging ahead with the shift from narrowband to broadband networks on a mobile rather than a fixed platform. Demography is on the side of the developing world, and the economies of scale gained from serving these expanding markets may push the ICT industry as a whole in the direction of a post-PC, untethered world.

9 One of the challenges facing a report of this nature is that the industry is evolving so rapidly. What is written today is often outdated tomorrow. In addition, given the novelty of many developments and a lack of stable definitions and concepts, official data are scarce or fail to address important market trends. Information from secondary sources is often contradictory, inconsistent, or self-serving. Information about mobile culture is particularly scarce in developing countries. Nevertheless, certain trends are visible, and this opening chapter explores key trends shaping and redefining our understanding of the word "mobile" as an entrée to the review of different sectors in the chapters that follow.

Example of an excerpt from the chapter about recommendations of public policies (UNDP, 2012)

Report: *Mobile Technologies and Empowerment: Enhancing human development through participation and innovation*
Source: UNDP (United Nations Development Programme). (2012). Mobile Technologies and Empowerment: Enhancing human development through participation and innovation.
Full text:
http://www.undpegov.org/sites/undpegov.org/files/undp_mobile_technology_primer.pdf
Pages: 38, 39, 40

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7. Typology of Countries for UNDP Programming

1 UNDP should continue to expand its use of mobile technologies to support programmes and projects that promote human development. From the start, it should be clear that mobile technologies are not a panacea nor can they alone have substantial development impact. On the other hand, both new and ongoing development programmes can benefit from their use if the introduction of the technologies is not done at the expense of planned or established development outputs and outcomes. Finally, investments in mobile platforms for development will pay off better if they can piggyback on ongoing ICTD and e-governance programmes that can directly benefit from innovations that bring services and information to stakeholders.

2 A careful examination of the current status of many developing countries in terms of their position in the HDI, their progress on the MDGs, and the cost of mobile phones and coverage can help identify entry points for deploying mobile technologies in development programming (see figure 7). In general, there are clear opportunities to strengthen ongoing programming and introduce innovations that can make a critical difference in countries with conditions such as:

- Low to medium ranking on the HDI

- Low levels of transparency and accountability

- Crisis and post-conflict situations

- Poor logistical coordination of data collection and supply chains

- Medium to high mobile telephony coverage

- Low to medium price basket for mobile services in proportion to average income

- Low calling and SMS costs

- Positive trade-off between potential impact and costs/infrastructure constraints

- Have ongoing UNDP or other development-related projects and programmes

3 As expected, it is usually the case that countries (and communities) with the greatest need for development assistance are also those that face the highest mobile usage costs and poor network coverage — as illustrated in figure 7 — although there are also plenty of exceptions. For example, Gambia has an HDI of less than 0.4 but has about the same mobile phone subscription rate as the United States. Hence, not all LDCs are necessarily 'less developed' in terms of mobile technologies. Finally, there is also evidence that when it comes to access to communication and information networks, the costs for mobiles globally continue to fall in real terms.

7.1 Programming in Low Human Development Contexts

4 Countries with low human development present a complex cost-benefit analysis, given the relatively high expense of mobile telephony and the potential impact of the use of mobiles on critical development problems. Although, mobile services in this group of countries are relatively costly, projects employing mobile technology can reduce operational expenses by reducing fuel-and-cost-dependent travel and labor-intensive processes. Projects in these contexts should be designed to emphasize citizen access to services through facilitators trained to operate mobile technology, as opposed to assuming that citizens need to own an individual mobile device.

- Relatively low mobile service costs (less than 15 percent of average income): Djibouti, Ethiopia, Guinea, Ghana, Senegal, Yemen

- Relatively high mobile phone subscription (over 60 percent of population): Benin, Cote d'Ivoire, Gambia, Ghana, Kenya, Mauritania, Senegal

- Ongoing UNDP ICTD programmes in low human development context in 2010: 67 projects in 29 countries spending $79 million (excluding Afghanistan)

7.2 Programming in Medium Human Development Contexts

5 A number of countries within the medium human development spectrum are well-positioned for mobile phone development initiatives. Since these countries also maintain moderate rates of income, literacy, and mobile device ownership, projects designed for mass participation, such as crowd-sourcing, are appropriate in these contexts, in addition to projects where citizens can access public services via a mobile device.

- Relatively low mobile service costs (less than three percent of average income in 2009): Botswana, China, Maldives, Sri Lanka, Thailand

- Relatively high mobile ownership (more than 100 percent of population): El Salvador, Maldives, Morocco, South Africa, Surinam, Thailand, Vietnam

- Ongoing UNDP ICTD programmes in medium human development context in 2010: 70 projects in 33 countries with expenditures of $38 million

8. A Glimpse Ahead

6 There is indeed potential in the use of mobile technologies to support and enhance development outcomes. Yet, most of this potential is only starting to be tapped while mobile technologies and applications are rapidly evolving, and a number of challenges still have to be overcome.

7 It is essential not to lose sight of the fact that mobile technologies are enabling tools that can support the work of and interaction between people and public actors. Certainly, they do not replace the need for appropriate policies and programmes and stable governance systems. But they do offer new alternatives to address traditional development gaps and specific development targets. Mobile technologies can also transform the way in which governments interact with citizens, stakeholders and people in general, and vice-versa, while offering new mechanisms to enhance public service delivery, and increase transparency, accountability and trust in public institutions.

8 The mobile usage explosion in the South has been accompanied by a comparable shift in the direction in which innovation is taking place in the social use of mobile technologies. Until recently, the main path of innovation diffusion was from the North to the South, but this is changing. Nowadays, social innovators (both for-profit and non-profit) are working at the local level, developing and deploying local solutions to local development issues. And in some cases, such innovations, Ushahidi and M-PESA for example, are flowing not only across the whole South but also to the North. This is yet another fundamental difference with the traditional Internet model, and with the advent of the large social networks that today dominate such arenas. This emerging trend can have a critical impact in fostering local governance and local development, and further localizing the IADGs.

9 Many of the mobile technology initiatives already underway have tended to remain small in scale, are limited to one-time shots, and are heavily dependent on funding (public or private). That said, local CBOs, NGOs, CSOs and small and medium entrepreneurs are well ahead of local and national governments as well as many development organizations and practitioners. Thus, the entry points for supporting the use of mobiles for development must factor this in and build on what is happening on the ground — and this should lead to new ways in which development assistance can be provided. UNDP and other UN agencies must understand this clearly to be able to use mobile technologies effectively.

10 Sustainability and scalability are still the main challenges to the strategic deployment of mobile technologies for development. Scalability issues are partly the reflection of a gap between what social innovators are doing on the ground and the lack of government action and the need to step in and support such initiatives. Here, it is essential to distinguish between the provision of private and public goods and services, the former having taken off faster than the latter thanks to the involvement of the private sector and the creation of new markets where latent demand was already in existence. For sure, broadening the scope of public administration and service delivery to reach the poorest and most marginalized takes far more than smart mobile applications.

11 In addition to sound and open regulatory environments, governments need to put in place policies, structures and, where appropriate, programmes that can lead to scalable mobile-based initiatives that target the most vulnerable and foster human development, while partnering with social entrepreneurs and civil society actors already on the ground. Without this interaction, the potential for mobile technologies for development will remain just that: potential.

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