MDG Innovations:
Harnessing ICTs to Foster
Social Inclusion and Participation

I. Introduction

The opening years of the 21st century have not provided the most comfortable of environments to the Millennium Declaration and the achievement of the MDGs by 2015. Indeed, economic, social, political and environmental crisis, most global in scope, seem to have multiplied the number of challenges that most developing countries face today, especially least developed and low income countries.

On the positive side, we have witnessed the emergence of a new group of developing countries, the so-called BRICSs (including South Africa), who are becoming economic powerhouses and are getting involved in global socio-economic and governance issues. This shift, which is reflected in the emergence of the G-20 for example, is starting to have impact in the way development assistance will evolve in this century. The playing field here seems to be changing at a faster pace than anyone could have predicted in the past.

In addition, the new Millennium has also seen critical developments and innovations triggered by the impressive evolution of new Information and Communication Technologies (ICTs). The rapid diffusion of ICTs, and mobiles in particular, have put in the hands of billions digital devices that can have the potential of empowering stakeholders, give voice to those who had none before and provide new and innovative solutions and applications to traditional development gaps.

While the evolution and use of ICTs is moving at lightning speed, development agendas are still struggling to harness them in effective fashion and more effectively scale-up and replicate initiatives - and thus accelerate the achievement of development goals and targets at the national level.

The purpose of this paper is to explore the links between ICTs and the MDGs by focusing on both the delivery of basic public services to poor and marginalized communities and the participation of such populations in the setting up and implementation of development agendas. Examples are used to illustrate in concrete fashion how and who can this worn on the ground. the paper then takes a forward looking perspective by suggesting ways in which ICTs can be harnessed as part of the post-2015 development agenda process.

II. Recent evolution of ICTs

Unlike other areas, ICTs are a fast moving target where innovation and dissemination takes place in an accelerated fashion. Looking at the developing of ICTs in the last 12 years, we can perceive two distinct but related visible trends.

Mobile technologies

First, the spectacular growth in the use of mobile technologies and devices on a global scale. Most recent data indicate that there are now over 6 billion mobile subscribers - and roughly 80% of them live in developing countries.

Figure 1:

ICT penetration by human development

- Mobile subscriptions
- Internet users
- Fixed telephone subscriptions
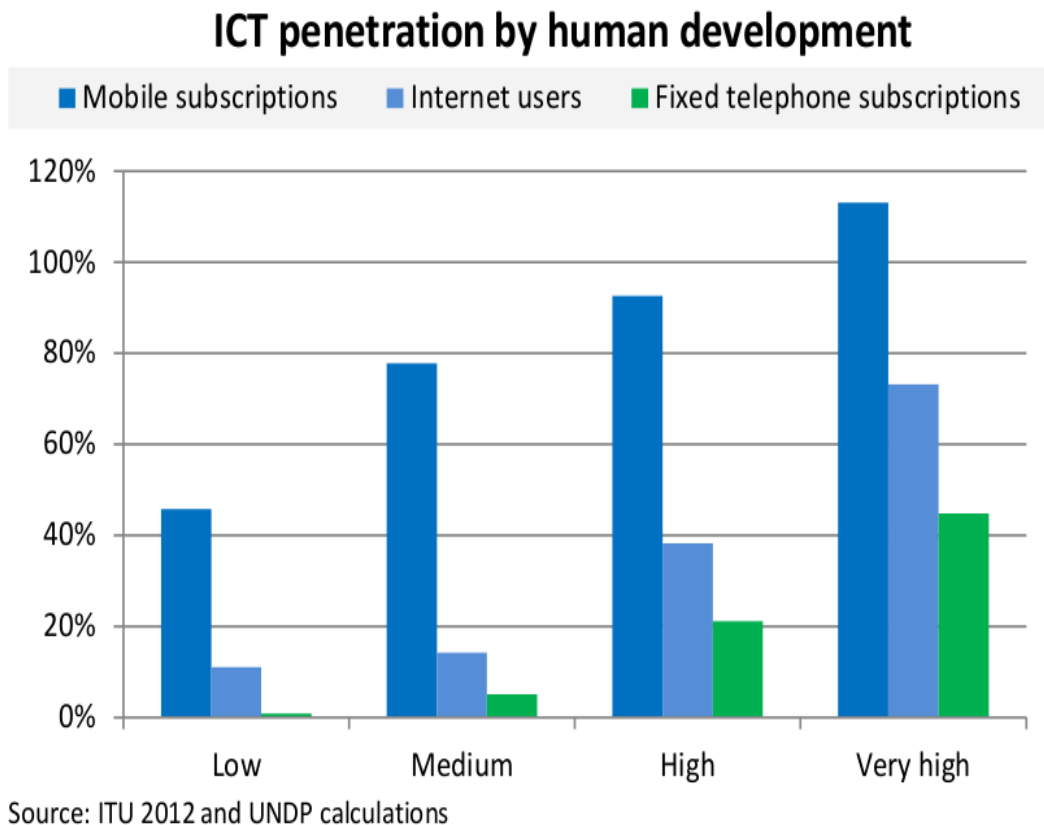
Source: ITU 2012 and UNDP calculations

Figure 1 above shows that that mobile penetration is much larger than than on the Internet and this is true for all levels of HDI. In low HDI countries mobiles are in the hands of 50% of the population and also have the highest ratio (3 to 1) when we compare mobile technologies to Internet use.

Figure 2 (in the next page) gives a more nuanced picture if UNDP development country categories are used as reference but does not change the overall trend.

Historians of technology are quick to remind us that this is the first time that a technology spreads so fast to so many people in so many countries. Observers and pundits are suggesting that access to ICTs has indeed been "democratized". Being that as it may, bear in mind that most mobile users in the developing world only have access to basic mobile devices -as smart phones remain pricey and demand access to expensive high-speed telecommunications infrastructure -or broadband.
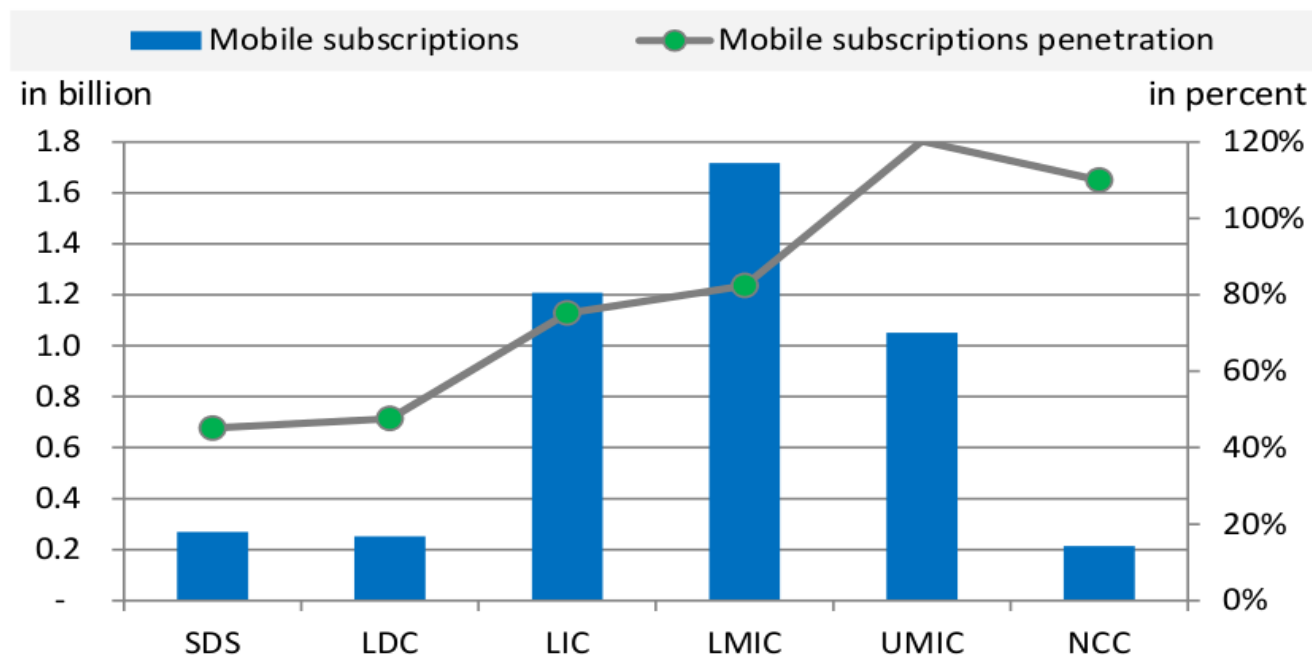
Social media and social networks

The second trend stems from the emergence of *social media* and the so-called

Web 2.0. Unlike the "old" Internet of the 1990s, social media empowers users to craft their own content and distribute it in real time to billions of people on a global scale and at almost no cost, using Web 2.0 platform. Recent estimates suggest that close to 1 billion people are on Facebook and over 500 million are

Figure 2:

Mobile subscriptions by UNDP country categories 2011

Source: ITU 2012 and UNDP calculations

using Twitter -certainly important numbers but undoubtedly overshadowed by mobile penetration rates.

At any rate, mobiles and social media are tightly linked in multiple ways. An example of this, and of the power of the new technologies to impact public space, is the recent "Arab Spring" which capitalized on them both, mobilized millions and triggered political change. Nowadays, it is quite feasible and affordable to have a user of a basic mobile phone reach out to the world using gateways to both the Internet and social networks.

III. ICTs and the MDGs

ICTs as access, infrastructure

Contrary to usual perception, ICTs are not foreign to the MDGs. Indeed, they are integral part of the Millennium Agenda as reflected in target 18 - in MDG 8 - which calls for bringing access to ICTs for all, in partnership with the private sector. If we revisit the impressive mobile access data, it can be argued that achievement of target 18 by 2015 is well under way -and well ahead of other critical targets.

But if this is the case, what role can then ICTs play in a new post-2015

development agenda? A couple of issues need to be highlighted in order to properly respond to this question.

First, target 18 is essentially focused on *access* to ICTs alone. While this is a commendable goal in itself, what are then the links between access to ICTs and all the other MDGs? Clearly, having access to say a mobile device or social media platform does not automatically guarantee better health or education nor does promote say gender equality.

Secondly, and particularly in the eyes of many developing countries, ICTs are a means to an end -and not and end on themselves. In fact, ICTs have the potential of being enablers of human development. However, to get to this point two things are required: 1) To move beyond the *instrumentalist* view on ICTs. ICTs are more than just tools than can yield better efficiency and effectiveness in some development contexts. 2) To overcome the infrastructure-centered view on access to ICTs. The key question here is rather: ICT access for what? Access is after all the *dependent* variable in the human development equation.

ICTs as enablers and the policy gap

These issues are critical to consider as they can in the end affect public investment choices that countries need to make, some times under tremendous pressure. If ICTs are seen as goals then countries will be in a situation where they will be forced to chose between ICT *or* MDG related investments. Unfortunately, the current MDG agenda seems to implicitly take this approach.

This has in turn generated a *policy gap* between mainstream development practitioners and ICT for development proponents. While the former see little to no value in spending limited development resources on ICTs , the latter persistently call for more investments on both ICT infrastructure and ICT applications, regardless of development priorities.

This conundrum can be addressed by positioning ICTs in their actual dimension. The real human development value of the new ICT stems from its *transformational potential*. Indeed, ICTs can provide new and innovative solutions to traditional development goals and priorities not only by increasing efficiency and efficacy of processes and outputs but also by radically changing the ways in which development assistance is provided. Nowadays, this is called innovation.

As we will see below, current evidence indicates that ICTs, when strategically deployed as enablers for development, can be a catalyst that triggers social innovation and fosters the development of solutions that cater to the needs of local populations.

At the same time, ICTs are transforming the way in which development priorities can be addressed by increasingly factoring in human agency and stakeholder participation from beginning to end. In this light, ICTs can *accelerate* the achievement of the MDGs and other national development targets.

IV. MDGs, innovation and participation

MAF as innovation

From the perspective of this paper, the development of the MDG acceleration framework (MAF) was innovative as it aimed at revitalizing the global MDG agenda which by the end of the first decade of the new Millennium was falling behind expectations. In this light, MAF identified four key steps to accelerate MDG achievement by 2015 - one being the identification of so-called "acceleration solutions" which, at least in principle, seems to recall the potential of ICTs as development enablers.

MAF also attempted to go beyond the original MDG agenda on how to harness ICTs to foster the achievement of critical goals. Although it kept the idea that ICTs were most beneficial as infrastructure investments by suggesting widespread broadband deployments for example, it also acknowledged their information potential for some of the core MDG targets. However, MAF did not conceptualize the role of ICTs as enablers for human development in the process.

Innovation in developing countries

Innovation also took off in developing countries, propelled to a large extent by the rapid diffusion of mobile technologies. Areas and regions that before has no access to any ICTs benefited from the deployment of wireless networks which comparatively demanded less capital requirements. Innovative business models (such as not charging users for receiving calls for example) and affordable mobile devices created for the first time true national networks in many developing countries.

As a critical mass of users emerged, traditional entrepreneurs and social innovators got into the picture, also taking advantage of the fact that developing mobile applications was both inexpensive and demanded a lower set of technical skills -relative to traditional Internet applications. A local "market" for mobile apps thus emerged, market that social innovators used to deliver "acceleration solutions" that catered to the overall needs of local communities, municipalities and even small cities. At this level, the identification and prioritization of interventions -the first two steps in the MAF- were not really required as social innovators were part and parcel of the communities and had first hand knowledge of local contexts and core critical issues and bottlenecks.

As certainly this was not always the case, *crowdsourcing* emerged as a reliable alternative to capture the demands of potential beneficiaries. In a nutshell, crowdsourcing allows for the centralization, compilation and aggregation of information and data provided directly by stakeholders in real time on specific theme, topics or issues. Initially used in 2007 to monitor electoral violence, nowadays crowdsourcing can be used for many different purposes. Crowdsourcing is thus a innovative form of participation that is enabled by the development of mobile technologies and social media, and one that an be used in affordable fashion to give voice to stakeholders and aggregate demand.

Participation and the MDGs

Participation is one of the core principles of democratic governance - and one that is enshrined in the human rights based approach to development. Participatory approaches (and methodologies) to development have been around for over two decades now. While the jury is still out on their actual impact, the emerging

question today is the role that the "democratization" of ICT access can play in fostering people's participation in decision-making processes that shape up development goals, priorities and results.

As shown in figure 3 below, citizens have a *dual role* when it comes to their relation to the state and public institutions. The traditional view suggests that citizens are mere "clients" of the state and get services, information and other benefits (and have obligations) depicted on existing social contracts.

Figure 3:

Dual Role of Citizens vis-a-vis the State
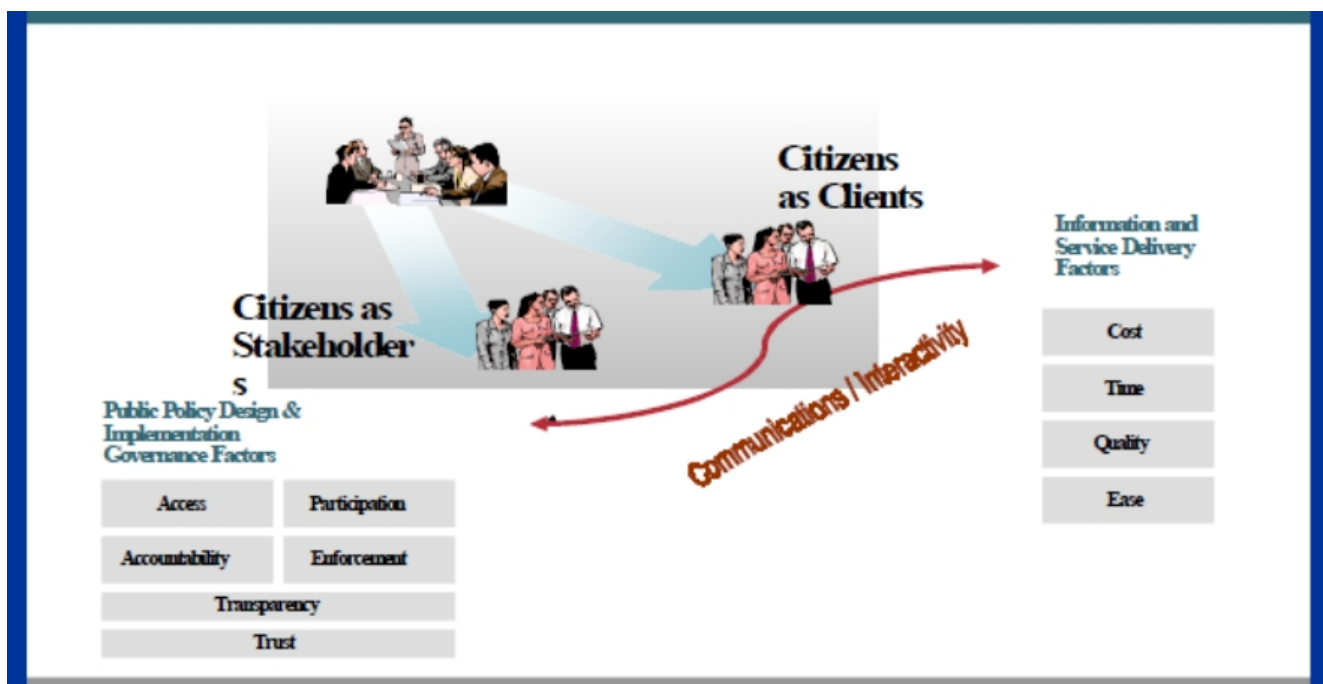
What is usually ignored is the role of citizens as stakeholders. People do have a stake in the governance and political processes that are usually put in motion to design policies and identify priorities for development agendas that will directly impact their own future.

Looking at this framework from the viewpoint of public development investment decisions, ignoring the stakeholder role of citizens creates critical gaps between the supply of public services and information and the actual effective demand by the people. This in sharp contrast to say the private sector's approach who before it invests a single cent in a new market -especially true for developing economies- first undertakes a thorough assessment of the potential demand for products and services by financing sophisticated "market studies".

It is here where new ICTs can make a big difference in identifying demand and l*ocalizing* it, thus better guiding governments on how to maximize bang for the

buck. This will also foster transparency and accountability while increasing the trust of citizens on local, regional and national institutions.

MAF and ICT innovations

With all this in mind, it is now possible to revisit MAF. The four core steps that MAF suggests – initiative identification, bottleneck prioritization, acceleration solutions selection and monitoring and evaluation implementation, could each benefit from the widespread potential of ICTs.

The first two components are essentially process driven where stakeholders from all sectors, and not only governments, should be involved to ensure supply and demand gaps are taken into account. The information and communication aspect of ICTs are key here -and the strategic use of the interactivity they provide. Crowdsourcing these processes is thus feasible by using a combination of mobiles, social media, the Internet and even "older" technologies such as radio and television which are now being recast into the digital domain. The additional advantage of using new ICTs in these processes is the potential to capture more granular information from regions and municipalities thus fostering the potential of localizing MAF and avoiding the typical centralized approach in creating and identifying national development goals and priorities.

The selection of "acceleration solutions" directly relates to the technology and innovation component of the new ICTs. As discussed above, there is now a plethora of ICT solutions that social innovators have created, solutions that unlike other more traditional ones are focused on tackling development gaps. In fact, there are many ICT innovations and solutions desperately searching for problems to solved. Here too, a supply and demand gap persist.

Finally, monitoring and evaluation relates to the capacity of ICTs to capture, compile, aggregate, and analyze and synthesize data. The "democratization" of access to ICTs had opened the floodgates and new data streams which include inputs from millions of people are now available. Open data initiative and "Big data" analytics have emerged in response to have the capacity to manipulate th information and use it for policy making, trends identification, stakeholder priorities, etc. All this can certainly benefit MAF M&E as inputs for assessments can now directly come from beneficiaries at a very low cost and in real time. MAF M&E can in fact be effectively crowdsourced.

V. Selected examples

The example below provide concrete and tangible illustration to many of the points discussed in the previous sections. They also highlight the fact that development innovations are happening in the Global South and diffusing on a global scale.

Ushahidi – Crowdsourcing (http://www.ushahidi.com/)

Ushahidi is a Kenyan initiative that emerged in 2007 with the purpose of monitoring and mapping post-election violence that affected the country back then. Capitalizing on the relative high penetration of basic mobile phones, the initiative allowed people to use text messages (SMS) to report violence to then

centralize and display the information into a (crisis) map in real-time. This form of *crowdsourcing* -that is, the gathering user-provided information into one single platform using a simple technology, is now being used for many other purposes such as food/staple prices, reporting crime and potholes, monitoring human right abuses and corruption, among many others. Today, Ushahidi or similar platforms are used in almost 100 countries.

UNDP Bangladesh – Service delivery for the poor
(https://www.undpegov.org/featured/Bangladesh)

Initially launched in 2006, UNDP's Access to Information programme capitalized on the emergence of the *Digital Bangladesh* agenda to bring ICTs into development policy design and programme implementation. The programme's core goals focused in bringing information and services to marginalized and under-served populations. 60 quick win projects were launched in addition to supporting the deployment of over 4,000 community e-service centers. The programme is still on going and has secured and additional 30 million USD for further implementation

UNDP Madagascar – The wisdom of youth
(https://www.undpegov.org/featured/Madagascar)

Delayed by internal political upheaval in 2009, the project reconfigured itself as a mobile-based initiative to capture youth inputs for policy and decision-making processed. UNDP Madagascar launched an SMS-based platform targeting 14-35 year olds in two regions. Over 44,000 youth in the pilot communities participated, submitting their views on human rights, citizenship, and employment. Over 50,000 text messages were collected. In parallel fashion, a lobbying campaign was started in one of the regions to increase awareness around issues affecting the lives of youth and promoting the integration of young people's opinions in policy processes.

Kenya M-Pesa – Financial services for the poor
(http://www.safaricom.co.ke/personal/m-pesa)

 M-Pesa, another Kenyan initiative, was able in 5 years to reach close to 20 million Kenyans most of which did not have access to banking and/or financial services. The initiative did not involve any of the traditional banks who from the very start were quite skeptical about the financial viability of the. M-Pesa is now being replicated in other countries, although with limited success. Other initiatives such as *The Better Than Cash Alliance (*http://betterthancash.org/*),* initially launched by USAID are promoting similar goals on a global scale. Brazil's own *Bolsa Familia is* also banking on the benefits of mobile financial services for the poor.

UNDP Albania – e-schools - Improving education with ICTs
(http://www.undp.org.al/index.php?page=projects/project&id=92)

By introducing ICTs into primary and secondary public schools, the project aimed at improving both enrollment and quality of education while modernizing the sector. Over 2,000 schools benefited from the programme. In addition, over 30,000 teachers were trained and over half a million students learned how to use new ICT tools and mange digital information to foster academic levels.

I-Cow – Fostering agricultural development with mobile technologies (http://www.icow.co.ke/services.html)

m-agriculture programmes usually have three core components: access to markets; access to agriculture-relevant information; and better management of overall supply chains. I-Cow, yet another Kenyan initiative, provides services to close to 1.6 million milk producers most of which are small and have access to only basic technologies for adequately supporting their own supply chains. Farmers can use a basic mobile phone to get access to information and resources at almost no cost but with large inputs on productivity and market prices. Needless to say, I-Cow is not the only player in this field.

MAMA – Mobile Alliance for Maternal Health (http://healthunbound.org/mama)

MAMA is a 10 million USD initiative supported by USAID and the UN Foundation among others that is now active in close to 50 countries. Health is an information-rich sector that can benefit the most by the use of ICTs and mobiles. Even short text messages can provide life-saving information to women who are pregnant or are about to deliver their children. MAMA directly focus on MDG 5 and is perhaps the best proof on how ICTs not only can scale-up initiatives but also change the way in which development assistance is provided to stakeholders and beneficiaries.

VI. Conclusion: ICTs and the post-2015 development agenda

While it is feasible that the rapid growth of ICTs on a global scale might slow down in the near future, their social and political impact is already imprinted in current society -especially for the youth who will soon be taking over the reins from their elders in many countries. There is no way back to the old way of doing business. Development assistance thus needs to be innovative to remain at the forefront of global socio-economic and political agendas.

The policy gap that this paper has identified needs to be closed once and for all. Traditional development practitioners and policy makers need to embrace innovation while ICT for development proponents must grasp the complexities of sustainable human development. And one way to do this is to crowdsource the issue and let stakeholders themselves make the choices they need for their own sake and benefit.

Needless to say, ICTs are not a panacea. They cannot and will not solve all the critical issues that are on the table today. But they can certainly be an entry point and a catalyst to promote development innovations that are not technology based. After all, innovations are not limited to ICTs and development assistance,

which is currently facing a middle-age crisis, needs to reinvent itself to be more effective, drive change at a faster pace and in the end make a difference for the billions who still today are not enjoying the benefits of 21st century society.

The post-2015 development agenda process is thus a good opportunity to start thinking and designing agendas in this fashion. A new global development agenda cannot be designed in the same fashion as the MDGs were back in the late 1990s, specially not in the age where the participation of non-state actors and global information sharing are common daily practices that continue to gain steam globally.

UNDP has indeed taking positive steps in this regard by supporting the UNDG project that aims at undertaking a participatory approach for the elaboration of the post-2015 development agenda. UNDP is also using the latest ICTs to this through the worldwewant2015.org site and the myworld2015.orgorg initiative -the former using social media tools to engage stakeholders from all sectors and countries, the latter by using crowdsourcing tools to identify the top development priorities across the world.

But this is just the beginning of what could be a complex process given the current governance structure of global development institutions and organizations. They might prove to be a little more difficult to change, independently of how much we all decide to crowdsource.

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