

Agenda: Suramérica

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South America: Trends and challenges for development

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OVERVIEW

Information and communication technologies (ICTs) are driving powerful changes in the way people work, relax, learn, and understand the world they live in. The possibilities that these technologies offer are encouraging more investments. We are following them as weak signals conforming future trends. Acknowledging the new challenges that these technologies bring are the common thread of this issue of Agenda: Suramérica.

The first article reviews what options South American countries have to implement successful egovernment strategies. Despite the progress, these reforms are only happening in specific areas, but they are certainly paving the way towards broader reforms. There is a focus on generating edocumentation processes to improve the management and communication with citizens, but they need to become more aligned with overall administrative simplification. At the end, these reforms should not be an end in itself. Otherwise, without a clear direction for improving government services, e-government and e-documentation reforms will only generate a false sense of modernity in the public administration and not more government effectiveness.

Massive Open Online Courses (MOOCs) are an opportunity to access to top-notch educational contents from all over the world at a low cost. Nevertheless, the region is still in the phase of consuming contents rather than generating the capacities to provide their own online contents. This is changing rapidly since government and international organizations are spotting a huge opportunity to reduce the productivity gap of South American workers compared to the developed world. Nevertheless, more attention is needed to generate adequate contents to our regional reality, languages and disciplines needed to improve productivity.

ICTs are helping native communities to strength their identity and capacities to preserve their own cultures. In culturally diverse countries, this could change the situation of indifference that most governments have traditionally had towards indigenous minorities. What is changing is that these communities' new generations are learning fast to utilize ICTs to revalue their own culture and promote their identity. Our examples show how this is possible, but their impact could be much more effective if public policies accompany these initiatives.

Finally, we present a case study about the perception about big data in the region. Our conclusion: we are still in the wow! phase, although issues about confidentiality and the use of private information will start to shape the debate about big data in the region sooner rather than later.

—Fernando Prada FORO Nacional Internacional

The state in the cloud: The future of e-documentation in South America

By: Fernando Romero

A state in the cloud implies a paperless state and creating e-document platforms is a first step. Countries are introducing reforms to modernize their public administration and ICTs are becoming an integral part. However, catching up with developed countries' administrations requires legal and policy pre-requisites. The only chance to get full benefits of e-documentation is as part of a comprehensive government reform.

A recent Bolivian government's initiative is part of a new wave of e-government initiatives in the region: introducing <u>ICT's in the public administration was announced in November 2013</u>. Since Bolivia was consistently in the <u>last position of the UN regional e-government ranking</u>, the country is seeking to improve the use of technologies in public management and communication with citizens. Other South American countries have already started to use the cloud for these purposes, but these activities have been very difficult and slow to implement.

Chile, whose e-government program is the most advanced in South America started in 2002, yet it is still partially implemented. Peru started its e-government strategy four years later and its broad mandate is still in implementation phase. Building from these experience, Bolivia will likely face resistance, bureaucratic barriers and lack of public funds before the state can provide services to its citizens from the cloud.

Moving processes of the public administration to the cloud can contribute to make the administration more effective if implementation is adequate. Governments in the region have seen an advantage in one aspect of e-government: generating paper savings in the public administration through e-documentation. Therefore, they are investing in technology platforms for recurrent processes in the future.

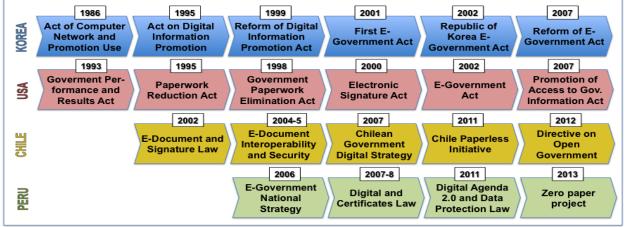


FIGURE 1. Sequence of e-government strategies in Korea and USA, compared to Chile and Peru

Source: Peru e-Government Master Plan, Observatorio Digital de Chile and USA Public Law 107-347-DEC. 17 2002.

The strategy consists on transferring physical documentation into the digital world. Advanced economies began this conversion many years ago. The time it took them to achieve digital documentation gives an idea of what to expect when setting up a paperless state in our region. Figure 1 compares how was the process in Korea and the US, and how it has started in Peru and Chile. The first two countries started to remove paperwork in the public administration before 2000, while Chile and Peru started a similar process more than 10 years later. Using this information, we expect that the process could be completed in Chile and Peru beyond 2020, while Bolivia could take until 2030. It makes sense to simplify paperwork before translating it to the digital world, although it seems that countries in the region are trying to address administrative simplification while setting up a paperless state. This is a mistake.

Related laws to start the e-documentation process have had different scope between these countries. One difference is that Korea and the US designed the whole process with mandatory targets, while countries in our region have been less ambitious. Still Chile, Peru and Bolivia have recommended institutional targets within their strategies, but these targets are voluntary. For example, the Zero Paper Project in Peru expects to target 30 percent of national and regional government offices and just 10 percent of local governments by 2017.¹ However, it is not clear in this strategy when they expect to provide services from the cloud. On the other side, <u>Chile Paperless Project has shown more progress</u> and provides a list to their citizens regarding which institutions have committed to digitalization of paperwork. Bolivia and Peru have not shown the same transparency.

Laws are important but the real challenges are in the details. For example, it is easier to digitalize recurrent processes and paperwork than opening the administration to the citizens to directly accept complex demands or utilizing e-documentation to inform public policy. What to do with this new wealth of information? Sometimes, managing e-documents generates data whose utilization could be not relevant.

That is why simplification of administrative paperwork is key. Storing information will not be a problem, yet we need to be strategic on what information is relevant. Since accessing government will be easier for citizens able to understand digital processes, this may open the door for more demands or generate more recurrent processes, putting governments under more pressure than in a paperless platform.

Advancing towards a goal of a paperless state in the future will also require new capacities. Archivists will need to operate modern software, although some of the more operative tasks could be replaced with low-skill workers. New professions could emerge in universities to attend these demands, but this requires more information about the scope of the reforms and coordination. Training new professionals and public officers must be in parallel with the acquisition of new information technologies.

Beyond e-documentation, e-government also changes the way citizens communicate with authorities. The linear form of communication will become a radial process, where information can be modified, duplicated many times and available to everyone.² This could open new possibilities if new ways to process digital information (big data) advance quickly. For example, digital data could reduce the costs of monitoring processes using historical data. Minas Fácil Expresso in Brazil, an administrative simplification program in 55 remote municipalities, concluded that benefits from process simplification are less visible when the municipalities are located in remote areas.³ A strategy then is to identify quick-wins and start from there.

In Peru, FORO Nacional Internacional (FNI) attempted to introduce big data for monitoring purposes at the Citizen Participation Office of two municipalities. Downtown Lima still registers citizens' demands in paper, and as these demands increase, bottlenecks appear affecting responsiveness. Another small municipality in northern Peru introduced a similar reform. At a very low cost, our team digitalized manuscripts of meetings of neighbors' meetings, thus reducing the time of processing. This is replicable: most municipalities in South America register but do not process information to inform decision-making.

E-government reforms seem more feasible now, and as digital solutions reduce their cost, it will be easier to introduce them in the future. Good politics is always a pre-requisite: these reforms do not bring visible benefits to citizens in the sort-run; opening records show transparency but also put the governments as an easy target for criticism. The race towards a state in the cloud has already begun despite most efforts seem disconnected from overall state administration reform in the region. Maybe it is time to make e-document reform goals mandatory. From there, moving services to the cloud will become more intuitive and possible. But finally, politics are embracing new technologies to improve public administration.

¹ Oficina Nacional de Gobierno Electrónico e Informática - ONGEI (2012), *Plan Nacional de Gobierno Electrónico 2013-2017*, Presidencia del Consejo de Ministros, Perú, Diciembre 2012.

² Feijoo C., Ana María (2009), "La e-administración: el paso de la gestión tradicional a la gestión electrónica", Revista General de Información y Documentación, 2009, vol. 19, 161-171. Valladolid, España.

³ M. Bruhn and D. McKenzie (2013), "Using administrative Data to Evaluate Municipal Reforms: An Evaluation of the Impact of Minas Fácil Expresso", *Impact Evaluation Series* No. 85, Policy Research Working Paper 6368, The World Bank.

Massive Open Online Courses (MOOCs): Challenging traditional learning

By: Nina Augustsson

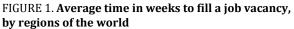
As economies grow, they require new skills to become more competitive. Traditional learning is still beyond the means of the majority of workers in our region, let alone acquiring education from top universities or institutes abroad. This is where MOOCs are becoming the next disruptive education innovation to help South American workers catching up with developed country workers' productivity.

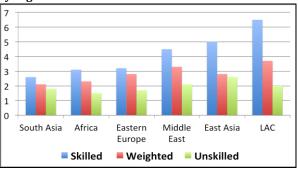
A 2012 study from the World Bank⁴ highlighted the growing gap between what the education system offer and the skills that are valued in the labor market in the Latin America and the Caribbean region.

Moreover, the current stock of skilled workers may not be enough to sustain economic growth and increase the productivity of the economy.

Figure 1 shows one side of this: skilled workers are becoming scarce and difficult to hire compared to other regions. The other side of the story is that incentives to acquire more skills are not well placed since earning premiums of higher education have been declining for several years.

The education system may be partly responsible for not providing the required skills to sustain future economic growth. This is where Massive Open Online Courses (MOOCs) could add pressure for a





Source: Almeida, R. and J.J. Filho (2011), "Demand for skills and the degree of mismatches: Evidence from job vacancies in the developing world", unpublished, quoted in Aedo, C. and I. Walker (2012).

complete overhaul of the way the education system offers a particular set of skills that are valuable in the market. The term MOOC was 'coined in 2008 by a group of Canadian academics to describe the phenomenon of gathering people to discuss a topic online in a structured way. MOOCs have since then migrated to Silicon Valley through prestigious universities and private sector initiatives.

The New York Times coined 2012 as "the Year of the MOOC." Their promoters consider that "nothing has more potential to lift people out of poverty –by providing them with a free education to get a job or improve in the job they have." Others discard MOOC as just "re-institutionalizing higher education [in the US] in an era of budget cuts, sky-rocketing tuition, and unemployed college graduates burdened by student debt." Today the major MOOC platforms are based in the US: EdX started as a non-profit consortium between Harvard and MIT but now include a dozen universities; Coursera is an equity investment from Caltech and UPenn; and Udacity is a company founded by Sebastian Thrun of Stanford. They have been around since 2011-2012 and enroll millions per year. Anyone can register and participate.

Most courses attract tens of thousands of students, which is an irresistible draw for many professors.⁵ Now one can usually chose to audit the course for free and open to the public, or, for a fee, take it for credit/certificate of completion, although often criticized of not being very good at accreditation —<u>"a</u> <u>MOOC is almost designed to make cheating even easier that ever before.</u>"⁶

Though MOOCs originated in North America, two-thirds of their users are from around the world. International users are adapting the courses offered at Harvard, MIT and Stanford to fit their local communities. While the debate about MOOCs in North America has been going on for a few years, the

⁴ C. Aedo and I. Walker (2012), Skills for the 21st Century in Latin America and the Caribbean, Washington D.C., World Bank.

⁵ Audreay Watters wrote a piece in <u>Inside Higher Education</u> about college credentials, wondering whether students will choose to follow a star professor's individual brand outside the walls of the university.

⁶ It is unable of playing the role of the gate-keeper, which is one of the things universities do. Udacity recently announced plans to have students pay \$80 to take exams at testing centers operated around the world by Pearson, a global education company.

debate is just beginning in many places around the world. <u>Sixty eight percent of Coursera's users come</u> from outside the US, with Brazil, India, China and Mexico on the top-ten list.

In Rwanda, for example, Kepler University has organized seminar classes, using the resources and accredited by US universities and online learning will be combined with intensive seminar style learning on campus. Also, University El Salvador has begun teaching a class on electrical engineering, using MIT's edX class and students at the Catholic University in La Paz are showing ways of combining individual online time with in-person group discussions with peers and mentors. Professors say their inclass students benefit from the online materials. Some have rearranged their courses so that students do the online lesson first, then come to class for interactive projects and help with problem areas.

The international aid and academic community is also making use of recent empirical knowledge and research to position them in the MOOC debate. The IFC made a symbolic equity investment in Coursera in 2013 to promote education in emerging markets, and the World Bank has signed an agreement with Coursera to <u>"meet the demand for practical solutions-oriented learning on pressing issues in developing countries.</u>" Furthermore, the US government takes the official role of promoting the use of MOOCs as public diplomacy. US embassies in over 40 countries are hosting "MOOC camp" sessions.

Most of the debate of MOOCs' potential for developing countries, is still mostly taking place in Western news outlets "exporting" MOOCs. However, news such as the full computer science Master's Degree program offered by <u>Georgia Tech</u> via MOOCs at a reduced price, has spread to computer science faculties in developing countries. This trend will continue since MOOC platforms are opening up throughout the world: Spain (<u>UniMOOC</u>), Germany (<u>iVersity</u>), Australia (<u>Open2Study</u>), Brazil (<u>Veduca</u>), China (<u>XuetangX</u>, <u>Ewant</u>), and Rwanda (<u>GenerationRwanda</u>).

The emergence of educational degree alternatives based on free online resources might just be the "leapfrog" solution that allows countries full of undereducated youth to move into the middle classes. But the main challenges remain to figure out how MOOCs can enhance local education in developing countries, instead of competing with national education systems, possibly undermining them, washing over cultural norms and educational traditions. Additionally most classes are also offered in English still.

Other critics fear a potential two-tier system of global higher education, with a small number of elites able to participate in traditional university educational environments —benefitting from small, face-to-face groups in close physical contact with their professors, while the vast majority of students, especially those in developing countries, have to make do with participating in a watered down educational experience delivered through MOOCs. Furthermore, most people that complete MOOC courses are college educated. This is already true in North America. However, just because new technological innovations now benefit a small privileged group, does not mean that this will always be the case.

The capacity critique questions how local initiatives will be able to develop their proper education systems, educate qualified teachers, improve the quality of existing faculty members by merely adopting technologies, developed and maintained by others. The MOOCs might not be the messianic panacea, nor the death higher education as we know it, but there are two ways for policymakers to view opportunities in MOOCs —they can passively participate in the MOOC wave, as consumers of an imported product, or they can it as a strategic opportunity to help develop related local capacities.

More generally, the question is about finding a balance —MOOCs can offer vast resources, while putting to test traditional forms of learning (or schooling) and when it comes to developing your proper digital identity, MOOCs are great alternatives to traditional ways. The open online courses simply should not intend to do the things traditional teaching does, but in terms of resources, the technology is invaluable. We will hear more news like this in the next years: the Inter-American Development Bank will soon start to offer online courses, after signing an agreement with EdX platform in February 2014. These are good news for MOOCs in the region.

Revaluing cultural diversity through ICTs in Latin America

By: Mateo Tavara, Pasko Kisic and Fernando Prada

"Anthropologists estimate that every two weeks a tribe elder dies along with the last remaining knowledge of his traditional language and many other living expressions of their heritage." ICTs are in the front line in culturally diverse countries whose population is willing to preserve their culture for the new generations.

Latin America is a culturally diverse and historically rich continent. Some small native communities are being gradually displaced due to the relentless pace of globalization, which in many cases threats the survival of their unique cultures. However, these same PHOTO 1. Video "Kumbarikira", by "Radio Ucamara"

forces of globalization and the access to new information and communication technologies (ICTs) are playing a role at preserving these cultures and providing a window of opportunity to know about a variety of costumes in remote areas of our continent. This time we are getting help from the new generations that we thought were being 'acculturated' by such globalizing forces.

Native communities represent above 10 percent of the continent's population. According to the Economic Commission of LAC (ECLAC), there are approximately 40 million people living in around 642 indigenous Source: Black and Brown website (accessed: February 2014)



communities. They speak 402 different languages and 26 percent of their communities are socioeconomically and culturally endangered. Yes, globalization is a threat for them, but indifference is the most pervasive threat against their survival as cultural expressions.

ICTs facilitate communication processes and the organization, creation and distribution of information; and the pace at which they are being adopted makes are think that sooner rather than later they will be available even in the most remote zones. Think about the new technologies that Facebook is targeting. It is now investing about US\$60 million to design solar energy powered drones that will stay in the sky for fifty years and operate as Internet hotspots. With plummeting prices of mobile devices, it is now possible to envision a future where even remote communities can access to worldwide content.

On the one hand, ICTs can lead to more consumption, production and distribution of cultural contents, thus helping to disseminate diverse cultural expressions. However, which expressions will be prevalent? Some people tend to think that accessing to ICTs will worsen the situation of remote marginal cultures, mainly by forcing their members to consume alien information, culture, and technologies.

The extent up to native cultures and their members appropriate these technologies and transform ICTs into a dynamic element of their cultural survival is what matters. This entails several conditions. First, their members must have access to ICTs —a technology, and more and more, a market gap. Second, they must have the necessary knowledge and skills to use of them -a capacity gap. Third, the ICTs must provide a tangible benefit for users to capture their attention —an adequacy gap. The following examples of native communities embracing new technologies to preserve their own cultures are maybe a more optimistic interpretation of the impact of such technologies.

Ucamara Radio is an indigenous radio from Nauta in Loreto, Peru. This region is home of the Kukama culture, and some of its members still reside in the Amazon rainforest. As a result of migration and economic forces, the Kukama culture has lost much of its traditions, territory and identity. Nowadays only two generations still speak their original Kukama language. When Ucamara Radio was established to provide a space for the communities' voice, the Kukumas spotted an opportunity. Through a partnership between the radio and the German NGO 'Create Your Voice', they made a musical video "Kumbarikira" to help rescue the Kukama language (see photo 1) —several kids rap in Spanish and Kukuma singing about their interest to learn their ancestors' language. The video, posted on YouTube in July 2013, quickly surpassed 50,000 visits. But its impact goes beyond the region and has quickly become a symbol of regional pride in Loreto. In Lima, the TV political magazine 'Cuarto Poder' made a report about the impact of this video in social networks, thus expanding its influence.

The second case is "Mapuexpress". The Mapuches are one of the oldest ethnic groups from southern Chile. In the late nineteenth century, the Chilean government took possession of the Mapuche territory, resulting in a massive relocation. Lands were assigned to each community, which segregated them from the rest of society. Over 70 percent of them now live in cities of Chile and Argentina. Mapuexpress is a virtual platform to provide information regarding the efforts to revaluate the Mapuche culture. On the one hand, it gives Mapuches a space to meet and know the elements of their culture regardless their physical **PHOTO 2.** Awás hunting in the rainforest

location. On the other hand, it is a platform for activism and community. Little by little, they are creating awareness in Chile over their current situation, their history and their political demands for recognition of their rights.

The third case describes ICTs as powerful communication tools to raise awareness about the situation that many native communities face; and how international organizations can play a role. Thus, targeted communication campaigns, along with communities' appropriation of the messages, are having immediate impact in the survival options of a native community. This is the case of the Awás, a Brazilian indigenous population, now known as "the most threatened Source: Survival International (accessed: February 2014)





tribe on Earth" due to the pace at which their lands and population reduced by illegal loggers and ranchers (photo 2). The NGO Survival International launched a media campaign primarily through its website in order to raise funds for the Awá. What they achieved on January 7th, 2014, after six months of insistent campaigning, was a military operation to intervene in favor of the Awás.

Our last case involves the last five elders that still speak the Iskonawa language in the Ucavali rainforest in Peru. A small group of academics from the Catholic University have been in a race against the clock to systematize their language and preserve their cultural expressions. However, a TV report that won a prize was the most effective tool to get the attention of the government: the Ministry of Social Development and Inclusion has now included these five elders in the cash transfer program 'Pension 65' targeting poor people above 65 years old. One kid, probably the last one being raised under the Iskonawa traditions, will have the opportunity to receive formal education.

These cases show how ICTs contribute to strengthen and revalue native cultures. They also demonstrate that it is not the tool what strengthens identities and cultures, but how the communities appropriate and make use of these tools for that purpose. While ICTs will figure prominently in the political agendas over the next years, their impact over the livelihood of native populations will not exist unless public policies embrace these causes. Technologies and, in general, economic and globalization forces, have the power to destroy weak native communities' identities. These examples show that, instead, they can be valuable complements in the native communities' struggle for recognition and survival.

What makes more sense to support in the next ten years? First, there is the right of communities to communicate their situation and make use of ICTs for that purpose. Civil society organizations working in these remote areas, along with the academia, could be powerful actors to raise awareness. Second, invest in mechanisms that allow communities to embrace ICTs to cement their cultural identities. Third, work with the new generations because they tend to adopt these technologies faster with less resistance, and multi-cultural education systems are a needed response. Above all these reasons, we need to show respect for the diversity of people and their cultures: our indifference will only accelerate their extinction.

Miscellany Section

The expansion of private conservation areas in Peru: An opportunity for rural development?

Private conservation areas (PCA) are spaces that the government recognizes as intangible due to their environmental, biological and landscape features. They contribute to the conservation of biological diversity and climate change mitigation, and are also ideal spaces for tourism, sustainable use of natural resources and the promotion of scientific research. Nowadays, <u>Peru has 69 private conservation areas of 270,000 hectares</u>, three times more compared to 2009. The expansion of the National System of Protected Natural Areas (<u>SINAPE</u> in Spanish) and the <u>revaluation of natural heritage</u> are partly driving this change.

This expansion opens a development opportunity if the country establishes an integrated management system of PCAs oriented to sustainable rural development. An integrated management could invest resources in promoting these areas as tourist destinations, offering community-led tourism activities and protection mechanisms to obtain better valuation of native flora and fauna. By linking different private PCAs operators, this initiative could improve competitiveness of native products of the biodiversity through a common campaign to introduce these products in domestic and international markets, benefiting also surrounding native communities. Moreover, PCA operators could work together to tap in the future market of carbon capture. These new businesses are multiplying and joint efforts of operators could strongly benefit stakeholders at the local and regional level, and provide a model for environmental management to other countries in South America and other regions.

Urban farms and urban agriculture in Latin America

Urban farms are part of a <u>food revolution</u> of harvesting food in urban areas, according to FAO. In Venezuela, urban farming initiatives are improving through the "<u>Agro Venezuela</u>" program, which currently helps 460 families in Barinas region [note of editor: no further information of this program as of January 2014]. In Peru, an urban farm model is also helping to <u>make the final tranche of the electric train in Lima more beautiful</u> and train operators will create more farming products to benefit the population of the Villa El Salvador district. In Argentina, <u>Rosario's urban agriculture project</u> has a number of activities that disseminates knowledge to create gardens. In Chile there are <u>39 urban gardens around Santiago de Chile</u>, now known as the 'urban agriculture network'.

Urban farms have different goals: reconverting urban spaces to provide an alternative mean to increase households' income, managing land sustainably, improving the city landscape, and creating knowledge about urban farming productivity. According to FAO, urban farming could be as well part of a <u>strategy of poverty reduction</u> and a viable alternative for improving food security and nutrition in impoverished urban areas. Using public or private spaces for community gardens could promote other businesses based on agricultural knowledge and create jobs. Nevertheless, most of these projects have difficulties to fulfill multiple goals and objectives: providing technical assistance for farming could be one, but these projects also seek to create management capacities in the communities, preserve crops and water supplies, and introduce products to commercial food markets. Low-income urban areas in South America have been targets for these initiatives but creating scale to compete in food markets has been the most difficult challenge to achieve. When this occurs, urban farming may reach its potential for poverty reduction.

'Warm Houses' in the Andes: A technology package for vulnerable households

A public-private project named '<u>Warm House</u>' in Peru is addressing the problem of cold waves in the Andes. By adapting homes located in high altitudes to work as 'greenhouses', families can cope with strong cold waves in the Andean nights. The secret is a package of technologies: each house gets 'warm walls' (reinforced walls with insulation materials), 'improved kitchens' (that reduce smoke and heat the house), and a roof insulation system. The Catholic University of Peru, designer of the program, has shown <u>positive results</u> and other partners are committing their support. For example, the national government is testing a pilot in 100 houses in Puno, in southeastern Peru —one of the most affected

regions. There, <u>34 children died</u> from pneumonia in 2013 and almost 70,000 people went to local hospitals suffering from acute respiratory infections.

'Warm houses' has potential for replication in other parts of the Andes. Above certain altitude, native population lives in mud-houses with inadequate insulation. Investing around US\$1,600 per house, the 'warm house' project offers an alternative. Nevertheless, the real problem is that not many families can afford such amount, thus requiring additional funding from the public sector or donations from the private sector. While the benefits on health and quality of life are visible once the houses improve, the high costs threat medium- and long-term sustainability. The lessons of the 'improved kitchens' initiative could be applied here to improve the technologies through partnerships: in the next ten years the public and private sector should invest resources to develop cheaper and effective alternatives against cold waves, and guarantee a reasonable scale to also have a commercial impact. In the meantime, the government should continue to assist the most urgent cases, like in Puno.

South America in the eyes of the world: Civil society engaging the COP-20

Lima will host the <u>Conference of the Parties</u> on Climate Change (COP 20) in December 2014. This event will bring government representatives, civil society organizations, and private sector delegates from 194 nations in order to discuss climate change issues and preliminarily negotiate for a definitive agreement at the COP-21 in Paris (December 2015). Peruvian civil society organizations have taken leading roles in the organization of the summit. For example, the Grupo Peru COP-20, led by the "<u>Movimiento Ciudadano frente al Cambio Climatico</u>", groups several like-minded civil society organizations. Now, a group of young people have presented the "<u>Grupo Impulsor Peru Joven Rumbo a la COP 20</u>" to give youth groups and their networks a voice, as well as the possibility to coordinate actions with the Peruvian government.

These groups will have a broad participation at the COP 20 to establish their positions concerning climate change risks and policies. Given the opportunity, this summit will provide new ideas and an innovative ground for social experimentation on how civil society organizations, particularly youth organizations, have the capacity to engage in medium and long-term decision processes regarding key development issues. Their platforms are usually more ambitious than official ones, thus their participation could prove useful to introduce key topics in the negotiations of climate change and maintain young people engaged.

Synergies between community development and forest preservation

The Forest Investment Program (FIP) will provide a <u>US\$ 50 million grant</u> to Peru to finance programs and activities contributing to the development of indigenous communities, addressing their quality of life while aiming to reduce forest degradation. One idea is to encouraging communities to gradually improve and manage logging activities in their territories. Puerto Esperanza in the Amazon region is showing promising results. After obtaining a certification for forest management and permits for controlled timber extraction, the Ashaninka community of Puerto Esperanza (Atalaya) <u>managed to sign trade agreements</u> with large, certified timber companies. The community has already covered the costs of investment and begun to reduce their debt obligations with the Amazon Forest Consortium (CFA). Now they can hire their community members and link wages to their sales, as well as allocating their profits to provide inexistent basic services (health, education, drinking water and energy).

Moreover, the Ashaninka organization is seeking to complement this initiative. In November 2013, an event to promote REDD (Reducing Emissions from Deforestation and Degradation) was held in Puerto Maldonado, in southeastern Peru. Their objective was to discuss a REDD proposal from Indigenous Amazon groups. In order to contribute to reforestation, preserve ecosystems and strengthen participation and community land management, such initiative is inviting other key stakeholders, and it will replicate pilot programs in Brazil, Peru, Colombia, Bolivia and Ecuador. Although in a starting phase, these partnerships are empowering communities to propose alternatives to manage their natural ecosystems. Other REDD experiences in Indonesia, Peru, and the Congo Democratic Republic are introducing market-oriented initiatives. It is encouraging to know how these indigenous communities are rapidly embracing these ideas.

Case study: Perceptions about big data in South America

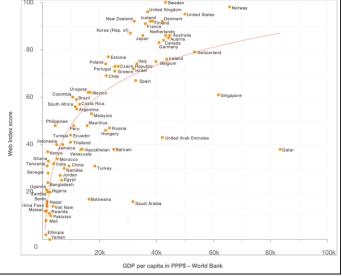
By: Fernando Prada and Hugo Gutierrez

It is easy to think big data is panacea: the region is still in the 'admiration' or 'advocacy' phase for these technologies. This review describes how issues of confidentiality, limits on the use of private information, and the effects of the digital divide shape the future debates about big data in the region.

The World Wide Web Foundation ranks countries according to four criteria of the Web Index: (i) Is there universal access to Internet contents and to what extent countries have invested in infrastructure that

support access; (ii) Do citizens enjoy rights of free FIGURE 1. Web Index vs. GDP per capita 2012 access to the Internet, express their opinions, and protect their privacy; (iii) Is there relevant content available regardless of location, language or capacities; and (iv) Is the Internet shaping social, economic, environmental and political processes by empowering citizens? Figure 1 compares the Web Index and GDP per capita, describing a positive relationship and showing that Latin American countries are still part of the mid-table.

This explains why open data is still a promise in the region, despite advances in the last ten years. Infrastructure is poor beyond big urban areas and prices are not affordable for most. Local and relevant content is scarce, although this is an area with rapid progress. There is, in most countries, good legislation about openness and transparency of public and private institutions data, yet their implementation is slow. In general, the capacity to



Source: World Wide Web Foundation, The 2013 Web Index.

empower citizens through the use of the Internet is limited; although there are examples where citizens promote causes, organize demonstrations and complement (or correct) official media.

A review of recent publications about this topic in the region, particularly from newsletters, blogs and specialized articles, shows that big data is still immature. Despite we see great more interest in topics such as hackatons, open data seminars, and visualization techniques of data, among others; these advances are not coordinated and only a few are beyond the "pilot phase".

This situation is not compatible with the current efforts of governments all over the region to provide information more transparently. There are limitations regarding the reliability and availability of data, but in general, governments have improved transparency. This is what strikes most analysts: there are still few people and organizations interested in analyzing this data, and it is more likely to find these initiatives in alliance with international development banks than as part of government reforms.

Big data is becoming a more visible topic. An interesting area concerns entrepreneurs, since they may have access to a wealth of public data to plan their investment that they are not fully exploiting. Journalist could also improve their analysis of public data, improving the way citizens oversee their governments.

A group of big data advocators is requesting governments to start discussing big data legislation: what will be the conditions under private sector companies will be able to profit from using public data. A special case is banks and telephony/data operators: what are the limits of the use of private information for marketing purposes, for example. Nevertheless, citizens have not started to organize their voice and ideas in a topic that directly concerns them: so far, we are hearing more loudly those voices that may have commercial interest on using consumers' private data.