GLOBAL INFORMATION SOCIETY WATCH 2008

Focus on access to infrastructure

Global Information Society Watch
2008

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PAKISTAN

Bytes For All
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Introduction

A developing nation of over 164 million people,[1] Pakistan faces some of the most unique development challenges in the world. Alternatively listed as an A+ investment country, and then as the "most dangerous place on earth", the country has see-sawed between optimistic economic reports, violence, political instability and uncertainty. While claims of outstanding macroeconomic performance during the last few years abound, the incidence of poverty has, in fact, substantially increased. According to an estimate, close to 57 million people live below the poverty line – and this estimate includes 11 million people pushed below the poverty line over the last three years. The situation is likely to worsen in the years to come, especially in the wake of rising food and oil prices.

Despite all the odds, overall, 2007 saw a strong foreign investment influx, with over nine billion dollars invested in the telecom sector alone (Pakistan Times, 2007). As such, the influence and potential of information and communications technologies (ICTs) has never been more apparent, especially through their effect on the economic and social polity of the country. While Pakistan ranked 63rd with a score of 3.7 out of 10 on a recent e-readiness rating (EIU, 2007), the information technology (IT) and IT-enabled services sectors boast an impressive 61.18% growth in exports, making Pakistan a country to watch very closely. Efforts to bridge the digital divide continue, and the official information until the third quarter 2007 shows considerable progress has been made in the area of physical access. This includes mobile phone growth – over 89 million people now have mobile access (PTA, 2008) – and broadband expansion (150,000 connections). The growth of broadband is being triggered by market demand and aggressive plans of the various commercial players. Some operators are also rolling out nationwide WiMAX infrastructure. Pakistan's teledensity increased from 4% in 2003 to 51% in 2007 (both mobile and fixed lines). Mobile phones have become an important technology in ICT for development (ICT4D) initiatives.

Yet despite the claims by the government that it provides access from the mountains to the coast, there is an evident gap in the provision of access, and a dearth of an ICT culture. Whatever infrastructure is available is driven by market dynamics and commercial interests, and its quality is seriously questionable. As a result, remote areas are still far from enjoying a thriving backbone and the fruits of technology magic. While capacity has increased, the beneficial use of ICTs by the majority is still a grave concern.

Being the frontline state in the "war on terror" and a playground for international powers, Pakistan is suffering acutely as the war takes its toll on all aspects of development. Due to the worsening law and order situation, and in the name of national security, a huge population is deprived of quality access and of ICT-based development opportunities. Censorship and surveillance in the name of national security are on the rise, even in the new democratic regime. This also limits the effective use of ICTs and has negative implications on business and general ICT use.

Convergence of various ICT-related policies is a great challenge. Some very weak, undemocratic and draconian policies, and, above all, a lack of a coordination mechanism among various custodians of different policy sets are other issues. A people-centred approach to policy development initiatives, as well as implementation and monitoring, is totally missing. With the new democratic government in place, it is hoped that steps will be taken in the right direction to bring about change and positive impacts, taking into consideration inclusive approaches to policy development and governance.

Contextualising access

Pakistan seriously lags behind in harnessing the potential of ICTs, mainly due to an outmoded regulatory regime and a lack of focus and coordination in addressing ICT challenges and opportunities. While the new government seems committed to removing barriers to development, and attempting to improve access, the fact remains that a comprehensive, coordinated ICT policy, driven by the input and commitment of all stakeholders and sectors, remains lacking. Unfortunately, the existing policy has not helped any implementation efforts and has failed to show tangible results in any area. Besides neglecting the inclusion of all public and private sector stakeholders, it was not directly linked to other national development plans, and as such lacked the integrated vision and consensus required for real impact.

The fact that the Pakistani population is 67% agrarian and rural means that most of the ICT capacity and culture is only available to 33% of the country's citizens. An even smaller percentage actually benefits from technology because there is a significant lack of local language content, literacy and skills amongst the general public. If the urban regions are analysed, it can be seen that a majority of people are living in poverty. It is only the middle and upper classes that are participating in the ICT industry and related developments.

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1 Population Census Organization: www.statpak.gov.pk/depts/pco/index.html

Therefore, Pakistan has to ask: how much ICT capacity and culture has really been developed? How can the government devise a strategy to help in further increasing ICT adoption and usage by the rest of the population?

After the fall of the military dictatorship, Pakistan is now entering a new era of social and economic development. This era should essentially be driven by innovation and access to ICTs. In the globalised market, where China and India are its major competitors, Pakistan has to shine by overcoming different challenges, such as fighting corruption and inducing good governance practices.

Physical access to technology

The goal to empower citizens with ubiquitous and universal access to ICTs is still a distant dream. This is not to say that there are no current policy initiatives. The Universal Service Policy (USP) developed by the government, with the main objective of providing basic access to telecommunications to poor and underprivileged communities across Pakistan, is a key component of the current ICT4D efforts in Pakistan.

The USP advocates the following goals:

- To make voice telephony affordable and internet access available to progressively greater proportions of the Pakistani population

- To foster conducive conditions and an enabling environment in which teledensity can grow

- To jumpstart the broadband and ICT markets to facilitate e-services.

In terms of penetration of ICT services, targets for 2010 were set as follows:

- 85% of the population should have telecommunications coverage and access to e-services, if desired

- 5% teledensity in rural areas

- 1% broadband penetration

- Preferably one telecentre for every 5,000 people, or at least one telecentre for every 10,000 people in Universal Service Fund (USF) contract areas.

Moreover, by the end of 2015, 95% of the population should have telecommunications coverage.

Unsustainable business models and a lack of local content and real connectivity, however, continue to pose major barriers to the implementation of USP targets. Efforts to utilise ICTs to achieve larger development goals remain mainly on paper. Substantial efforts by both the private sector and key government entities such as the Planning Commission and Ministry of IT will be decisive in determining whether ICTs will play a role in Pakistan's human and social development in the future.

Human capacity and training

Prerequisites to successful ICT programmes are the awareness, capacity and ICT literacy of users. ICT literacy has been introduced into the public school curriculum, but a lack of infrastructure in the schools prevents the new curriculum from being implemented. Many private sector and non-profit organisations, including Oracle (ThinkQuest), Ko-Ordination Group (with 3,000-plus ICT literacy centres), and Pehla Qadam (which offers an ICT-based literacy toolkit), have taken matters into their own hands and are striving towards imparting ICT literacy.

The government, through the Ministry of IT's Electronic Government Directorate, as well as other ministries, has started several very important projects with potentially wide-scale impact, specifically in the areas of transparency, accountability, and facilitation of access to ICTs. However, implementation hurdles and a lack of integration of appropriate agencies have prevented achieving the potential levels of impact to date.

A very vital part of the overall national development vision is the creation of qualified manpower in higher education. Stunning advances made in the last few decades in the fields of IT, biotechnology, material sciences, health sciences, renewable energy and other disciplines are rapidly changing the face of the globe, leading several countries on the path of social and economic development.

The Higher Education Commission (HEC) has undertaken a systematic agenda for reform, which includes categories such as faculty development, excellence in learning and research, relevance to national priorities and improving access.

So far the HEC has been able to set up the Virtual University[2] and Allama Iqbal Open University.[3] The Virtual University is Pakistan's first university relying completely on modern ICTs. It was established by the government as a public, not-for-profit institution. The aim was to provide affordable world-class education to aspiring students all over the country. Using free-to-air satellite television broadcasts and the internet, the Virtual University allows students to follow its rigorous programmes regardless of where they live. Over 750,000 students (growing at 14% a year) currently benefit from the distance-based learning programmes. This is over three times more than all the students of all the other universities put together.

Locally relevant content, applications and services

In ICT-enabled societies, there are two major challenges that every culture and society struggles to deal with: the unimpressive amount of credible, verifiable and accurate information that is available for free download, and the dearth of information that is available in a language that a local population can understand. With the potential for information overload that Web 2.0 offers, if a community is not pushing the right information out, hundreds of thousands of content aggregators are inadvertently recycling bad information which is already out there on an ongoing basis.

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2 www.vu.edu.pk

3 www.aiou.edu.pk

The most challenging task is local language content availability. This space is being filled by individual initiatives, and more materials are being made available for specific applications. These include education, health, training, social websites and other information sites. Innovations like machine translation sites[4] are creating new opportunities for start-ups, as is the release of Urdu Language Tools by the Centre for Research in Urdu Language Processing.[5] It is envisioned that this will be instrumental in outreach of e-services to the majority. The centre, having already successfully developed the Urdu lexicon, speech recognition system and fonts, is now also coordinating the PAN Localisation project for seven Asian languages.

Action steps

- While the government is committed and work has begun on integrated policy formulation, the road ahead is long and arduous. A serious united effort by all stakeholders will have to take place in order for any real progress in the ICT policy area to be made. Isolated pockets of effort must be mainstreamed for scaling up and mass impact. A core group including the USF, Ministry of IT, Higher Education Commission, Pakistan Software Houses Association, civil society and private sector representatives must lay out a long-term roadmap and then serve as monitoring agents to ensure its implementation. Without a cohesive and integrated effort, the small pockets of activity, and the lessons learnt, will never be able to benefit the majority.

- The government has to generate the capacity of its citizens to embrace and engage technology and employ its uses in various avenues of life. Once this has been achieved, a culture of technology becomes the driving force for future ICT industry development and growth. The impact of such an industry has both social and economic effects, as technology becomes a daily life tool rather than simply a gadget-based fascination for its users. Pakistan has never had a strategy nor an ICT policy that focused on creating an ICT culture and increasing capacity on an ongoing basis in line with the changing social and economic environment. This needs to be taken up by all the stakeholders as critical.

- Access to online content is increasing, and with various stakeholders getting a stronger grasp of media convergence, perhaps more incentives could be given for a stronger focus on citizen journalism to generate larger amounts of local content. If there are not enough proactive initiatives taking place to produce fresh content, there are more chances for outdated content to return and haunt us. The web never forgets and stories on it

stick. At the same time, Pakistanis who understand technology are adept at creating innovative platforms which can be shared by larger groups to inspire discourse and instigate discussion for change. The change is already happening, and it is only a matter of time before the creation of local content will be more streamlined.

- The importance of the local language must be stressed at all levels, regardless of whether it is a barrier to entry for a large part of the Pakistani population or not. The preservation of the local language is critical for maintaining a community's cultural identity and history.

- Pakistan's strategic direction should be building a society based on the foundations of creativity, innovation and emerging disciplines. This can only be achieved through increasing the capacity, usage and appropriation of ICTs. It also has to be realised that an innovative knowledge-based economy can only be achieved by cultivating, nurturing and retaining the top talent in the important and emerging creative classes. These include the youth, scientists, engineers, designers, writers and businessmen and women that serve as the source of growth in the country's knowledge economy. Unless Pakistan is positioned both locally and globally as an innovative and technologically advanced nation, it will never be in a position to become a talent magnet and retain its own creative human resource base. Opportunity should be demand-driven. In order to create that demand, the government must dedicate and mobilise its resources and fuel critical change throughout the country with increased transparency and accountability. ■

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4 www.paktranslation.com

5 www.crulp.org

GLOBAL INFORMATION SOCIETY WATCH 2008 is the second in a series of yearly reports critically covering the state of the information society from the perspectives of civil society organisations across the world.

GLOBAL INFORMATION SOCIETY WATCH or **GISWatch** has three interrelated goals:

- **Surveying** the state of information and communication technology (ICT) policy at the local and global levels

- **Encouraging** critical debate

- **Strengthening** networking and advocacy for a just, inclusive information society.

Each year the report focuses on a particular theme. **GISWatch 2008** *focuses on access to infrastructure* and includes several thematic reports dealing with key access issues, an analysis of where global institutions stand on the access debate, a report looking at the state of indicators and access, six regional reports and 38 country reports.

GISWatch 2008 is a joint initiative of the Association for Progressive Communications (APC), the Humanist Institute for Cooperation with Developing Countries (Hivos) and the Third World Institute (ITeM).

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