

GLOBAL INFORMATION SOCIETY WATCH 2008

Focus on access to infrastructure



Global Information Society Watch

2008



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Introduction

Jamaica is known around the world as a picturesque Caribbean country with unique creative talents, athletic prowess and a distinctive and vibrant cultural environment. But beyond the postcard images and engrossing music, it is a country making important strides in information and communications technologies (ICTs), while still wrestling with other important social and economic challenges.

As the largest English-speaking country in the region, Jamaica is a leading member of the Caribbean Community and Common Market (CARICOM). The recorded population at the start of 2008 was 2.68 million, with about 1.3 million of that number representing the labour force (Statistical Institute of Jamaica, 2008). The officially estimated unemployment rate is 10.2%. Approximately 20% of the population is deemed functionally illiterate (Statistical Institute of Jamaica, 2008; UNDP, 2008).

Classified as a country with “medium” levels of human development, Jamaica was ranked 101st of 177 countries in the 2007/2008 Human Development Index (UNDP, 2008). In terms of business development, the country is 63rd out of 173 in the World Bank’s “ease of doing business” index, and 11th in terms of “ease of starting a business” (World Bank, 2008).

The country has made important strides in terms of access to ICTs over the past decade. It boasts one of the highest teledensity levels in the world among both developing and developed countries. Survey data from 2007 confirmed that 94% of low-income Jamaicans were users of the mobile phone (Dunn, 2007), with an even higher level among other social classes. According to the industry regulator, the Office of Utilities Regulation (OUR), Jamaica’s overall phone penetration level was 106 phones to every 100 inhabitants in 2006 (PIOJ, 2007). This is a substantial improvement on fixed-line teledensity ratios of fewer than 20 lines per 100 people less than a decade ago.

This is accounted for in part by a decade-old liberalisation policy, and the resulting price reductions generated through competition in the delivery of mobile telecommunications services. The Telecommunications Act (2000) enabled new competitive entrants to challenge the once monopoly provider Cable & Wireless in a rapidly expanding, but still small, telecoms market. Companies such as the Irish-owned Digicel Jamaica, and the US-controlled consortium Centennial (now MiPhone, owned by America Movil), generated rapid rate reductions for mobile calls, and helped foster the growth of prepaid credit services using heavy media marketing and reductions in the price of handsets.

In line with global patterns, many owners of fixed-line phones switched entirely to cellular phones, leading to an estimated 15% reduction in fixed-line ownership in Jamaica between 2005 and 2007. The entry in 2006 of triple-play provider Columbus Communications, trading as Flow, has brought additional competition to the fixed-line services market, but in a manner that seeks to combine this service with the provision of digital subscriber television and high-speed internet to homes.

Improving ICT access

The country’s global competitiveness in the growth of broadband and other ICT services appears to be faltering, despite promising early trends and the phenomenal expansion in mobile voice telephony. In 2005 Jamaica’s ranking fell from 59th to 85th in the UN E-Government Survey. Similarly, its e-readiness ranking has fallen from 46th in 2007 to 49th in 2008, despite a marginal improvement in the actual e-readiness score. Other recent ICT indices have shown Jamaica to be 45th in the 2006/2007 Network Readiness Index and 54th in the International Telecommunication Union (ITU) 2007 Digital Access Index.

Whereas the World Bank recorded overall internet usage among Jamaicans at 46.4% in 2006, usage among low-income groups is only 21% (World Bank, 2006; Dunn, 2007). In the case of household broadband penetration across all socio-economic groupings, levels are dismally low at approximately 13% (Budde, 2007). As fixed lines are the primary means for household internet connectivity, a fixed-line teledensity of 14.3% (Budde, 2007) foreshadows the relatively low internet uptake. While there is potential for expanding access via mobile broadband, and through new fixed-line provider Flow, effective access will remain elusive without adequate policy provisions and resourcing.

Slow uptake of the internet could also be attributed to the fact that most Jamaicans are lacking affordable hardware for internet connectivity, with a national stock of only 6.7 computer units per 100 persons in 2006 (World Bank, 2006). This contrasts with almost universal mobile penetration, and a high number of television sets, which stood at 70% of Jamaican households in 2006 (World Bank, 2006).

In terms of network connectivity, Jamaica’s telecommunications system boasts advanced international submarine cable and satellite links into local digital networks, including a national fibre optic ring and increasing but still limited WiMAX coverage. The actual usage of this high-end infrastructure, however, is confined mostly to middle- and upper-income persons and businesses. It is expected that

more WiMAX spectrum will become available in 2009 for residential areas, when the results of a spectrum auction in the 2.5 gigahertz (GHz) band begin to take effect. However, this proposal, led by the Spectrum Management Authority (SMA), may require an expansion in the range of spectrum capacity being auctioned if the initiative is to make a real impact on public WiMAX access.

Approaches to universal access

Universal access, in its original manifestation, referred to a “situation where every person has a reasonable means of access to a publicly available telephone” (Intven, 2000). As the concept has evolved, universal access is now also used in reference to internet connectivity. Targeted access initiatives should consider not only physical access to ICTs, but also the cost and training required to increase levels of information literacy and core competencies in the utilisation of digital media. The challenge is to secure not just formal access, but also effective access, as discussed by Wilson (2006) and by Barclay and Duggan (2008). This approach would mitigate the scenario in which, as “developing countries and organizations struggle to keep pace with the competitive pressures of globalization, it is becoming apparent that mere physical access to ICT solves only a small part of the puzzle” (Barclay & Duggan, 2008). Digital effectiveness would be enhanced through fostering an environment of effective access, creative innovation and knowledge-sharing.

Legal and policy reforms

Jamaica’s legal and regulatory framework for telecommunications and ICTs includes the centrepiece Telecommunications Act (2000), which is currently in need of reform. There is also the Fair Competition Act, the existence of the Office of Utilities Regulation (OUR), the SMA, a National ICT Strategic Plan, Universal Access Fund (UAF) provisions and a new e-transactions law. This Electronic Transactions Act, which was approved by Parliament in April 2007, is aimed at promoting confidence and security in electronic transactions. The Act gives legal validity to electronic documents and digital signatures. However, its counterpart pieces of legislation, the Cyber Crimes Bill and the Data Protection Bill, have remained under deliberation for years without approval. This piecemeal and stop-start approach is symptomatic of the tendency, not unique to Jamaica, for ICT legislation to lag well behind industry innovations and create a drag on global competitiveness and on public and investor confidence. The failure to reactivate the Jamaica Telecommunications Advisory Council, provided for in the Telecommunications Act, as well as ministerial changes, may be contributing factors to an apparent lack of sustained public policy coordination in the sector.

The country has however benefited by being the first in the Anglophone Caribbean to begin the process of liberalisation, which started in 1998. Following a period of contentious and protracted negotiations and litigations, the government of Jamaica and Cable & Wireless struck an agreement in

September 1999 for the opening up of the sector to competition on a phased basis. This set the pattern for similar arrangements in other countries in the Caribbean region, and opened the way for the entry of additional regional service providers, initially in the mobile sector.

This process of phased competition took place between 2000 and 2003 (Dunn, 2000). The number of telecommunications licences issued by the government increased from two in 1999 to 426 by 2007. Similarly, the number of internet service providers (ISPs) grew from 45 in 2001 to 80 in 2006 (PIOJ, 2007). Despite liberalisation, and the number of early ISP start-ups, the cost of high-speed internet connections (and attendant hardware systems) has not been reduced significantly enough to inspire an explosion in popular internet usage.

Universal access provisions

An important provision in the Telecommunications Act was the inclusion of universal service obligations (USOs) on provider companies, and the establishment of a Universal Service Fund (in practice referred to as a Universal Access Fund or UAF). However, no clear mechanism existed for the financing of the USOs and the floating of the fund. In 2005, the government mandated a universal access levy to be imposed on incoming international calls. This order, which came into effect in June 2005, required mainly external carriers to pay USD 0.02 per minute for calls terminating on mobile phones, and USD 0.03 per minute to fixed-line phones. The aim of the levy was to provide universal broadband internet services to Jamaicans. By 2007 the UAF had collected JMD 2.556 billion, the equivalent of USD 36.5 million (UAF, 2006; Government of Jamaica, 2008).

Funds collected through the USO levy are used to finance a national e-learning project called e-Learning Jamaica, with the objective of utilising state-of-the-art ICTs in Jamaican schools in order to improve the quality of education. While the e-Learning Jamaica project evidently faces no shortage of money, its pilot phase has made a slow and halting start, with limited reported impact to date on the learning environment and the ICT sector.

Among the challenges faced by the project was limited prior exposure to technology amongst the majority of the island’s teachers in the secondary school system. This meant that the capacity to use the technology effectively did not exist. At least one lesson to be learnt from this experience, even if as yet inconclusive, is that financial resources are a necessary but not a sufficient condition for the growth and expansion of ICT learning in the global South. Careful strategic planning, deliberate and early exposure to information literacy among trainers, and the need for more detailed pre-planning, are among the requirements for successfully launching national-level e-learning initiatives. As it turns out, Jamaica’s central government has started to call on the accumulated levy resources of the UAF for use within the consolidated fund from which general government expenditure is drawn. The e-Learning Jamaica project may in the

future have to compete for resources that were originally designated for its sole use.

E-Powering Jamaica: ICT roadmap

In terms of broader ICT strategy, the overarching approach is articulated in a five-year national ICT plan entitled E-Powering Jamaica 2008-2012 (Dunn & Duggan, 2007). The plan aims at integrating ICTs at all levels to form a knowledge-based and educated society. It identifies eight specific but interconnected areas for strategic emphasis, as set out in Figure 1.

Making the transition

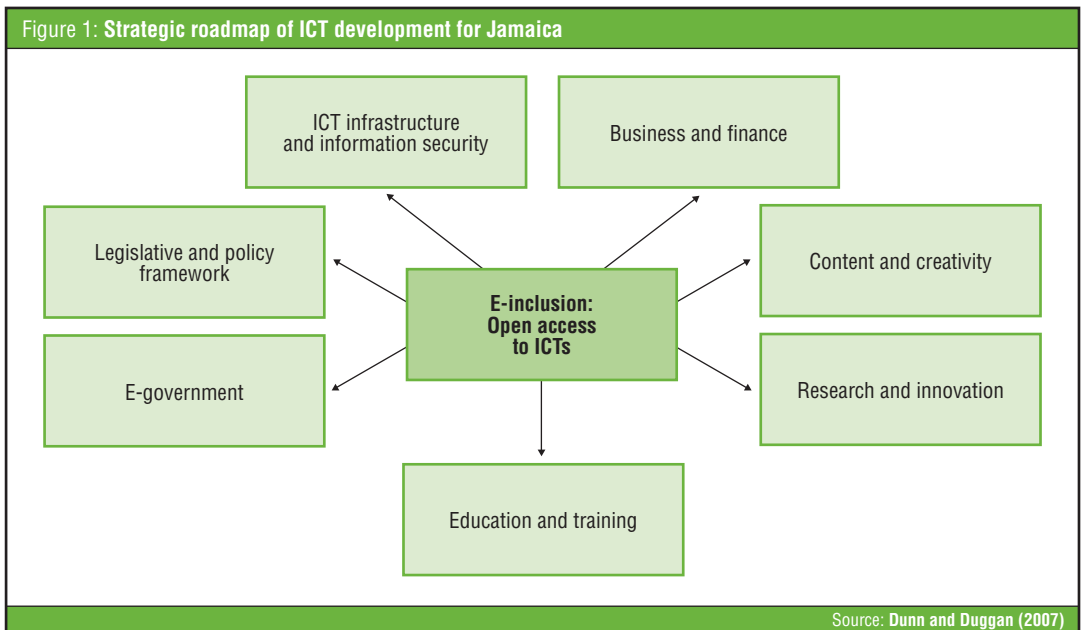
In order to redress the rich-poor imbalance in internet access in Jamaica, gaps in accessibility, availability and affordability of broadband connectivity need to be addressed. There is also a need to better utilise avenues of connectivity that are already available. The mobile phone has a small screen, but can serve as an important gateway to economic and social opportunities for the poor, who have adopted it as their technology platform. Although commonly seen as a channel for “useless chatter”, empirical data are emerging to suggest that the mobile handset is more often a link to economic survival, and is used for things like job hunting, telework, or as a micro-business tool for low-income Jamaicans (Dunn, 2008).

As in many countries in Asia and Latin America, Jamaican entrepreneurs have been experimenting with mobile phone business possibilities, including the resale of credit, phone repairs and “unlocking”, and the marketing of mobile attachments, as well as with m-banking services. These initiatives, like micro, small and medium enterprises (MSMEs) the world over, may hold the keys to increased youth and inner-city employment.

But such initiatives also require capital and management expertise. Agencies willing and available to extend low-interest loans and conduct suitable training appear far too limited in number, and too traditional in their social reach and policies. Yet, as we have argued elsewhere, the mobile phone may offer an opportunity to help transition the mass of low-income users into more widespread mobile broadband usage (Dunn, 2008).

It now appears clear that the Jamaican universal service levy needs to be re-purposed from solely providing e-learning support to schools, to incorporate other goals such as helping finance young and emerging creative industry entrepreneurs in the nascent ICT sector. Low-cost loans for computers, and more widely available management and information literacy training, could help establish more small cybercafés and telecentres in rural and low-income urban areas that are currently underserved. The increase in MSMEs in the ICT sector would not only increase broadband connectivity, but also assist low-income persons with business start-ups that could lead to greater economic independence and global marketing.

There is also the need for greater understanding among citizens of the ways in which the internet and other ICT tools can be empowering as well as socially challenging. An emphasis on youth ICT training, low-cost business start-up credit, encouragement of innovation, and appropriate forms of information literacy in schools are among sustainable ways of seeking to make the transition from the existing high mobile voice penetration in Jamaica to an environment of greater access to other productive broadband applications for citizens and small business operators.



Action steps

Jamaica has successfully transitioned from limited voice telephony access ten years ago to virtual ubiquity of voice telephony within the population. Universal access policies must now be redirected to attaining effective popular broadband access, legislative reforms, and inter-linkage of ICTs with entrepreneurship, cultural products and improved services delivery. Some of the steps that need to be taken include:

- The re-purposing of a portion of the UAF towards youth entrepreneurship in ICTs, through micro, small and medium-size cyber enterprises, and through research and innovation.
- The establishment of incubators for the best young Jamaican ICT minds, in order to arrive at unconventional, yet appropriate, uses of Web 2.0 and other emerging ICT technologies.
- Fast-tracking “digital switchover” in the free-to-air broadcast and subscriber television sectors.
- More and better digital broadband usage among the creators of cultural content, and the fostering of a culture of active internet usage, including the systematic uploading of local content and more widespread engagement in global online marketing.
- The provision by private sector service providers of more broadband-enabled mobile devices at low cost (with low connectivity costs as well) in order to stimulate higher levels of broadband penetration and effective access in the shortest possible time. ■

References

Barclay, C. and Duggan, E. (2008) Rethinking the Digital Divide: Towards a Path of Digital Effectiveness. Proceedings of the 41st Annual Hawaii International Conference on System Sciences.

BuddeComm: www.budde.com.au

Dunn H.S. (2000) *Telecommunications and Information Technology: Their Impact on Employment and Trade Unions in the Caribbean*. Kingston: FES.

Dunn, H.S. and Duggan, E. (2007) *E-Powering Jamaica: National ICT Strategic Plan 2007-2012*. Kingston.

Dunn, H.S. and Johnson Brown, S. (2007) Information Literacies and Digital Empowerment in the Global South. Report prepared for UNESCO on the occasion of the International Association of Media and Communication Research (IAMCR) 50th Anniversary Conference 2007.

Dunn, H.S. (2007) *Mobile Opportunities: Poverty and Telephony Access in Latin America and the Caribbean. Jamaica Country Study*. TPM-MSB, UWI.

Dunn, H.S. (2008) “Wha’ a Gwaan?”: Research Report on a Qualitative Study of Mobile Telephony and Poverty in Jamaica. TPM-MSB, UWI, Mona.

Government of Jamaica (2007) The Jamaica Telecommunications Policy 2007 (Draft). Kingston: Ministry of Industry, Technology, Energy and Commerce.

Government of Jamaica (2008) Ministry Paper: Performance of the Universal Access Fund Company Limited (UAFCL) for Financial Year 2006/2007 and Focus for Financial Year 2007/2008. Available at: www.memt.gov.jm/PDF%20Files/Ministry%20Papers%202007/UAF.pdf

Intven, H. (ed.) (2000) *Telecommunications Regulation Handbook: Module 6*. Washington: infoDev and the World Bank.

PIOJ (Planning Institute of Jamaica) (2007) Vision 2030 Jamaica: National Development Plan, Information and Communications Technology Sector Plan. Kingston: PIOJ.

Statistical Institute of Jamaica (2008) Jamaican Statistics. Available at: www.statinja.com/stats.html

Sullivan, N. (2007) *You Can Hear Me Now: How Microloans and Cell Phones are Connecting the World's Poor to the Global Economy*. San Francisco: Jossey-Bass.

UNDP (United Nations Development Programme) (2008) Jamaica: The Human Development Index - going beyond income. Available at: hdrstats.undp.org/countries/country_fact_sheets/cty_fs_JAM.html

UAF (Universal Access Fund Company Limited) (2006) Sensitizing the Jamaican Diaspora on the Universal Service Levy.

Wilson, E. (2006) *The Information Revolution and Developing Countries*. Cambridge, MA: MIT Press.

World Bank (2006) ICT at a Glance: Jamaica. Available at: devdata.worldbank.org/ict/jam_ict.pdf

World Bank (2008) *Doing Business 2008: Comparing Regulation in 178 Countries*. Washington: World Bank and the International Finance Corporation.

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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