ICTs, the Internet and Sustainability:

An interview with Nii Quaynor

The following is the record of an interview with Nii Quaynor, who has played an important role in the introduction and development of the Internet throughout Africa and is currently Chairman of Ghana Dot Com LTD. The interview was conducted by David Souter, senior associate, IIID and managing director of ict Development Associates, in June 2012.

This interview is one in a series of papers being published by IIID’s Global Connectivity team to inform and stimulate discussion and debate on the relationship between information and communication technologies (ICTs), the Internet and sustainability, surrounding the UN Conference on Sustainable Development in Rio de Janeiro in June 2012 (Rio+20), the UN Internet Governance Forum in Baku in November 2012 and the International Telecommunication Union World Conference on International Telecommunications in Dubai in December 2012 (WCIT-12).

Nii Quaynor established some of Africa’s first Internet connections and was involved in setting up key organizations including the African Network Operators Group (AfNOG) and AfriNIC, the African Regional Internet Registry, of which he was founding chairman. From 2000 to 2003, he served as a director of ICANN (Internet Corporation for Assigned Names and Numbers) for the African region. He was previously an executive chairman at AfTLD (the Africa Top Level Domains Organization). He has served as chairman of the Ghanaian company Network Computer Systems, as chair of the National Information Technology Agency of Ghana, and as a member of the Multistakeholder Advisory Group of the Internet Governance Forum.¹

I’d like to start by taking you back 20 years or so, to when you played a critical role in introducing the Internet in Ghana. How important did you expect the Internet to be?

We knew that it was going to be important. That is why we sacrificed much of our livelihood to ensure that our people had some access to this new knowledge. It is why so many people took a not-for-profit approach to things, sharing their knowledge and coming together to educate themselves. We understood, at least those early folk who got exposed to it, that it was vital and that, if governments were not able to do it because they were absorbed in telecom regulation at the time, we had to do it from civil society or from the private sector.

Has it exceeded the expectations that you and your colleagues had at the time? What have been the most dramatic differences between what you anticipated and what we have today?

The expectations could not have been precise. They were correct in that we knew the importance of the impact on education and other domains, but we could not have imagined the types of uses and applications that have evolved. We knew it would go in a certain direction, which is the direction of networking and sharing knowledge, but we could not have precisely imagined social networks and those sorts of things, or the impact in cybersecurity, for example.

What do you think the government’s role should be? Should the Internet be led by the private sector or should it be government-led in a country such as Ghana?

It needs to be both—and even civil society—because the challenge is much larger. I believe in the multistakeholder approach. That is a prerequisite for what I have done in Ghana and, for that matter, in Africa. If at the time I brought the Internet in to Ghana I had not been a university professor, and I had not been a regulator, on the board that assigned frequencies at the time, and therefore not regarded and accepted by these three different communities, it would have been impossible for me to introduce the Internet. It meant that policy-makers did not feel that I was going to create something that was ridiculous or did not make sense. So having those three attributes at the time, in the early ‘90s, we were able to do that. But I might say, as a corollary, when that trio breaks down, it destroys the Internet as well. That should be a lesson, in my opinion, to the discussions going on regarding the International Telecommunication Regulations [ITRs] at present.

Some people in the Internet community see the ITRs as a threat to the Internet. How significant a challenge to the Internet, as it has been working, do you think that WCIT and ITR discussions represent?

I feel a significant risk, partly because I feel many things have not been understood by the newcomers. My biggest concern is about anything that closes the efforts to bring Africa to the world, whether it is through an ITR issue or through a security issue or anything else. I need to connect my research networks, I need to connect my technology parks, I need to connect my people. Other countries have been able to develop and deepen their Internet adoption with an open environment. Africa and similar developing countries deserve the same, not to find themselves in a situation where you use the open Internet to develop yours, then you are going to go to a closed environment. And if it is Africans who are pushing for that, I think they are confused, they do not understand, unfortunately. I need to be frank and say that.

Can you compare the importance of the Internet in Africa with other major changes that have taken place on the continent in the last 10 or 15 years—say, democratization or the impact of oil?

It’s difficult to say. Democratization is indeed occurring, in the sense that there’s much freer flow of information. Our environment is bombarded with newspapers and websites and radio stations, media and their websites, which were not there before. So, since I believe that openness is an important part of the democracy, I see that it has taken hold. But we are yet to get critical mass. It’s okay for an African to check his mail a couple of times a week. But you want it to reach a stage where he’s able to check his mail daily, all the time, continuously. That level of intensity of use, of “real-time-ness” is not yet present. “Real-time-ness” means you must be able to respond in real time, whether it’s by mail or by tweet or by this or by that. We are yet to get there.
That’s an example of what might define an Information Society, one in which information transfer is continuous. How far off do you see an Information Society in a country such as yours?

I guess it is coming. We are now getting close to 10 per cent Internet penetration. I suspect that when we start reaching the 20th and the 30th per cent, you get a large percentage of the users, especially the new ones, moving in that direction. So the Information Society is emerging, but it hasn’t taken shape, it hasn’t fully occurred. And the spread is not total. If you have 25 per cent market penetration, the chances are there will be some communities completely isolated. There will be large communities that are completely isolated if you have less than 10 per cent Internet penetration.

Of course, we are excited about mobile broadband, but some of us are also wary of it because it does not support development of the tool itself. I get to use it, but I don’t get to add to it, at least not in terms of programming and so on. If you want to write a Java program for an Android, you need to go and get a PC. And the same way, if you want to write new software for iPhone or iPad, you’ve got to buy a Mac. We are viewing it like this. Let’s not lose our communities. Bring them in quickly. But we have to be following up with much higher bandwidth investments as well.

Whose responsibility do you see it being to bring about that investment?

Broadband is the responsibility of the three principal communities. Government has a role and the private sector has a role, and so does civil society. The private sector is principally responsible for getting investment and building the actual infrastructure. But when government sees that no one is going to an area, it should build the infrastructure. Government needs to build its own infrastructure. It has to be able to communicate with every district. It cannot say it depends on the provider to establish community access. That would mean the provider is determining our state of readiness or digital divide. The provider cannot do that, because the provider may be a foreign operator. So government has a responsibility of ensuring—whether it’s through a provider, through a civil society organization, or by itself—that it’s able to communicate with its people everywhere.

Of course, governments will create the right enabling environment, the right protections for private sector investments, and give the right level of incentives so businesses will think of long-term investment and build more and more infrastructure and so on and so forth. That’s what they will do. At the same time, if they see that the underserved areas are being left out, and they want jobs for their people and so forth, then governments have to do something. That’s how I see it.

What impact do you think the Internet is having on traditional media in Ghana? In a country like the United Kingdom, traditional media have made great use of the Internet, but the Internet is also seen as undermining their long-term viability. What is happening in the different context of Ghana?

It’s similar, but not yet at the same pace. I used to run a newspaper, so I’m quite familiar with that impact. In the olden days you published your paper, and people read it. But now media houses, radio and television stations, they have to tell what is the story in town. They go ’round and they buy the papers and they have a whole morning program discussing them. So nobody buys the paper because they will hear about it on the radio. The ecosystem is not the same as it was. The only real option is: don’t try to gain revenue from print, but try to gain revenue from your online presence and so on, from advertising and promotion. What was negative I’m beginning to see as an opportunity.
What about the relationship between the state and the citizen? Ghana has seen democratization and successive changes of government since the Internet became available. Has the Internet reinforced democratization?

I think the relationship between the state and the citizen is increasing because citizens can now interact with the state using that medium. Our penetration is not large enough for it to be a major factor, but it is increasing, so I expect it to accelerate. It has deepened knowledge of people, of all kinds of backgrounds—those who can’t read, they will hear it in their local language on radio stations. I think that transparency helps in deepening the democracy, but we don’t yet have a large enough percentage of users for us to be able to truly assess the impact of technology on the relationship between the state and the citizen.

What about security issues, including the way that governments can use ICTs to monitor and potentially control the behaviour of citizens, and the way that they are asking private sector companies to act as instruments on their behalf to do so? Do you see that as a substantial threat?

I think government needs to govern, and if governing means that they have to be intrusive, there is a procedure for it, and they will follow it, and they should be intrusive. Law enforcement has to do its lawful interception, when and where it’s needed. We don’t expect that government will change the law simply to allow control of the people, but while it is concerned with cybercrimes increasing, law enforcement agencies need to be empowered to do their work—and if their work involves telling an operator to change the way he runs his network, they should do it, because we want good clean networks. Bear in mind, however, that we have passed the data protection act, and there is the right to freedom of information bill. There is very active debate about the process in Ghana.

How much impact has the Internet had on the relationship between Ghanaians living in Ghana and Ghanaians in the diaspora?

The early adopters of the Internet included parents whose children were overseas, and so it has certainly deepened. The need was for that, as I can tell you from my customer base. In fact it is getting to the stage where there is serious consideration of how we can establish our technology parks to enable the diaspora to participate. Those are good discussions, because the technology is becoming more and more reasonable for them to be able to participate from afar.

Can I turn to the issue of sustainability? This is the week of the third Earth Summit on sustainable development. The concept of sustainable development as we know it now originated 25 years ago, with a couple of core values: intergenerational equity and the principle that we shouldn’t go beyond the sustainable use of planetary resources. Has the Internet helped in that or hindered it?

I think that the Internet has helped and will continue to help with intergenerational equity, because it kind of flattens things. Everyone will have roughly the same opportunity for knowledge. In fact, the next generation has more power in terms of knowledge than the one before it. You see old folks asking their children to do things for them. We need a special program to help the old not have a generational equity problem, while they are alive.

As for the issue that we have to live on our own planetary resources, the Internet and computer technologies can certainly be an asset there in the sense that they can help us know how well we are doing with respect to damaging the Earth. But I also have to admit that we contribute to the problem that we help solve. We do consume a fair amount of
energy, and we have some waste. Not all countries have mechanisms to manage this waste. And perhaps Africa and other developing countries will become a dumping ground for waste by the West, because people will see that “We are helping Africa” if they have a piece [of equipment] that’s two years old, refurbish it and ship it to Africa. It depends on how fast you use it. If you don’t use it fast, it will become waste more quickly. But if you use it fast, to create new things, perhaps it will not be so much of a waste. So that is why I say it is a mixed bag. On the one hand, the tool will allow us to know exactly where we stand, but at the same time the tool itself generates waste.

Thinking of your peers, your colleagues within the Internet community in Africa, how conscious do you think they are of these challenges of waste and of energy use and greenhouse gas emissions?

I think it is an appreciable concern, partly because the energy is quite erratic here.

I’d like to ask about the sustainability of the Internet itself. When I interviewed Vint Cerf for this project, he emphasized the importance of IPv6 to the sustainability of the Internet. What is your view of the sustainability of the Internet in African contexts?

Like I said, only on the average 11 or 12 per cent of all of Africa has any form of access to the Internet. Broadband is lower. So people who don’t have it don’t care, right? And when they do have it, they don’t care about the numbering system. So they don’t see IPv6, IPv4 and those kinds of things as important to start with. Secondly, given that the number of users is much lower, the number of able professionals is also much lower.

And—fortunately or unfortunately—there is some time lag that the numbering registry has to allow for the transition. We still have IPv4 numbers. What is happening now is that the African Regional Internet Registry [AfriNIC] is providing training to engineers and operators, to government, the regulators and so on, so that they can have a task force that will guide them in their country to do the transition. This is the phase we are in. We are not exactly at the beginning and we are not exactly at the end. The concern may not affect that many people because we don’t have that many users and we don’t have that many engineers. But at the same time, we have some slight time within which to do a migration, and so the numbers registry is putting a lot of effort into training the people who do the migrating, ensuring that the regulators develop a transition plan so that the government network will not be heavily affected, and then creating an environment that encourages the providers to do so too.

It sounds to me as if you’re saying that the transition will be managed satisfactorily. Is that correct?

Yes. I think it will be managed okay because the right things are being done, and we are not yet at the point where we fall over the cliff. It is an issue, but not yet desperate. There is continuous pressure for people to move, but we have some movement and we have some time.

One last question. What do you hope will have been achieved in the Internet in Africa in the next 10 years?

For me it is very simple: education, education, education. If you are not literate, you can’t use the Internet, so if my literacy rate is 50 per cent already my maximum number to benefit tends to be 50 per cent. All the other things like infrastructure, they are just barriers to it.

Thank you very much.
About IISD

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