

BytesForAll (bytesforall.org) is a voluntary, unfunded venture from South Asia, that looks at how IT and the Internet can be used for development in the region.

Frederick Noronha, the cofounder of the initiative, shares his experiences about the project.

# Bytes for all. Bit by bit



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When we got going nearly four years ago, ICT for development wasn't such a fashionable issue; hardly anyone seemed to be aware of its potential and, fortunately, there was far far less funding involved. Not that our own initiative at BytesForAll was particularly insightful. To be frank, we stumbled onto it largely by accident.

June is the month for the outbreak of the monsoons in parts of South Asia. It was then, in 1999, that the first seeds of BytesForAll were planted in one's mind.

The goal at that stage was just a limited one: could we collate information of how ICT is being, and can be, used for 'development'? Or, to help meet the needs of the commonman? A small number of experiments were already being conducted on the ground. If this information was circulated widely, couldn't it influence at least a handful of more techies to look at this perspective? And, if enough enthusiasm was built over this, couldn't it become a kind of self-fulfilling prophecy on what ICT could actually deliver?

After all, South Asia's, and particularly India's, techies have a notorious gap between potential and performance. On the one hand, this is a region with an undeniable huge amount of software skills. But, at the same time, apart from employing this to earn the export dollar, we don't even have the basic software to meet the needs of our own people.

For instance, our kids can easily learn the geography of the United States using a slick jigsaw-puzzle type of game. But one

has yet to see something parallel when it comes to learning about India. We have millions of school-children, but very little educational content for them. Even today, 'educational CDs' often end up being little more than text-books-on-CDs. India is home to some of the widest spoken languages in the globe. But our low purchasing power means that computing is yet to become feasible in many of these. Of late, that reality is fast changing, though. We can expect breakthroughs in the near future. But it could come faster if issues like these are persistently put onto the agenda of public priorities.

So, we had to get started somewhere.

One needs to keep in mind that cost-effective email was publicly accessible for barely two years to the average citizen by then. So, in a way, the time was ripe to try this out, as we later realised.

The way chosen was compiling a simple ezine. Basically, it contained links to useful experiments from scattered regions of India, if possible with a URL to give links to more information. You can go back to [www.bytesforall.org](http://www.bytesforall.org) where some of the past issues of the ezine are available for download. This ezine still continues, though trying to be regular is always a losing battle.

That was the start. But life is, as they say, what happens when you're making other plans.

In no time, someone called Partha P Sarkar contacted me, and we went on to become co-founders of the still loosely-knit BytesForAll. Till date, incidentally, we don't have a physical office, a bank account or any legal entity, apart from being a loose yet effective (in our view) knowledge-sharing network. In fact, we haven't even met physically, and surely our mental pictures



of each other are not going to match when we do.

Partha sounded optimistic. Why not take the idea forward, he suggested. What was meant to be just an occasional—perhaps one-off—newsletter could in fact be continued. Since Partha had the web-design skills, and collating information on what was happening was not too difficult a job for a journalist, why not?

### Surprise response

Soon even we were surprised by the kind of response we were getting. Till date, it however does seem ironical that the Bytes-ForAll experiment was more enthusiastically welcome from overseas, rather than from within South Asia itself.

In India, for example, getting a press note published or drawing attention to the concept, was a Herculean task. Pakistan's SPIDER magazine, that focuses on the Internet, was an early exception and we soon built up a non-commercial information-sharing arrangement. After awhile, 'Express Computer' in India gave space to take ICT-for-development issues to the computer professional, which was a real good initiative.

Yet, the fact remained that the Bytes-ForAll approach found it easier to get noticed by, say, 'Yahoo! Internet Life' rather than the average IT magazine or general newspaper from Mumbai or Karachi or Dhaka or Kathmandu or Colombo. This is not to say that initiatives like these need to hanker after publicity. But how does the concern get onto the mainstream agenda if the mainstream press won't seriously look at it? Surely, the focus on these issues is important.

Taking about the often-positive response (apart from the domestic media), perhaps one could divert from the point to zero in on why this was so.

For a change, this endeavour was bringing out a positive we-can-do-it message. From an otherwise hopeless South Asia, IT is one field which throws up quite a degree of optimism. If you read the media of South Asia (as perhaps in other parts of the Third World too), you would perhaps be amazed by the amount of bad news and pessimism that crowds out the news-pages. This is something we have internalised over the years, due to the unfair global news flows. Bad news comes from the Third World. And, the Third World produces (mainly) bad news. Or so we're led to think.

One aspect which segregates a First World citizen from someone in the Third World is the fact that we believe in the inevitability of defeat. We are convinced that our initiatives are unlikely to take off, or that they're likely to fail sooner than later. On the other hand, the average Westerner is looking for ways of how to get things done.

Okay, maybe this is a gross generalisation. But it's true...

There could be other reasons why the ICT4D debate has become so fashionable over the years. While we don't intend to be party to this, the reality is that neo-liberal politics that dominates today's globe would like to see technological solutions to political problems. Including poverty.

After all the pretensions about the 'de-

veloping world' making it to a paradise of affluence have vanished, we need to move away from being used to create new make-believe scenarios. Talking in terms of 'developing countries' is nothing but a farce, because if anything, the gap is widening. We're in any case not too sure whether we define the ultimate state of 'development' the lifestyles, approaches and problems that go with today's affluent world.

While we are not pessimistic, we would also not like to create a new set of miracles, or pretend that ICT can deliver more than it actually can. But, at the same time, let's not overlook its potential to, say, battle illiteracy, spread information about agriculture, or build effective communities of real people doing real things in the real world.

What will ICT really do, we are sometimes asked. To me, the answer is simple: it will only change our way of thinking. This, for a start, could be a huge contribution...

### Looking back

So, looking back, what has been achieved? What are the unfinished tasks?

To be frank, our idea wasn't really largely original. It's name was inspired by the Dutch one-time alternate ISP, XS4all. Our model, based on unfunded and volunteer work, was inspired by the GNU/Linux project that has made Free Software the

*ICT provides educational content to children*



Photo © CKS 2003

powerful instrument it currently is.

If at all we can claim credit for anything, it's just that we kept working on the right idea, with the right set of friends and allies, and were willing to take the help of everyone without getting caught up in the confines of pseudo-nationalistic jingoism. (Till date, it's a matter of much pride that BytesForAll is one of the few examples of a free-and-fair information sharing arrangement that crosses the troubled and distrustful borders of South Asia, and it's one of the channels which sees, for example, India and Pakistan talking freely through.)

Our aim of sharing information freely, without restrictive copyright restrictions, have also helped, we feel, take this concern forward. In this context, it is great to see the birth of a new magazine focussing on ICT4D, and let's hope the idea of sharing information really catches on.

We can also claim to have contributed, in some measure, to linking 'development' and 'ICT' concerns, and helping to draw attention to the widespread potential by cross-fertilizing these two fields. Today, a whole lot of quarters have entered into this debate, as the bytesforall readers mailing list makes clear.

Clearly, we are still a long way away from our goals and our dreams.

Much of what's really happening on the ground in South Asia's ICT4D field, still goes unreported. On the other hand, it is only a few giant projects that keep getting show-cased, whether they deserve the credit or not.

One of the persistent concerns is that, as is typical of South Asia, such projects often get showcased, leading to claims that don't really exist on the ground. Yet, at the same time, the innovative work that has much potential, and may be carried on by one or a handful of individuals, with little or no funding, and no need for aggressive showcasing, rarely gets notice.

So, we have a situation where a great many initiatives simply struggle on unnoticed. Or, die *unsung*.

We have also failed to build links between the main sectors and players in the field—techies still remain unaware about the depth of the debate or the potential of this field; the 'development' circuit is still unclear about whether ICT is the problem or the solution, and what it could offer them; the Free Software caucus with all its potential has yet to build the link so that students could really contribute to bridging South Asia's software needs while building up their skills at the same time.

Big money has entered the field. Okay, it could help some quarters that need it. But, it could also destroy more than it helps the situation, since money tends to

attract the wrong people with the wrong motives.

Funders entering the ICT4D debate need to perhaps remember that (i) money can kill the idealism that is needed as the primary fuel for this endeavour (ii) pumping in a lot of money could create unsustainable made-for-collapse projects (iii) the more the money, the greater the incentive for unrealistic showcasing (iv) many ICT ventures need the fuel of idealism and imagination more than money (v) market-based models that work can be a good test for the robustness of the technology and its business-model (two examples from India: Sam Pitroda's extension of telephone access, and Prof Jhunjhunwala's lowering the cost to telephony and rural Internet kiosks).

We need to make this debate mainstreamed. Volunteer energies need to be tapped more effectively. The ICT4D debate's effectivity will be judged only when the software skills of South Asia really make a difference to the lives of the common(wo)man, going beyond one-off stories that make us feel good but bring about little change in the overall scheme of things.

[www.i4donline.net](http://www.i4donline.net)

# What's on

## India

27 – 28 May 2003

*UNDP Consultation on ICTs*

New Delhi

[www.undp.org.in](http://www.undp.org.in)

30 May – 2 June 2003

*Empowering women through Information and Knowledge: From Oral Traditions to ICT*  
Mahindra United World College of India, Pune  
[gendwaar.gen.in](mailto:gendwaar.gen.in) [barsba\\_parekh@vsnl.com](mailto:barsba_parekh@vsnl.com)

31 May – 2 June

*Third Annual Baramati Initiative on ICT and Development*

Baramati, Pune, Maharashtra

[www.digitalpartners.org](http://www.digitalpartners.org)

10 – 12 December 2003

*International Conference on e-Governance – 2003*

Indian Institute of Technology, Delhi

[mpgupta@dms.iitd.ernet.in](mailto:mpgupta@dms.iitd.ernet.in)

27 December

*Fifth Edition Mysore IT.com*

Mysore

[www.mysoresamachar.com/mys\\_it\\_com5.htm](http://www.mysoresamachar.com/mys_it_com5.htm)

## China

21 – 23 July

*The ElearnChina Conference 2003*

The Edinburgh International Conference Centre

[www.elearnchina.com](http://www.elearnchina.com)

25 – 28 August

*The 7th International Conference of Human Services Information Technology Applications*

The Hong Kong Convention and Exhibition center

[www.hkcss.org.hk/husita7](http://www.hkcss.org.hk/husita7)

[secretariat.husita7@hkcss.org.hk](mailto:secretariat.husita7@hkcss.org.hk)

## Thailand

12 – 16 May

*United Nations/Thailand workshop on the Space Technology Contributions to Bridge digital divide Bangkok*

[www.oosa.unvienna.org](http://www.oosa.unvienna.org)

[victor.kotelnikov@unvienna.org](mailto:victor.kotelnikov@unvienna.org)

## Korea

14 – 17 October

*World Knowledge Forum*

Seoul

[www.wkforum.org](http://www.wkforum.org)

## Malaysia

27 – 30 May

*KP Forum on ICTs and Gender: Optimizing Opportunities*

Kuala Lumpur

[www.globalknowledge.org](http://www.globalknowledge.org) [gkps@gkpssecretariat.org.my](mailto:gkps@gkpssecretariat.org.my)

21 – 24 June

*InfoSoc Malaysia 2003*

Melaka

[www.nitc.org.my/infosoc](http://www.nitc.org.my/infosoc)

1 September (tentative date)

*Multimedia Asia (MMA) 2003*

Malaysia

[www.msc-multimediaasia.org.my](http://www.msc-multimediaasia.org.my)

13 – 15 October 2003

*Map Asia 2003*

[www.mapasia.org](http://www.mapasia.org)

## UAE

10 – 14 May

*9th GCC e-Government, Telecom & Internet Forum*

Dubai

[www.datamatix-dubai.com/mainpage.asp](http://www.datamatix-dubai.com/mainpage.asp)

## United States

30 – 31 May

*China and the Internet: Technology, Economy, and Society in Transition*

Los Angeles, California

[www.ascweb.usc.edu](http://www.ascweb.usc.edu)

26 – 29 June

*Community Technology Centers' Network (CTCNet)*

*12th Annual National Conference*

Washington

[www.ctcnet.org/conf2003\\_conf@ctcnet.org](http://www.ctcnet.org/conf2003_conf@ctcnet.org)

7 – 11 July

*O'Reilly & Associates' Open Source Convention*

Portland, Oregon

[www.conferences.oreilly.com/oscon](http://www.conferences.oreilly.com/oscon)

1 – 2 August

*International Conference on Politics & Information Systems: Technologies & Applications (PISTA'03)*

Orlando, Florida

[www.confinf.org/PISTA03](http://www.confinf.org/PISTA03)

19 – 21 September

*The 31st Telecommunications Policy Research Conference*

Arlington, Virginia

[www.tprc.org/tprc03/2003.htm](http://www.tprc.org/tprc03/2003.htm) [grosston@stanford.edu](mailto:grosston@stanford.edu)

6 June

*Freenetworks Conference 2003*

Las Vegas, Nevada

[www.con.freenetworks.org/cfp.phtml](http://www.con.freenetworks.org/cfp.phtml)

[fn\\_con@freenetworks.org](mailto:fn_con@freenetworks.org)

## Australia

22 – 24 June

*International Telecommunications Society's Asia – Australasian Regional Conference*

Perth

[www.cbs.curtin.edu.au/research/ITS\\_Conference/index.cfm](http://www.cbs.curtin.edu.au/research/ITS_Conference/index.cfm)

5 – 7 November

*Information Technology in Regional Areas Conference*

Queensland, Australia

[itira.cqu.edu.au/2003](http://itira.cqu.edu.au/2003)

[enquiries-itira2003@equ.edu.au](mailto:enquiries-itira2003@equ.edu.au)

## Netherlands

26 May

*IICD Strategic Dialogue: Catalyzing ICT-enabled Development: Whose Ownership, What Partnership?*

The Hague

[www.iicd.org/pballantyne@iicd.org](http://www.iicd.org/pballantyne@iicd.org)

9 September

*6th Water Information Summit*

Delft

[www.irc.nl/news/wis6.html](http://www.irc.nl/news/wis6.html) [krukkert@irc.nl](mailto:krukkert@irc.nl)

15 September

*Workshop on knowledge management for improved water resources management*

Delft

[www.irc.nl/news/wis6.html#workshop](http://www.irc.nl/news/wis6.html#workshop) [krukkert@irc.nl](mailto:krukkert@irc.nl)

## Switzerland

12 – 18 October

*ITU Telecom World 2003*

Geneva

[www.itu.int/WORLD2003/](http://www.itu.int/WORLD2003/) [telecominf@itu.int](mailto:telecominf@itu.int)

10 – 12 December

*World summit on the Information Society (WSIS) – Geneva 2003*

Geneva

[www.itu.int/wsis/](http://www.itu.int/wsis/)

## Germany

14 July

*Media use in Rural Development*

Feldafing

[Lucie.Bosotti@gtz.de](mailto:Lucie.Bosotti@gtz.de)

## Greece

15 June

*Information Systems Perspectives and Challenges in the Context of Globalization*

Athens

[www.aueb.gr/ifip-isglob03](http://www.aueb.gr/ifip-isglob03) [akp@aueb.gr](mailto:akp@aueb.gr)

30 June

*Computers and Advanced Technology in Education*

Rhodes

[www.iasted.com/conferences/2003/greece/c402.htm](http://www.iasted.com/conferences/2003/greece/c402.htm)

[calgary@iasted.com](mailto:calgary@iasted.com)

## Hungary

20 – 24 May

*The Twelfth International World Wide Web Conference*

Budapest

[www2003.org](http://www2003.org) [info@www2003.org](mailto:info@www2003.org)

## Africa

15 – 16 May

*GKP/ECA Second African Media Forum Africa Program*

Addis Ababa, Ethiopia

[www.globalknowledge.org/gkps\\_portal/index.cfm](http://www.globalknowledge.org/gkps_portal/index.cfm)

30 May

*IICD Technical Update Seminar: Open Source Software*

UCI, Kampala, Uganda

[www.iicd.org/capacity](http://www.iicd.org/capacity) [lonny@uci.aci.ug](mailto:lonny@uci.aci.ug)

12 May

*Information for Governance: Third meeting of the UNECA Committee on Development Information*

Addis Ababa, Ethiopia

[www.uneca.org/codi/](http://www.uneca.org/codi/)

14 May

*West African Computing, Telecommunications & Broadcasting Conference and Expo*

Accra, Ghana

[kwami@aitecafrica.com](mailto:kwami@aitecafrica.com)

1 June

*The League of Arab States Regional Conference for the World Summit on the Information Society*

Cairo, Egypt

[www.itu.int/wsis/preparatory/other/cairo.html](http://www.itu.int/wsis/preparatory/other/cairo.html)

12 – 17 June

*Conference: Digital Opportunities for Africa – Community Multimedia Centres*

Dakar, Senegal

[www.ngocongo.org/ngomeet/dakar1.htm](http://www.ngocongo.org/ngomeet/dakar1.htm)

12 October

*HELINA 2003 Conference: ICTs in the Fight against HIV/AIDS in Africa*

Johannesburg

[www.uku.fi/english/organizations/helina-1](http://www.uku.fi/english/organizations/helina-1)

[lyn.hammer@mrc.ac.za](mailto:lyn.hammer@mrc.ac.za)

# Who's afraid of the old fox?



Sunil Abraham  
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My good chum Bandwidth Bandit lives in Jayanagar, Bangalore. Over the last two years he has used his broadband connection to amass 4 Gb of music in MP3 format from the '60s and '70s. He

says that he will name his first child Napster out of gratitude for the infamous file swapping software. Sometimes, the Bandwidth Bandit hosts his uncle from Tuticorin affectionately referred to as the Old Fox.

I had the privilege and pleasure of meeting the Old Fox the other day. He is 80 years old and is an incurable Carnatic music aficionado. Since his youth he has been a classical music teacher of great repute. On hearing of my fetish for information technology, he began revealing details of his modus operandi. He has a digital radio receiver hooked up to a Pentium II with 256 Mb RAM. The software on his computer has been configured by a teenage accomplice to encode and compress the music to MP3 format. He then cuts over twenty CDs a day, each containing over 120 songs or ten whole albums. All strictly Carnatic with the occasional digression into Hindustani and Fusion. These CDs are distributed for free or at cost to family, friends, colleagues and his many disciples across the years. Let us estimate the value of music that the Old Fox pirates per year. 20 CDs per day x 10 albums per CD x 300 working days per annum x Rs 150 per album equals Rs. 90,00,000 per year. Single handedly the Old Fox has caused over one Crore of copyright damage. Comparatively the Bandwidth Bandit is small fish. Scary! I wonder how many 80 year old men the Indian music industry

will have to hunt down, arrest, prosecute and jail to stop illegal sharing of music. Music is one of life's greatest joys, only surpassed by the joy sharing it. The trouble is, an intellectual property regime makes criminals out of normal citizens like you and me for activities that we have long taken for granted.

India's software business is profitable only because it pirates software.

Ideally an intellectual property regime should protect the interests of all four parties involved. The innovator, the entrepreneur, the consumer and society at large. Unfortunately consortia of large corporations have infiltrated the government and the legislature. Their powerful lobbyists have skewed copyright laws to suit their appetite for unlimited profits. This is not an India specific phenomena. It is the result of a sustained global corporate campaign. Consequently the rights of ordinary consumers and the average citizen have eroded away, leaving them with the terrible choice between an empty wallet or a life of so-called crime.

Digital music is just a form of software. Computer software is another domain where the consequences of Intellectual Property Rights are horrifying. By conservative estimates we have 1 million computers in India. If we were to install a legal version of the default operating system and office suite on each of these machines. India would have to pay a single American company approxi-

mately \$400 million every two years. This excludes client software for desktop publishing, web design, 3D modeling, drafting, animation, audio and video production, integrated development environments, accounting and finance, enterprise management and planning. To this, add the cost of mail, web, file, print, chat, database, application server software which are usually more expensive than client software. Therefore putting legal software on a million odd Indian computers will result in the total value of software imports far exceeding software exports. Or put more bluntly, India's software business is profitable only because it pirates software. The net effect of the global intellectual property regime is that it impoverishes developing countries like India. Clear evidence is available on the United States Patent Office website. In the report titled 'Patent Counts by country/State and Year All Patents and All Type' for the period 1977 to 2001, the number of patents granted to United States is 14,35,712. Number of patents granted in the same period to India is 992. So how many years will we need to catch up? Carnatic music, television, medicine, software, books, seeds, products, processes, ideas, gestures. Intellectual property pervades every aspect of our lives.

Practitioners working in the domain of ICT for Development must understand the key role that IPR plays in defining and perpetuating the Digital Divide, just as private property defines the Economic Divide between landowners and landless. However, the global intellectual property rights regime that exists today cannot be wished away. Nor can we afford as a nation not to participate. But alternatives do exist such as the General Public License [www.gnu.org]. We must as a nation learn from the manner and method of the global free software movement. Extreme corporate privatization of intellectual property must be countered by protecting and building the public domain. The Indian voluntary sector must recognize this as part of its mandate. Otherwise we will end up making criminals of well intentioned citizens such as the Old Fox. I then asked Old Fox if he would ever tire of this. He smiled sheepishly and said 'I really like this illegal stuff, I say'. He then shut his eyes and sunk back into a lesser known MS Subbalakshmi.

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