ANNEXURE-II

F.No.4(140)/2000-WG IT-Masses
Government of India
Ministry of Information Technology
Working Group on IT for Masses
New Delhi-110 003

Dated: 23/5/2000

MINUTES OF THE FIRST MEETING OF THE WORKING GROUP ON INFORMATION TECHNOLOGY FOR MASSES HELD ON 23.5.2000 AT NATIONAL INFORMAITCS CENTRE, NEW DELHI

The meeting was attended by the following members:

1.	Shri Prakash Javadekar	.....	Chairman
2.	Prof.P.V.Indiresan	.....	Member
3.	Prof.Ashok Jhunjhunwala	.....	Member
4.	Dr.S.Ramakrishnan	.....	Member
5.	Dr.A.K.Basu	.....	Member
6.	Dr.Y.K.Sharma	.....	Member-Secretary

Dr. Vinay K. Dharmadhikari, Senior Director, MIT and Shri Ajay Mehta, PS to Minister (IT) also attended the meeting as special invitees.

Shri G. Soni, Adviser, MIT and Shri Dewang Mehta could not participate in the meeting due to being away to US as a part of Indian Delegation lead by Minister (IT).

Dr. S. K. Choubey, Director, AISECT, Bhopal who was invited as special invitee to the first meeting could not attend the meeting.

Chairman of the Working Group, Shri Prakash Javadekar, welcomed the participants of the first meeting and gave a brief background to the context in which the Working Group on IT for Masses has been constituted. He referred to the two incidents, which lead to thinking with regard to constitution of such a Working Group:

(i) A view being held by some people in the country that increased activities related to IT may result in creating a Digital Devide amongst those who have access to IT and those who do not.

(ii) A statement of US President appreciating the way IT is being used by women in a village of Rajasthan which he visited during his recent visit to India.

Chairman pointed out that in spite of massive developments related to IT in the country, a very small percentage of people have access to IT based services. Most of the people are not even aware of the benefits of this technology to their day to day lives. It is, therefore, necessary to launch a massive IT awareness campaign to make people aware of its benefits. In this context, Chairman pointed out that while considerable work related to IT induction has been done within the Government, this is either largely confined to back-office

computerization or wherever public related applications have been developed, there is not sufficient awareness amongst the potential clientele in the country to be able to take advantage of such IT based services. Chairman pointed out that another area which is a much for mass scale induction of IT in the country is to enable people to use IT applications in Indian languages.

With these opening remarks, Chairman invited members to present their views.

2. Member-Secretary, Dr.Y.K.Sharma informed the members that as a part of collecting information on major IT applications with citizen interface developed in various ministries / departments of Central and State Governments and also to elicit views on this subject from senior officers of Ministry of Information Technology two meetings have been planned as under :

(i) Meeting of all HOGs/HoWs/HoDs of MIT on may 24, 2000
(ii) Meeting of all HoDs and SIOs of NIC on May 26, 2000

With regard to this meeting, Member-Secretary informed the members that the Chairman has desired it to be planned in an unstructured format to enable the members to express their views without being bound to a structured agenda.

3. Prof. P. V. Indiresan stated that concept of Universal Computer Literacy is necessary and feasible to be implemented in the country at large scale. He pointed out that at any given point of time around 200 million children are of school going age. We need to plan for half of this population, i.e. 100 million children, to be made computer literate at a time. Assuming that one PC can be used by 2 children for one hour in a day, with a PC available for 10 hours during the day, 1 PC will be able to cater to the needs of 20 children. For 100 million children, we need to have 5 million PCs. He felt that it is absolutely feasible to be able to have these many PCs available within two to three years. He suggested the following two approaches:

(i) Commercial organizations who do not have utility for a PC after 2-3 years, due to fast paced technological changes, should be allowed to write-off PCs in two years to 150% extent if they donate them to schools at least for usage by the schools for 10 hours a day. In order to encourage such organisations to denote relatively new PCs to schools, this percentage should progressively reduce from third year onwards such as 100 % after 3 years and 50% left for 4 years. These organizations, if they so desire, may still use these PCs given to schools for commercial purposes after the stipulated usage of 10 hours a day by schools. He felt that by doing so we should be able to mop-up at least half the number of PCs required for schools.

(ii) For the remaining half, it is necessary to encourage industry to produce PCs for school education purpose at a cost of less than Rs.10,000/- per PC. Even if the cost of PC is taken as Rs.20,000/- per PC, 2.5 million PCs will require an investment of Rs.5000 cores which should be feasible to be generated within the country from various sources.

From the point of view of implementation of this scheme, Prof. Indiresan suggested that we may select 50,000 schools across the country in such a manner that there is at least one school in 4 km radius in the country with computer facilities so that a child will not have

to walk for more than 4 kms to learn computers. Each of these schools should have 100 PCs so that meaningful IT-based education can be provided in these schools which is not feasible with 4 to 5 PCs generally proposed for the schools. Also, it is felt that installation of 100 PCs in a school will make infrastructure facilities feasible as well as improve the maintainability, as for such a large number of PCs at a school, companies would be able to provide local resources for their maintainability and support. In addition, the computer facilities of the order of 100 PCs in a school can also be used for commercial purposes outside school hours. He felt that these schemes will require visionary management and persuasion techniques much more than finances which in his view is far less of a problem.

Prof. Indiresan stated that with the infrastructure in place in schools in the above manner, the next important issue to be handled is availability of software. He felt that instead of standardizing software across the country or even across the state, localized approach should be used. A model school should be selected in each district and the software and teaching methodology being used in such a school to teach computers should be replicated in the remaining schools in the district. Such schools should also be allowed to franchise their software and services to other schools. In addition, these schools should also be encouraged to put the course material developed by them on Internet. The students will thus have the option to use Internet to select the course material for different subjects, including non-IT subjects, from amongst the host of course material available on Internet from various schools. This will also encourage competitiveness amongst the schools to put out the best material on Internet. With regard to management of such facilities in the schools, a local committee at the school level of parents and teachers should take care of all aspects instead of such schemes being monitored from a central point in the Central or State Governments.

While talking about some of the impediments of this scheme he listed the following:

- Power supply
- Software availability
- Bureaucratic problems
- Political support which may not be forthcoming in some cases as many people continue to hold the view that the schools who do not have even black-boards should not concern themselves with PCs.

4. Dr. A .K. Basu, while agreeing with the overall approach proposed by Prof. Indiresan, suggested a slight variant of the scheme. In his view, we should identify 10 schools in each of the 6000 blocks (approximately) in the country. Each of these schools should be provided with 10 PCs resulting in total requirement of around 6 lakh PCs. He felt that this number could be more feasible in the initial stages.

Dr. Basu was of the view that IT should be integrated with the education system in its entirety and not just confined to teaching about computers. He also mentioned that combination of different technologies such as radio, telephony, TV and computers should be integrated in such a manner that it could ideally suit the local requirements.

With regard to power supply problem, Dr. Basu suggested that experiment done by their organization in Rajasthan tribal areas using Solar-photo voltaic system has been very successful and could be considered for replication to address the power supply problem.

While it is easier to convince youth in the country about the use of IT, it is much more challenging to make the community as a whole aware of the advantages of IT. He felt that

this is also partly due to the fact that IT professionals themselves confine to computers and do not attempt to talk about complete spectrum of IT tools such as radio, telephony as an integral mix. He felt that we need to think of a total package as an IT solution not just around computers. With regard to flow of information in IT systems, there is a major problem that information flow in general is only from top to bottom. As a result the users of information are only on the receiving end and do not participate in the process as generator/ creator of information. This is resulting in the people not getting adequately sensitized for use of IT. A two way process of people contributing information to the IT based services and systems as well as making use of information available in the system will not only make the systems content-rich but also facilitate early implementation and sustainability of IT based services and solutions in the long run.

Better participation of people in IT based systems requires, as an essential pre-requisite, a detailed study of the actual needs of the people, who are to be served by the IT system, to be conducted. He mentioned that in a survey of this nature, it was found that most of the people wanted information on computer education and video services and were ready to pay for these services. He was of the view that people will be willing to pay for IT based services so far as it fulfils their day to day requirements. At this, Chairman mentioned that in Maharashtra, MLAs have been advised to grant 5 PCs and one Server at an estimated cost of Rs. 3.30 lakhs for one Lab and two such Labs to be set up in their constituency out of the MLA fund of Rs. 65 lakhs.

5. Prof. Ashok Jhunjhunwala mentioned that key issue in mass scale induction of IT is how to enable the people and remove impediments in their attempts to establish IT infrastructure and services across the country. He was of the view that availability of Internet at a very large scale in the country will be key to IT induction. He felt that we must target for 150 to 200 million Internet/ telephone connections in the country in near future against the existing number of 24 million telephones and 0.7 million internet connections. He felt that Internet is not merely collection of Web-sites but it empowers the people.

He stated the example of Cable-TV which has reached the level of 35-40 million connections in just six years in the country while even today only 8 million homes have telephone facility. (The remaining 16 million phones are for commercial / official purposes). This reach of Cable has taken place without any government support or any R&D. The way the Cable-TV has enabled the people to establish Cable infrastructure, providing services and take it to 35 to 40 million homes in such a short time, it is necessary that we should replicate the same model of enabling people to target 150 to 200 million Internet connections in the country.

He said that another important issue is affordability of internet access by people in the country. While charges of Rs.80 to Rs.200/- per month are required for a cable TV connection, the telephone requires an expenditure of the order of Rs.1000/- per month. As per the analysis, this level of expenditure may only facilitate 3 to 4% penetration of Internet access. If this could go down to Rs. 200/- per month, the penetration can easily reach to 50% to 60%. For this penetration to reach such levels fast in the country, Prof. Jhunjhunwala was of the firm view that we have to allow free license for telecom (along with Internet) service in a neighbourhood, with revenue sharing for backbone connectivity.

With regard to delivery of services also, Cable TV model needs to be adopted. The significant aspect of Cable TV penetration is that the cable TV operators operate in the neighbourhood itself to solve any problem whereas in the case of telephone, the service is

provided in a faceless manner due to which personal rapport between service provider and user simply does not exist. Also, the approach of cable TV operators being in un-organized and small sector involving self-employed people provides much better productivity and quality of service whereas the service provided by organized sector such as telephone or Internet field in the country is very poor.

The costing pattern with regard to backbone for Internet and end-user level access is of the order of 30% and 70% respectively. While large corporate houses are investing in backbone in the country, as a result of which the backbone is expected to meet requirements and become cheaper, the problem related to end user access is not getting solved. The approach to be followed for this should be a model of large scale franchisees on the pattern of Cable TV providers, who can then use backbone provided by DOT and other companies on revenue sharing basis.

He explained the project developed at IIT Chennai using Wireless Local Loop (WLL) technology providing Internet and telephone connectivity at considerable low cost. He also explained some of the projects done by his Group with regard to setting up of such facilities at different places in Andhra Pradesh.

With regard to end-user equipment for Internet access, Prof. Jhunjhunwala was of the view that end-user device for internet access can be developed within Rs.5,000 inclusive of all taxes at the current rate.

With regard to the approach to be followed for building capabilities at smaller towns in the country to be able to provide IT/ Internet services, he felt that TCS model can be useful. In this model, TCS initially did “body-shopping” for software development projects to be slowly but steadily converted into off-shore software development capabilities in the country itself. Using this model, the larger towns which have better infrastructure could develop 10 to 12 small companies in smaller towns in their vicinity and bring the people from these companies to the larger towns, use them for development of services, infrastructure and products for some time and then these people would go back to their towns and be able to create capabilities locally. This will help in enabling people even in smaller towns who generally feel neglected with regard to new services.

At this point, Prof. Indiresan mentioned that in this country we have generally followed a policy of limited supply of services and resources. We must get away from this policy and create a situation where excess supply could be made available. This will help in reducing the cost of service as well as bringing more competitiveness and thus quality.

6. Shri Ajay Mehta suggested that

(i) IT should result in growth of local economies even in smaller towns without which IT will not spread at mass level in the country. Conscious strategy is needed to be prepared in this regard.

(ii) While backbone infrastructure is slowly getting placed in the country for Internet access the last mile access problems are still not getting solved.

In this context Prof. Jhunjhunwala mentioned that companies are using fibre optics around large towns only. He also mentioned that railways had quad cable across their network. The average distance between two railway stations is of the order of 7 kms. The quad cable has a spare pair which can be used if permitted by railways to transmit the data at the rate of even 1 Mbps between two stations. This combined with WLL technology would set up the network at low cost and in considerably less time.

Prof. Basu intervened to state that the committee should formulate policy decisions which may facilitate reach of IT to masses. He pointed out that masses in different places in the country are not homogeneous in nature. As a result, no single prescription can work across the country. We need to find alternative strategies for various areas.

Special IT related activities should be planned to focus on rural women, slum dwellers and tribals etc.

7. Dr. S. Ramakrishanan suggested that the vision and the objective of Working Group should be to ensure that government played a catalytic role in marshalling all resources to ensure that the other half of the Digital Devide also enjoy the benefits of IT revolution and is not left behind, and in the process not get alienated more than national progress in IT.

Since IT provides a unique and new opportunity to address problems in the field of education, health, rural development, poverty alleviation, employment etc., the IT revolution should prove to be a major asset in domestic soco-economic development. Towards this, he proposed

(i) To identify areas for pro-active government role to reduce the Devide.

(ii) To identify applications, services of special relevance to rural and urban poor.

(iii) To identify special scalability issues and solutions in respect of infrastructure, applications or services.

(iv) To lay special emphasis on E-Governance, E-Commerce, E-Business and setting up portals that would ensure that disadvantaged benefit from these applications as well.

(v) To address affordability issues related to disadvantaged including the rural, remote and urban poor.

(vi) To identify issues for presenting before the country in the form of policy description involving Central and State Governments and programmatic initiatives to Community Information Centres (CIC) programme in the North-East.

(vii) Dissemination mechanism or publicity strategy by which a wide cross-section of public may appreciate the benefits of IT first hand and thus developing public sympathy and support to the initiatives.

(viii) To identify and devise measures of progress by which benchmarks can be set within the country as well as in relation to countries from time to time for benefits from IT in various sectors.

(ix) To identify and marshall resources, be it through World Bank, subsidy route or massive private / public sector participation.

8. Dr. Vinay Dharmadhikari suggested that "IT for All" should not be implemented for the sake of IT alone but should aim for Human empowerment and enable each individual citizen to make "informed decisions".

Citizens should be able to extract the best from the government services & institutions with the use of IT.

IT should enable better management of self-government institutions so that they deliver services to the level of satisfaction of the people to whom they are supposed to serve.

The Working Group needs to focus on women and children empowerment through skill development and training.

To ensure Right to Information to the people is very important.

IT for the first time provides solutions related to provision of multi-lingual service across the country. This will ensure that people should be able to access service in the native language without being forced to use services in the language of the region.

IT should become facilitator for better marketing of village products and agro-processing products. This will be a revenue-generating activity.

IT will also enable better accountability of the government system.

9. Chairman while summing up the discussions mentioned the proposal of Dr. S. K. Choubey, who could not attend the meeting with regard to IT Yatra: a campaign for IT Awareness & Dissemination. This kind of initiative is necessary to educate and inform the people regard the benefit of IT to the common man in the country.

Following action points were finalized :

(i) A web-page on the Wroking Group on IT for Masses will be set up to inform public about deliberations of the Working Group to invite suggestions from the public.

(ii) The working Group will meet at four locations viz. Pune, Jaipur, Gwuhati, Chennai/ Hyderabad. At these meetings, the Working Group will meet the representatives of respective State governments as well as representatives of non-governmental agencies to assess the major IT related developments in

these cities. The working Group members may also visit a near-by location of rural or semi-urban nature where citizen based IT services have been implemented in the State. These visits will be planned during June 19-30, 2000.

(iii) A background paper will be prepared by 31st May, 2000.

(iv) The next meeting of the Working Group will be held on 6th June where some prominent applications in Central Government will also be presented.

The meeting ended with the thanks to the Chair.

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