

Minutes of the 1st meeting of the Working Group on IT Mass Literacy Programme, held on January 18, 2011 under the Chairmanship of Prof. VN Rajasekharan Pillai, Vice Chancellor, IGNOU at Department of Information Technology, New Delhi.

List of participants is at Annexure - I.

1. The Chairman welcomed all the members of the Working Group and mentioned that the step of the Government to initiate a policy level intervention for spreading IT Mass Literacy Programme in a big way in the country involving all the stakeholders is a welcome move. He informed that IGNOU has a base of 3.5 million enrolled students and it has set up over 3000 Study Centres which can also function Village Knowledge Centers across India. IGNOU is also running a programme in IT Literacy. He also informed that Distance Education Council under INGOU is presently looking into 13 open universities across the country and over hundred Distance Education Institutes in the Conventional Universities. Chairman requested Shri G.V. Raghunathan, Senior Director & HOD(HRD) to present the background and briefly mention the steps taken so far in this direction.
2. Shri G. V. Raghunathan, Sr. Director & HOD (HRD Division), DIT apprised the Committee about the recommendations of the Standing Committee of Parliament for Department of IT for taking an urgent action to maintain the data with regard to literacy rate in computer. He further informed that DIT through its organizations, viz. DOEACC Society and C-DAC is involved in human resource development in the area of IECT Sector. Shri G. V. Raghunathan further mentioned that a Basic-level Course in Computer Concept (BCC) for 8th Standard passed students of ITIs has been designed by DOEACC Society. The Committee was briefed on the following aspects:-
 - i) DIT has been discussing with NASSCOM and also had the benefit of discussions with the Chairman of the Working Group and as a result, NASSCOM has prepared an approach paper for defining the IT Mass Literacy at various levels. This document was circulated to the members of Working Group (copy enclosed at Annexure – II).
 - ii) The task before the Working Group includes bringing out set of definitions for e-literacy; methodology and structure for spreading the IT literacy.
 - iii) Spreading of IT literacy would require the advancement of the technology as well as variety of communications medium that are available like new learning methodology, mobile learning, DTH and Satellite Television, Internet and Cyber Medium, etc. It would also be essential to effectively deploy existing structure like *Sarva Siksha Abiyaan*, IGNOU's *Tele Knowledge Centres*, 2.5 lakh CSCs, etc. It would also need to override the IT literacy initiatives over the several initiatives of Rural Development Ministry.

- iv) The definition of IT literacy is a complex task as it would not be possible to give one single definition and literacy definitions would have to be context sensitive. Further, it is expected that definition(s) would change with the change in technology and its applications, hence, the Working Group could consider definition at various layers, which would could be reviewed and revised from time to time based on the technical as well as the application changes.
 - v) The IT literacy would involve imparting skills at various levels, it was felt worthwhile to look at the DOEACC efforts in defining the set of e-literacy to initiate discussions. DOEACC Society presented before the Committee, their two lower level of computer courses namely CCC (Course on Computer Concepts for 10th Pass candidates) and BCC (Basic Course on Computers for 8th pass students of ITIs/ITCs) for IT literacy and their comparisons. A newly designed course for creating mass IT Literacy entitled ACC(Awareness of Computer Concepts) was also presented to the committee for discussions. Further, it was also indicated that IGNOU's IT literacy course is being looked at by NASSCOM. These could be taken as case studies for evolving a definition as well as model course structure.
3. Following this, a detailed discussions took place covering all the aspects starting from IT literacy definition, methodology to evolve the definition, linking the definition to the kind of course structures and syllabus. Various existing technologies, media and organizational structure that are available which could be used for spreading IT literacy, etc. were discussed in detailed. Various points/issues raised during the discussions which required detailed study to carry forward this initiative are:
- (a) There should be a clear guideline to define e-literacy and the target group for e-literacy. Also there is a need to define functional literacy in the area of IT. It emerged that the definition has to be at different levels.
 - (b) Use of Mass learning medium like TV channels, etc., could be used to propagate e-literacy in India. Delivery of e-literacy would not be through e-learning mode and only an introduction to e-Learning would be given to the learners. There is a need to try to find a way to reach the unreached and to make the otherwise literate to e-literate. There is an urgent need for creation of the roadmap to achieve the goals of this programme.
 - (c) IGNOU's 3000 Study Centers and tele centers, ITIs / ITC, district and block level centers of MHRD, '*Sarva Sikshaya Abiyaan*', rural development programme could be used for IT Mass Literacy. Mode of delivery should be a direct contact between students and teachers as distance learning alone may not be very effective, looking at the diversity of the target group. Networking with various stakeholders and agencies has to be established to achieve the goals and an action plan is required to be prepared.

- (d) MHRD could take lead in involving State Resource Centers for spreading the mass e-literacy programme. CSC's located at panchayat levels which have electricity and connectivity could be involved. State IT Departments could also be involved in this programme. Adult Education Centre all across India could be used and the teachers who volunteer to work could be involved. Good infrastructure is available in high schools under *ICT@school Scheme* could be utilized for this programme.
- (e) There is a need to study the Akshaya Programme of State Government of Kerala, Digital Literacy Programme of IGNOU, the Government of Maharashtra's Programme etc. with the view to learn from their experiences, evolving a set of IT literacy definition and also an approach to course curriculum and the course material development.
- (f) Duration of such course(s) at various levels would need to be planned very carefully taking into account the target groups, their learning and absorption potential, etc.
- (g) The issue of middle and old age group who are otherwise highly qualified, but don't have IT skills would also need to be covered. In this regard, the Chairman pointed out that the social necessities encourage people to acquire IT skills for taking advantage of technology changes. As a case study, he pointed out that the middle age and old age population in Mallapuram District of Kerala adapted to IT much faster and at an early stage owing to a need to stay in contact with their near ones in the Middle East.
- (h) Access to the health information and other informations which are helpful for livelihood of the learners and course content based on the need is required to be prepared.
- (i) Wider brain storming sessions are required at national level, may be in about six weeks. Number of students to be trained and time frame to achieve the target is to be kept in mind. The Chairman indicated that IGNOU could take the lead in organizing the brain storming session.
- (j) The Working Group felt that a draft action plan has to be prepared which could be kept in public domain for views/comments.
- (k) It was indicated that the next meeting of the Working Group could also be held in about six weeks time. Tentative date for the next meeting could be in the end of February 2011. The brain storming session could precede the next Working Group meeting.

Further, following issues were also indicated by members:

- A website on IT Mass Literacy could be launched which could have link with DGE&T, Ministry of Rural Development and other stake holder's websites. Chairman indicated that IGNOU could lead the effort.

- Some of the members from the working group could be identified to prepare a Concept/ Base paper for the next meeting
- Contents for IT Mass Literacy are to be prepared in all the Indian official languages.
- The scope is to be broad with mass implementation and has to be time bound.
- Any course curriculum designed for this purpose would need to be modular. Industry requirement would need to be mapped to such course design.
- Some sort of cross credit recognition to the IT Mass Literacy Programme, which could be equated to some other qualification. It has to be linked with some sort of employment/ entrepreneurship; this aspect has to be seen to make this IT Literacy initiative to become popular.
- Pro-active participation from all the stakeholders is required.

The meeting ended with a vote of thanks to the Chair.

List of Participants for the meeting of the Working Group on IT Mass Literacy Programme held on 18th January 2011 in the Conference Room No. 4009, Electronics Niketan, DIT.

1. Shri V.N. Rajasekharan Pillai, Vice Chancellor, IGNOU
2. Shri N. Ravi Shanker, Joint Secretary, DIT
3. Shri G.V. Raghunathan, Sr. Director & HOD (HRD), DIT
4. Dr. V.N. Waliwadekar, Executive Director, DOEACC Society
5. Shri A.K. Singh, Principle Secretary(IT), Government of Bihar.
6. Shri G. Raghavan, Vice President, NIIT
7. Shri A.M.Pariar. ACEO, CHiPS, Govt. of Chattisgarh
8. Smt. Simmi Chaudhary, Director, MHRD
9. Shri R.L. Singh, Director, DGE&T, MOL&E
10. Smt. Nafisa A Ojha, NASSCOM
11. Smt. Rita Soni, NASSCOM
12. Smt. Sangeeta Gupta, NASSCOM
13. Shri A.K. Pipal, Additional Director, HRD Div., DIT
14. Shri Sanjay Kumar Vyas, Joint Director, HRD Div., DIT
15. Shri M.I. Siddiqui, Registrar, DOEACC Society
16. Shri. M.M. Tripathi, Joint Director, DOEACC Society
17. Shri Shankar Das, Scientist 'B', HRD Div., DIT

APPROACH PAPER TO DETERMINE COMPUTER LITERACY

What is IT literacy as articulated by the Industry?

There is no formal articulation of IT literacy by the industry. Following are two definitions which describe the term by skills required

Definition 1:

Computer Literacy (Common sense approach):

The knowledge and ability to use computers and technology efficiently and knowing how computers work and operate. Generally, "computer literate" can mean the ability to use several very specific applications (usually Microsoft Word, Microsoft Internet Explorer and Microsoft Outlook) for certain very well-defined simple tasks, largely by rote.

Familiarity with the basic hardware, software and Internet concepts that allow one to use computers for data entry, word processing, spreadsheets and electronic communications.

Basic computer skills

- Knowing how to switch on the computer
- Being able to use a mouse to interact with elements on the screen
- Being able to use the computer keyboard
- Being able to close down the computer after use

Intermediate computer skills include being able to use the following

- Word processor
- e-mail
- Spreadsheets
- Databases
- Use the internet

Advanced computer skills include

- Programming
- Use of computer for scientific research”

The Sequence to Computer Self-Sufficiency

Step 1: Literacy

Understanding the basic principles and concepts underlying everything we do with computers. This is the most critical step and the one that most people fail to take.

Step 2: Functionality

Learning the basic keyboard and mouse procedures used by most programs to edit, save, print, minimize and maximize, cut and paste, work with menus, manage files, etc. Today basic functionality also includes using the Internet for e-mail and web browsing.

Step 3: Specialization

Learning in-depth the details of specific programs. This can range from Microsoft Office programs to Web Development to programming to graphics.

Definition 2:

Computer Literacy (US Definition):

An understanding of the concepts, terminology and operations that relate to general computer use. It is the essential knowledge needed to function independently with a computer. This functionality includes the ability to solve and avoid problems, adapt to new situations, keep information organized and communicate effectively with other computer literate people.

What is the present ICT Awareness Level in the country?

To the best of NASSCOM's knowledge this has not been measured in any systematic manner by any agency.

What are the Levels of ICT literacy required in India?

Following from the above, it appears that there are no known assessments done in this regard.

2 well recognized certification programs conducted to promote IT literacy are

Microsoft Unlimited Potential (MSUP):

India Development Gateway has partnered with MSUP to promote the IT Literacy with its partnered organizations through the Common Service Centers (CSC) across India. 'Microsoft Unlimited Potential (MSUP)' programme offers a well-designed curriculum in local languages. MSUP programme is a part of the biggest Corporate Social Responsibility initiated by Microsoft to empower people across the world with I.T. skills. It is aimed at providing high quality learning through Common Service Centers (CSC's). The MSUP program offers a number of courses like Computer Fundamentals, Digital Media Fundamentals, Internet Concepts, Web Design Fundamentals, Word processing Fundamentals, Presentation Fundamentals, Database Fundamentals and Spreadsheet Fundamentals etc

ICDL

ICDL – certification is based on the international, European Computer Driving License (ECDL) Foundation's Quality Management System, which was certified in 2005 as being compliant with the internationally recognized ISO 9001:2000 quality standard. Compliance with this standard means an organization or individual can trust ICDL training and testing as a performance measure for computer literacy

Levels of certifications:

Level 1: Job Readiness Certification

This level includes three skill areas which only require basic computer skills

- File Management
- Word Processing
- Internet & E-mail

Level 2: Full Driving License Certification

These include:

- Concepts of IT
- File Management
- Word Processing
- Spreadsheets
- Database
- Presentation
- Internet & Email

Hence what should be the emerging framework for design, development and deployment?

Since there is no existing framework it is suggested that the following steps be taken to develop it:

- Setup a multi-disciplinary steering group with representatives from the Industry, Government, Associations and NGO's dealing in social development to deliberate and finalize a robust framework, which would be applicable and relevant to the Indian scenario
- Thereafter, arrive at a comprehensive definition for the term computer literacy and assign parameters to assess and test the level of awareness / literacy
- Develop computer literacy measurement tools
- Assign a competent agency (NIC / DOEACC / STPI / MHRD etc) to study the requirements finalized; construct the framework; design and conduct sample impact assessment survey based on demography / Geographies, to determine efficacy of the framework and whether it delivers the desired result i.e., effective measurement of Computer literacy.
- Thereafter, formalize a roll out plan and roll out measurement nationally

References

- 1) COMPUTER LITERACY USA: Setting global standards for computer literacy, testing and certification <http://www.virtualbill.net/clu/definit.html>
- 2) International Computer Driving License (ICDL) <http://segora.com/literacy.html>
- 3) UNCTAD Information Economy Report 2010
- 4) ITU Measuring the Information Society
- 5) MKCL's Online Certification Test for IT Literacy Trainers