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**REPORT AND MINUTES OF THE DAY-LONG SEMINAR HELD
ON THE OCCASION OF
WORLD TELECOM & INFORMATION SOCIETY DAY, 17 OF
MAY 2009
AT KLN PRASAD AUDITORIUM OF FAPCCI, RED HILLS,
HYDERABAD
FROM 1000 HRS TO 1530 HRS**

17th May, World Telecom & Information Society Day, was marked by a day-long seminar (no-fee seminar, in all-free Andhra Pradesh) with the Center for Telecommunications Management & Studies (CTMS), supplying all the technical information as well as resource persons for the Federation of Andhra Pradesh Chambers of Commerce and Industry (FAPCCI) to act as a nodal and coordinating agency for conducting the seminar. Institution of Electronics and Telecom Engineers (IETE), Institution of Electrical and Electronic Engineers (IEEE), The Institution of Engineers(India), A.P. State Centre (IE) and Bharat Sanchar Nigam Limited,(BSNL) were the other participating organisations. The annual Dr T.H.Chowdary Endowment Lecture was delivered by Sri S.D. Saxena, former Director Finance of BSNL. The talk was entitled, “**Transforming a Government Department (DOT) to A Public Sector Enterprise (BSNL)**” and. The text of his talk is reproduced in this issue.

2. The event was inaugurated by Sri Konijeti Rosaiah garu , Hon'ble Minister for Finance, Planning and Legislative Affairs, GOAP. This inaugural talk is also reproduced in this issue.

3. Prof. Dr. Madabhushi Vijayalakshmi Devi, of the Sociology Department of the Reddy Women's College, delivered a talk, “**Social Behaviour in Cyberspace**”. This finds a place in this issue.

4. In addition to these were Power Point Presentations of Sri Sudhindra Kumar, Chief General Manager of BSNL, Andhra Pradesh titled, “**Mobile Telephony- Extension to the Unreached**”; Sri Umopathy, IG of Police, Cyber Crimes presented by Sri Ravi Kumar Reddy, Inspector of Police, Cyber Crime PS, CID, Police Department, Andhra Pradesh, titled “**Internet Fraud and Security**”; Maj. Gen. Dr. R.K.Bagga, titled, “**Quality of Service: Customer's Perceptions**”; Sri G.P.Reddy, titled, “**Quality of Telecom Service**” and Sri G.V.Gopichandran, titled, “**Protection of Children in Cyberspace**”. These are reproduced in this issue. Dr T.H.Chowdary's two papers were already published in the previous issue. In this issue we

present the view graphs.

5. At the end of all sessions, a Panel Discussion was conducted. In these discussions all the speakers were quizzed by audiences/participants.

6. After the Panel discussion, Valedictory Address delivered by Dr N.Jayaprakash Narayana of Lok Satta. He highlighted how his Lok Satta Party made extensive use of SMSs, radio and TV channels to cut down cost of electioneering.

7. Dr Chowdary gave a brief exposition on e-balloting and the need for a statutory Political Parties **Regulatory Authority of India**. The seminarians felicitated Dr Jaya Prakash on his signal entry into the Andhra Pradesh Legislature

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**REALISING THE INFORMATION SOCIETY & DEMOCRATISATION OF KNOWLEDGE
WORLD TELECOM AND INFORMATION SOCIETY DAY, 17 MAY 2009**

Day-long seminar at

**KLN Prasad Auditorium of FAPCCI, Red Hills, Hyderabad
Inaugural Session : 1000 Hrs**

*(Inaugural Address by Sri Konijeti Rosaiah garu,
Hon'ble Minister for Finance, Planning and Legislative Affairs, GoAP)*

Sri Suraj Prasad Agarwalji, Dr Hanuman Chowdary and Friends,

It was only yesterday (16/5/09) that the results of the general elections to the 15th Lok Sabha and to the Andhra Pradesh State Legislature were announced. I am in the middle of intense activity and exciting times. It was only on the evening of the 12th that Dr. Chowdary approached me to be the Chief Guest and inaugurate the seminar that several institutions are organizing here on the important subject of telecommunications, Internet, information Society, cyber space and life in the knowledge society. I accepted to be here at so short a notice and amidst hectic activity **because of the importance and significance I attach to the subject of telecommunications, Information and Communication Technolgoeis, computers, Internet, e-governance, cyber space and good and bad things that are happening in cyber space.**

2. Telecoms and ICTs are profoundly influencing the way that we learn, carry out economic and business activities and most importantly, governance. These technologies and systems are for the

first time in the history of man kind, **enabling information and knowledge wherever they are generated to be instantaneously available to any person, anywhere in the world, at any time; provided he is equipped** with appropriate devices like telephone, PC and now, the cell phone. Researches all over the world are producing ever new technologies. Those which are profoundly influencing society and its evolution are: radio to connect communication devices to the networks, communication satellites, optical fiber transmission and digitisation and compression. All of them work by computers.

3. I am pleasantly amazed at the progress we have made in the last 15 years . From 80,000 telephone at the time of independence in 1947, to **about 5 mln in 1994 and to 420 mln by now within the last 15 years is a giant leap**. This has become possible by liberalisation of the Indian economy by the great visionary Prime Minister, Sri P. V. Narasimha Rao. The end of the government monopoly and permit- licence- quota system has unleashed the energy and power of India's in entrepreneurs, engineers and the young. Entry of private sector, competition and statutory regulation have been leading to the phenomenal growth of telephones and their transformation into the infrastructure required to IT and Software companies to enter and capture global markets. Periodic legislative and policy measures removed all restraints, constraints and distortions. Prime Minister Rajiv Gandhi inducted computers and computer networks into government and further, into other sectors of our people's activity. Sri P V Narasimha Rao opened up the economy, especially telecommunications for private investments from India and elsewhere in the world. The National Telecom Policy (NTP) of 1994 was the beginning of the end of monopoly and fierce competition. The legal and policy frame work was further improved and fine - tuned by the Vajpayee government which removed all the last vestiges of monopoly and restrictive practices and threw open every sector of telecommunications: manufacture, network services, national and international telecoms, Mobile telephony and Internet to fierce competition.

4. I have noticed with pleasure, the intellectual campaigns that Dr Hanuman Chowdary has been waging even while he was in government service and thereafter at considerable risk to himself to bring about the end of government monopoly and bring in private sector entry and competition. While the vision in the 1970s was,

**ghar ghar mein radio and
gaon gaon mein telephone**

(a radio in every home and a telephone in every village)

By the mid 1990s, the vision propagated is
**haath haath mein telephone and
gaon gaon mein Internet**

(a telephone in every one's hand and Internet kiosk in every village)
Both of these activities were launched in Andhra Pradesh and then they became national policies. Governments in Andhra Pradesh have been very supportive of all these developments and e-governance. Hyderabad has become the habitat for scores of national and international IT companies. This is a natural evolution because of the pioneering work that is being done by successive governments in the state, quite well supported by governments at the center.

5. Liberalisation and private sector entry have yielded the most desirable benefits, most remarkably in the telecom sector. This is the only sector where prices are continuously falling and availability is outstripping even the demand. From an year's telephone service costing an years Per Capita Income in 1994, it is **now costing only one tenth of the Per Capita Income**. That is the reason that the vision, **hath hath mein telephone** is being realized. The cell phone is now no longer confined to the rich and to the cities but is available in the villages, in the hands of Carpenters, Electricians, Vegetable Vendors, Farmers and Students. We also note that the cell phone is becoming smaller and smaller and smarter and smarter and more multi-functional with a camera, radio and connecting to the Internet. This is opening great possibilities. It is helping students to learn from all sources. The Internet is helping producers and businessmen to enter and operate in global markets. This is breaking down the isolation of the old who are roted in their homes, in villages, from their children working all over the world. It is empowering every citizen first by enabling them to get any information about anything, from the millions of electronic store-houses of knowledge called websites. It is enabling the ordinary citizen to call the mighty and the high, the Prime Minster, chief Ministers, or MLA, MP or government officers. ICTs, Telecoms and the Internet are helping the democratization of knowledge; that is, information and knowledge can be accessed and utilized by ordinary citizens to be empowered.

6. Telecoms and cyber space of the Internet are not all blessing. The good and evil have always been coexisting. One of them prevails at some time or the other but corrections come when human beings fail. Then divine intervention will take place. In India, we call this

concept as **Avatara**. The divine destroys the evil-doers and re-establishes dharma and order. This great ICTs technology and the Internet and computers are, helping men and society to evolve into higher and ever higher heights in the march towards realisation of the divine potential in every one. There are **evil men who are using these very technologies and creating havoc**. I refer to crimes like terrorists using the systems, fraudsters defrauding people of their bank balances, trade in children and women, young girls being bullied, harassed and stalked.. These crimes take from all quarters of the globe, over networks that pass over several countries. The victim is in one place and the perpetrator in another place. Even if the criminal is detected, how to get him, how to punish him, under which country's law etc., are becoming problems.

7. Since the infrastructures of a country like telecom, electricity and road and rail grids and networks are getting computer - controlled and since missiles and anti-missiles are also computer -guided, the security of the systems and the information and control of them are at great risk from hackers. I am sure that scientists and engineers who are inventing ever new and ever more capable and versatile systems would take adequate care for the impregnability of computer networks by hackers and laws would be made to protect whatever there is in cyber space.

8. I wish to share with you one delight. - This city Hyderabad comprising of Hyderabad and Secunderabad used to be called Twin Cities. Now it has become a Tri-city. The new area is named Cyberabad. And no other part in the country is having a tri-city, one of which is Cyberabad. Very fortunately, our Cyberabad has become home for hundreds of world-class ICT companies, producing Software and IT services for many countries across the globe.

9. I am happy to be associated with this event and to inaugurate your deliberations and the seminar. As a person with long involvement in the government of Andhra Pradesh and its public life, I feel immensely happy that the telecom & IT vision and services postulated have been conceived and developed in this state by some of our people like Dr. Chowdary. He has been intensely and intimately involved from the beginning in the development and implementation of the vision. I am glad that so many institutions have come together and the government of Andhra Pradesh is also involved in your deliberations.

10. I wish that your deliberations will inform and educate law-makers and inspire citizens, scientists and engineers to strive ever more to bring these most beneficial technology and services within the reach of yet unreached and among all sections of the people and every part of this country.

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**TRANSFORMING A GOVERNMENT DEPARTMENT (DOT)
TO A PUBLIC SECTOR ENTERPRISE (BSNL)**

- Sri S.D. Saxena

Former Director: BSNL Board of Directors, New Delhi

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Dr T.H.Chowdary Endowment Lecture, 2009

(Under the auspices of the IETE Hyderabad Center and FAPCCI: Hyderabad, 17 May 2009)

Deptt of telecom was formed in the year 1854 or so. Communication has been a very important part of the British Govt who used the channels of communication effectively for managing the country as vast and large as India. It was the British govt who immediately after the invention of telegraph installed the telegraph system in India within a period of less than 2years . the first telegraph line was erected between Calcutta and Diamond Harbour to communicate the arrival of ships and the necessary infrastructure needed to haul the imported goods inland and to load these ships with the raw material needed by the industrial establishment back home in Britain.It therefore goes to the credit of British to quickly realise the importance of the communication infrastructure and its effective use. If one visits the Victoria memorial museum in Kolkotta, a small piece of the Telegraph line is displayed which was used by Mr. Ochhneaussy to connect the diamond harbour with Kolkotta in those days.

It has been the strategy of the British govt to use the communication as a vehicle of administration which helped them to retain power in India for such a long period. The case of using the power of postal system for managing the transfer of money to the remotest corner and also to disburse it using the first banking system through Postal organisation is also a case in study.

Deptt of telecom and post has gone through many changes but the legacy of the system has remained and has created its own culture and traditions which have settled down into the system in a very rigid way and it was hard to break them. The system continued for quite some time and the first major change came when the deptt

of post and telecom was segregated as two different deptt. The separation was painful but it, for the first time, brought about a sense of financial and profit centre approach to the organisation. Prior to this the system was depending very much on the net profit which on account of the loss making Postal branch was very low and therefore the resources needed for the growth of the Deptt was much below the required budgetary need of the system. It was very difficult to get the resources to expand the network and had a very limited expansion possibility. It has created a situation in which persons had to wait for many years to get a telephone connection and was also difficult to get the services as is expected of a service-oriented organisation. Department of telecom therefore had to struggle with many a change taking place from time to time due to the fast changing technology and the demands of the customers who had witnessed more efficient systems working in other countries of the world.

I would at this point like to mention the outstanding contributions made by Shri T. Hanuman chowdary, during the decades of 70s and 80s when he started getting independent postings and rose to higher positions in the system. I would like to make a special mention of two such cases: one was the introduction of the grocers telephones in the state of Andhra Pradesh, which revolutionised the communication facilities in the rural areas and brought about a paradigm shift in the connectivity of these areas. This work became a subject of study by the ITU –the UN body dealing with Telecommunication-and was also taken up by the World Bank for the study of the benefit of a telephone to a common customer. A detailed study was carried out by the world bank on this subject and we felt very proud of this work which was initiated by Shri Chowdary.

I would also like to mention the work which he carried out at Ahmedabad much before the present leadership to expand the telecom system in the state of Gujarat. He went ahead to install telephone lines in the system to expand the system and to provide the much needed relief to the people of Gujarat. As a young officer I developed a high regard for Mr. Chowdary and thought that the work should be done in a manner of passionate desire to achieve the outcome. The story has a very interesting side effect, as Shri Chowdary was asked to explain as to why he installed more lines than was approved by the headquarters? I felt relieved when his explanation was accepted by the deptt.

There are a number of areas where he has contributed in a very significant manner specially in the area of Overseas communication

and also in the IT sector in his capacity as the advisor to the Govt of Andhra Pradesh, however I would not be able to highlight all these areas of major achievement in the short span of time. I would like to mention in the passing that Shri Chowdary has been a one man institution who has established new and innovative methods to improve the lot of Indian society through the effective use of technology and has been instrumental in bringing about major changes in the policy of the Govt and Telecom department through his efforts and positive and bold criticism and suggestions.

Coming back to my own theme of the transformation of the Deptt of Telecom to that of a vibrant and competing entity. I would like to delve upon the changes and the aftermath of the conversion process. I have gone through the transformation of a number of organisations in India and have yet to find a parallel in the history of the corporate India where an organisation of this size and magnitude has been converted into a corporate entity. Perhaps the transformation has been one of the largest undertaken by the Indian system of Administration and Management. It was the year 2000 when on 30th September the 145 year old organisation with more than 3.5 lakh employees was converted into a Public sector entity without much of the roadmap and plan to achieve the targets. It was like throwing a child to water body so that he can learn to swim. I am told by the swimming instructors that this is the best method to teach people to swim. The moment one is thrown to the waters he tries to keep his nose above water and starts floating. Some times accidents do occur if the help is not at hand as happened in the case of the Indian idol hero who drowned in pool which was not very deep and people found it difficult to believe that a person with sufficient height sank to the bottom of such a pool and drowned.

It did not happen in the case of DOT and the organisation proved it worth by remaining afloat in the worst of times and choppy water is a tribute to the people who managed the transformation in a very pragmatic and bold manner.

Before we further go into the details of the corporatisation of the DOT it may be appropriate to discuss the case of British Telecom which was corporatized in the year 1984 by the then Prime Minister Mrs. Margaret Thatcher. Mrs Thatcher took a very bold decision to corporatize and privatise the British Telecom which was a mammoth organisation having its own problems and complicated systems. The privatisation of BT was such a bold step that the case is studied as the most important study of the privatisation of the public utility

in the world. I very often mention that the change required such bold effort that only an Iron lady like Mrs. Thatcher could bring about such a major transformation in the system. I had the privilege of meeting certain persons, specially Sir Allen who was one of the key advisers to Mrs. Thatcher on privatisation, who shared the fact that at that time they felt that this change may not sustain and that the Govt will have to reconvert the company into a department. In order to safeguard against such an eventuality Mrs Thatcher divested the share of the company on a large scale giving individual share holder and common public a right to hold share of BT. On account of the fact that the shares were held by large number of people it became almost impossible to reconvert the company into a Govt department. It is also a fact that whereas the telecom privatisation succeeded in Britain, the attempt to privatise the gas supply company met with a failure and had to be reconverted into the Govt utility as was the case prior to the conversion.

In respect of the DoT the change was a major task to be accomplished. If we go back in time to the year 2000, the Telecom scenario was quite chaotic. It was a mix of private and public enterprise. On the one hand DoT had been able to expand to an extent that the telephone connection was no more an impossibility as it used to be in the late 1980s and early 1990s. The mobile connection was also available but the services were costly and the common man was not able to enjoy the benefits of the services due to a heavy cost. There were approximately 2.5 crores telephones in India and also more than a million PCOs catering to the needs of the common man. The teledensity i.e. the number of telephones per 100 persons was still very low (4%) and had to be increased further so as to bring it closer to the other countries of the world. India was among the lowest and least developed country in terms of the tele-density in the world and was slightly better than our neighbouring countries. The Deptt. Of Telecom was not operating the cellular services as the same was not licensed to them and only four major operators namely AirTel, Idea, and Hutch were the main players in the GSM space. The customers still wanted new fixed wire telephones as evidenced by the waiting list in the various states for new connections.

The announcement of the formation was not an easy task and the people involved had to go through a very difficult process of negotiating with the Unions the transformation of the Deptt into a public sector company. It was felt by most of the Unions representing the 3.5 lakh employees that the Public sector companies, unlike Govt, do

not guarantee a job security ,pension and pay and perks. They had been witnessing the plight of some of the fellow workers of telecom related PSUs who were going through a very difficult phase and were almost at the verge of being referred to Bureau of Industrial finance and restructuring. In some cases the employees of these PSUs were not able to get their salary and other benefits due to fall in business as a result of the loss of business to their private competitors , specially in the Telecom Cable and Telecom Manufacturing Industry.

The workers therefore demanded pension to be paid by the govt and also a better pay and perks on joining the PSU namely BSNL ,in line with other Public Sector Companies. Govt on their part took a bold decision to pay them pension form the govt account and assured that the jobs will not be taken away as a result of restructuring and retrenchment. It was a bold step taken by the govt at that time in variation to the other PSUs who were not entitled to pension and Govt retiral benefits. If however we look at it from the perspective of the employees , most of the employees had worked in the organisation for more than 20 years and were eligible for the pension as per rules and were entitled. Also by corporatisation Govt was getting rid of the liability of paying the salary and other benefits to them which was to be paid by the newly formed entity. If one looks at the notification for the conversion of Departments of the Govt to a PSU, BSNL finds a special mention as far as the pension payment is concerned. Although some safeguards have been included in the notification, the Unions are still agitating to get these removed and are seeking absolute guarantee from the govt in this regard. It goes to the credit of the persons involved at that time in the process of this mega transformation that the process of change could be initiated without any major strike or disruption of services dispite the far reaching consequences and impact of this transformation. It speaks volumes of the pragmatic approach of the Govt which could initiate the process of this transformation.

The new entity was called Bharat Sanchar Nigam with its corporate office at

Sanchar Bhawan, 20 Ashoka Road New- Delhi. In the first place the name itself in the beginning used to create a misunderstanding as it was mistaken with VSNL (the oversees Communication Company , of which Mr. Chowdary was the CMD before retirement). Thankfully the confusion has now been resolved over a period of time as the VSNL was acquired by TATAs and the name has now been changed

to Tata Communications. The changed organisation initially operated from the same office and the same location without much of change in the work culture and the environment.

Management of Change

The newly formed BSNL was headed by Dr. DPS Seth and a group of board members including Mr. S.P. Purwar who was Adviser finance in the govt setup. Dr. Seth has been a veteran telecom engineer with vast knowledge of technology and management. He had worked in the Telecom Engineering centre , at Delhi and also in the north eastern states. In addition he had a large number of officers to guide him in the process of transformation.

The change process was therefore painful and quite challenging in the beginning but the credit goes to the top management of that time who quickly assembled a team of dedicated officers to handle the process. One of the harsh reality of this change is the loss of Govt status of the employees. Being a govt employee gives a different status and stability to the person which was suddenly taken away by the formation of the company. Although it appears to be a minor issue but if you ask the people who have undergone that transformation it is a very painful experience. While there accountability and responsibilities had increased they get a feeling of a second class citizen at the same time delivering much more output and performance. With the new pay commission recommendations the salary and pay structures of the employees became inferior to that of the govt employees and was a matter of great concern to them. Little wonder that a group of executives who suffer a loss in emoluments have till date remained undecided about joining the corporation despite repeated attempts and negotiation by the Govt..

The major changes that have taken place are in the following areas:-

1. Personnel and HRD
2. Marketing and commercial
3. Finance & Tariff related issues
4. Corporate Social Responsibility

Personnel & HRD

The corporation has quickly adopted to the changed environment and has been able to negotiate the new wage structure arrived at

after along drawn process in which all the unions participated. It was felt that the employees be given a better salary and perks compared to what they were drawing in the Govt setup . As a result a new pay structure was drawn up in which on an average the employees were given an average increase of minimum rs 2000/- . this increase was actually less than what their counterparts were getting in a similarly placed PSU namely MTNL but keeping in view the fact that the employees were getting pension in BSNL, which was not available to MTNL employees, the unions agreed to a lower pay and allowances. In this agreement a lot of credit goes to the unions and specially to leader Shri O.P. Gupta who took a very pragmatic approach of the whole issue. In all humility I would also like to mention that the approach of the finance in the matter was very positive and we calculated a cost benefit analysis by giving a higher benefit rather than creating an atmosphere of Industrial unrest which would have proved detrimental to the long term interest of the organisation. It is a matter of great satisfaction that the organisation could convince all the unions resulting in the absorption of the bulk of the employees without any disruption or agitation.

The employees were also given ample opportunity to learn new methods in customer relations and dealing with them in a competitive environment. Despite the fact that in the legacy system of monopoly customer was never the main focus , and used to be complaining of neglect , in the changed circumstances the customer became the main focus as his delight became the main cause of our existence. The work force was tuned to meet the challenges thrown by the stiff competition and the better technology offered by our competitors In the BSNL management has to still follow the laid down procedures but our competitors are not bound by any such constraints and therefore are able to take quick decisions in deploying better technology and better products and services. It was felt that the difference being so large a number of customers will migrate to our competitors , but it was established over a period of time that the customers remained with us and exhibited a remarkable consistency of behaviour. The customer also felt that the PSUs is more accountable to them compared to a private operator and therefore remained with BSNL despite a number of allurements offered by them. It was a matter of satisfaction to see the marked change in the behaviour of our linemen and the field staff who went out of the way to improve the service delivery to our esteemed customers and thus retained our business. It was also a challenge to convince our staff to keep trying as the

old habits of ignoring the customer demand took quite some effort to change. We also took help from the Unions who formed special groups and kept on educating the line staff for the need of a rapid change. It was impressed on them that the migration of customers will effect the profitability and even the job security of the BSNL employees. This had a remarkable impact in bringing about a change in the mind set of the people. We have discovered that the insecurity is one of the major motivational force to bring about a change and this was the case in BSNL as well.

The old adage, 'fear is the key', proved itself beyond doubt in this case.

Organisational hygiene was another matter which went through major improvements. Earlier in the life of BSNL it was felt that we must move out of the old cradle of sanchar Bhawan. It was also a pressing need for the parent organisation-Ministry of Communication who wanted space for the new offices and infrastructure needed for the monitoring and for other regulatory functions. It is noteworthy that the building which could more or less house all the functions earlier ran out of space as soon as BSNL was carved out of the Ministry.

BSNL Management therefore decided to move out of the Sanchar Bhawan complex and into a new address. For this purpose a new accommodation was hired in one of the most impressive building namely the statesman house at a high cost. Keeping in view the need and the requirement for a basic change in the mindset this was a very wise decision Taken by the management, specially Dr. Seth who motivated the executives to hire this accommodation on the basis of need and justification was accorded by the Board. Further expansion was made by hiring more space in the same building at a higher rate . This was reported against to CBI and thorough inquiry was made by them , only to find that the action taken by the management was correct and in the interest of BSNL , because it was inferred that had two different buildings not only would have cost more in terms of operating cost but would have also resulted in loss of efficiency due to avoidable movements of the files.

The incidence demonstrated the kind of constraints PSUs face in terms of accountability and transparency. Whereas there be any objection to the transparency and accountability , it establishes the fact that PSUs have to take decisions keeping in view all the parameters. In the retrospect the shifting of the offices to the new address provided a sufficient motivation towards building up a new

corporate culture and thinking.

Marketing and Commercial

One more area which was completely new to BSNL was that of marketing & Commercial. The company needed an intensive and focussed attempt at building up a brand equity as the largest and most reliable telecom operator of India. Till that time the image of the DOT was that of a govt operator moving slowly and steadily but it could not deliver a message to the customers and society at large that the company has tremendous potential to provide country wide network at the same quality and reliability as can be offered by any other operator. In this regard the lease lines and Business network is a case in study. The network provided by BSNL was the most reliable and far reaching than any other operator . it is a fact that the banking network and the business network of a large number of enterprises still rides on the BSNL Long distance network.

Similarly the power to connect the country was the best as far as telecom operators were concerned. It needed quite an effort to work in that direction. Even appointment of ad agency was a major problem as the system had no guidelines on the subject and the rule of appointing people at the lowest rate confirming to DAVP guidelines was not possible. If a low value campaign was carried out it would have resulted in total loss of resources without any return. In this case an empowered committee was setup which was delegated financial and operational powers to implement the policies enunciated by the Board. The decision and empowerment resulted in remarkable results in terms of building up of the Brand equity and awareness of the company in the electronic media and print media. BSNL also started sponsoring a number of important events specially the Cricket matches as one of the key sponsors. On the AIR a special campaign called "*BSNL KA Chauka aur Chhakka*" became a very popular means to advertise the name. This was a very imaginative campaign and although the cost involved was only a few lakhs per match it had the highest impact on the building up of the Brand equity of the company.

Mention needs to be made of the company logo "Connecting India" which was introduced by me and found an immediate acceptance by the Board and till date remains the most prominent logo of the company. It also represents the true picture of the company as a Pan India corporation. In the present difficult times when so much of differences are emerging BSNL continues to be the major force

cementing India from Kashmir to Kanyakumari and Dimapur to Dwarka. It also brings in a sense of pride in the minds of our employees who feel that their job is to connect India throughout the length and breadth of a subcontinent. BSNL in this area has emerged as a major player and has demonstrated great strength although when we started we had no expertise in this area. A survey has indicated that in terms of Brand recall we are very near the top, second only to Hutch who had spent a huge amount of Money and effort besides having a very powerful advertising campaign carried out through their mascot PUGH puppy. BSNL also introduced famous film stars namely Priety Zinta and Deepika Padukone who brought about a major impression in the minds of people about the reliability and reach of BSNL services.

In all these campaigns, management always took extra care to bring about the basic features of the organisation specially its efforts to reach the common man and to provide him facility to talk to their near and dear once. The underlying theme of all these campaign "*Apanoo se apnoo kee baat*" *These campaign was have gone to establish a brand for the company and is now very well known throughout the length and breadth of the country.*

The company has also been introducing new systems for the installation and commissioning of new connections which was earlier carried out through the system of OB number. This system was introduced long time ago and did not get modified over a period of time due to the effectiveness of the system. However it was soon realised that the system suffers from the basic problem of inherent delays and in the present era of our competition when telephone can be provided by a mere telephone call or an sms on a mobile phone the system of OB number and the cumbersome process of follow up of the same is detrimental to the growth and customer satisfaction. The system has been automated and distinct improvement has been brought about in the provisioning. Although we have to go a long way in this direction, i feel that a positive development has taken place in this area. BSNL is at present going through the exercise of Business process engineering and some of these areas are being looked into with special emphasis.

In order to carry out efficient marketing BSNL has also appointed the selling agents and marketing agencies and all the other instruments followed by other companies are being implemented.

Project Management and implementation of PROJECTS

Another area which is the strongest in the case of BSNL which

has made a major impact is the project implementation. The expertise gained in the area of telecommunication has been of immense help in expanding the network and installing new technologies. Specially the GSM and CDMA is remarkable. The commissioning of the GSM network was carried out in a record time of six to eight month as soon as the license was granted to BSNL. Although the company was the last to enter the market –almost after six years of the competitors it soon shot up to second position in all the circles and was about to attain number one position in India as the largest GSM service provider.

The success of the GSM services can be attributed to the inherent strength and existing infrastructure of the network which was one of the best in areas outside the metro cities. The impact of the service and the business and marketing mode was so powerful that all the other companies started following the model of going to the remote and rural areas taking a clue from BSNL marketing strategy. Hitherto all the other operators had been pursuing the policy of implementing the system in Urban areas assuming that the demands only exist in these centres only, however when BSNL discovered that the demand is much more in the Rural and semi urban centres all the other operators started going into these areas. The growth of the Cellular services showed an explosive growth which was not seen in the market so far. It was achieved after BSNL introduced a tariff which was affordable and almost close to the fixed line tariffs. The services were offered at the cost affordable to a common customer and also at their doorsteps. It also demonstrated the strength of the Corporation and the knowledge of rural customer more than any other operator.

BSNL management has initiated a process of quick approval and implementation of projects as also the process of outsourcing the turn key projects to the technology providers This is one area where they have almost emulated the competition who normally give the projects on a turnkey basis to the suppliers. The outsourcing has reached a level where everything concerning maintenance and marketing and project implementation is being out sourced. In respect of BSNL the maintenance and all the other jobs are being carried out by the in house faculty. It is also planned to take up the project implementation also as an in house activity as was done in the past.

Immediately after formation a need was felt to recruit new engineering graduates to augment the technical resources in HRD. Therefore a large number of graduate engineers were recruited through

the All India Competitive exam. The number of persons recruited is close to 10,000 graduate engineers; these people have been designated as Junior Technical Officers. With the involvement of these officers the quality of service and the maintenance has suddenly shown a qualitative improvement. These engineers are professionally inclined and are tuned to IT and new technologies. Recently some concerns were expressed by these JTOs on the issue of promotion and future career prospects which is being resolved; notwithstanding these small problems the company has on date the largest number of technical manpower ready to take on any challenging task anywhere in the country.

Finance & Accounts

The company has introduced a number of new techniques and methods for the better customer satisfaction by introducing easy methods of Bill payment. In addition the customer is being provided information and assistance which remains a major concern for them next only to the quality of service.

Finance wing of the organisation has suffered a major overhaul and complete transformation . the company had at the time of formation no detailed records of the assets and liabilities as is required by the normal standards of accounting practices. In addition the assets acquired during the long history of the deptt were not acquired in the manner a business enterprise does it. Land was acquired by the deptt through the process of land acquisition followed by Govt deptt. The system therefore till this date does not have a formal ownership of the assets as is available to all the other companies. The process of asset verification and reconciliation which alone is amounting to a total of approximately 1Lakh crores is still going on.

When BSNL was formed the company did not have an account in the bank and enjoyed powers to draw unlimited amount from Reserve bank of India /SBI. DOT never operated with an opening balance and therefore like any other Govt Deptt enjoyed the power to draw any amount of money from the bank. All this underwent a change in one day when the company was formed. Govt asked us to open an account in Bank in the name of BSNL and an amount of some few hundred crores was transferred to run the business. This was a very difficult change and was managed with elan and hard labour by the finance wing. The company discovered that no single bank can cater to the need of the organisation and therefore four five nationalised banks were brought in to service. Contribution of State bank Of India deserves

special acknowledgement as they were the only bank which could closer to providing services throughout the length and breadth of the country. The description of all the efforts that went into it will require a full lecture and I may not be able to describe it in one lecture but it will suffice to mention that the system of working capital management has been unique in addition to tools and techniques of Treasury management has been introduced within the ambit of govt. Guidelines. The magnitude of the task can be gauged by the simple fact that company collects close to rs. 40,000 crores and disburses close to 45,000 crores as expenditure including capital expenses. The total turnover in terms of receipt and remittances is to the tune of almost 1 Lakh crores. All this takes place without any difficulty and in the most efficient manner is a tribute to the existing system and modification and ultimately to the honesty and hard work carried out by the finance executives of the organisation.

In order to build expertise in financial matters professional Chartered Accountant and MBAs have been recruited through similar exams as JTO and are called Junior Accounts officers they have brought in expertise at the level of any private business or International business. Special expertise has been developed in the area of income tax and taxation in general. We have discovered that the process of tax collection is very difficult, cumbersome and invariably ends up in litigation in the courts and appellate authorities. BSNL has fought some of the landmark cases upto the level of the Hon'ble Supreme court specially the case concerning the imposition of Sales tax on Telephone services. Despite the fact that the company was paying 12.5% service tax an additional sales tax was imposed by the states which created extra burden on the operations and ultimately on the customers. This would have resulted in additional tax burden which would have added up to a total of 25% making it difficult for the customers to afford the services and also ultimately reducing the growth. BSNL took up the case and great efforts were put to convince the Hon'ble Supreme Court. In a landmark Judgement Justice Ruma Paul ruled that the Telephone services are not a sale of goods and therefore cannot be taxed on the same lines as sale of other items. This landmark judgement was hailed as a major victory by all the telecom operators and BSNL emerged as a leader in the Industry on account of this effort as the industry heaved a sigh of relief at the withdrawal of the additional tax on the customers. Continuance of this tax would have resulted in the decline in growth of telecom sector due to the inability of the customers to meet such high rates of tax.

BSNL has also created a very low rate of tariff for the Cellular customers. The finance wing along with all the other concerned departments specially the Marketing and Commercial wing has developed an expertise in arriving at the tariff based on costing and traffic data, at the same time a future projection of volume growth and impact on the net work has been used to arriving at some of the most aggressive tariff plans. BSNL was perceived as a dumb operator coming out of the Govt system and the perception was that with aggressive tariff plans and marketing push all the customers will migrate to the new operators. This could not happen and the customer base of the company increased more than 2.5 times after conversion is a tribute to a number of people who were involved in establishing those practices. It will be not proper if I mention a special name here but in all humility I would like to mention that a team was assembled by me in finance which took the initiative in this regard and did remarkable work. For the first time finance wing took the lead and the tariff was issued with the participation of all the people involved. In the DOT days tariff was treated as a highly confidential matter and few people only could decide the tariff once in two years or even in five year span. This underwent a change to an extent that in the very first year of our operation we issued more than 150 tariffs orders following all the guidelines of TRAI. This was unimaginable in the earlier DOT regime.

I would like to mention here the challenges faced in such rapid transformation. Cases of inquiries were brought against us charging us for the loss of revenue to the govt due to the reduction of tariffs. It took some effort to convince the vigilance and the Audit that if the tariff would not have been made competitive the customers would have migrated to our competitors converting BSNL into a sick Company overnight. It was a difficult task to take bold decisions in those days as the other system of accountability and vigilance did not orient themselves to the realities of doing business in a competitive market with rapidly changing technology. The process of accountability and the monitoring has yet to change and will prove to be a Waterloo for the PSU if enabling support is not extended to them. Little wonder that the companies are increasingly becoming sick as a result of excessive controls and extra pressures of all types and various negative influences.

BSNL has so far demonstrated that one can still survive despite being slow and steady. We all know the story of the Hare and the Tortoise who ultimately won the race. But if the rules of the game

are not revised tortoise is bound to loose in the long run.

* * *

MOBILE TELEPHONY – EXTENSION TO THE UNREACHED

*T.N. Sudhindra Kumar, ITS
Chief General Manager Telecom, BSNL, AP Circle*

Growth of Subscriber Base (in millions) from 1998 to 2009

Year	Total connections in millions
March 1998	30
March 1999	40
March 2000	45
March 2001	50
March 2002	60
March 2003	65
March 2004	80
March 2005	100
March 2006	150
March 2007	210
March 2008	300
March 2009	440

Growth of teledensity from 1998 to 2009

Year	Teledensity
March 1998	5
March 1999	6
March 2000	7
March 2001	8
March 2002	9
March 2003	10
March 2004	15
March 2005	20

March 2006	27
March 2007	39
March 2008	48
March 2009	65

Bharat Nirman:

No. of Villages in India: 66,822

No. of villages in Andhra Pradesh : 1074 (675-BSNL; 340 TATA; 59 technically not feasible)

A.P as per Census 2001:

No. of Village	:	26613
VPTs provided by BSNL	:	21682
VPTs provided by Other operators	:	845
Balance Villages to be covered	:	4086
No. of Villages covered by GSM	:	17932
No. of Villages covered by CDMA	:	21794

Plans to cover the balance villages

Landline	:	99
WLL	:	1672
GSM	:	132
DSPT/WLL	:	2183
TOTAL	:	4086

USO funding is being utilized for the following activities under various agreements

- VPTs – OPEX (OP & Mtce)
- Replacement of MARR VPTs after 01-07-2003
- Replacement of MARR VPTs between 01-04-2002 to 30-06-2003

- RCP (Rural Community Phones)
- VPTs (in uncovered villages as per 1991 census)
- RHDELS installed between 01-04-2002 to 31-03-2005 (in 117 specified SDCAs)

USO funding is being utilized for the following activities under various agreements continued.

- RHDELS installed between 01-04-2005 to 31-03-2007 (in 81 specified SDCAs)
- RHDELS installed between after 01-04-2007 to 31-03-2008 and Extended upto 31-03-2010 (in 81 specified SDCAs)
- Provision of VPTs in newly identified uncovered villages as per 2001 census
- Provision of Broadband connections in Rural areas

Block Head Quarters covered

No. of Block HQ	:	1,126
BHQ with Telephone & STD	:	1,126
BHQ with Cellular services	:	1,119

WLL Status as on 30-04-2009

WLL BTSs	:	916
Equipped capacity	:	488.25 K
Working connections	:	279049
EVDO BTSs	:	40
CDMA Internet connections	:	14972

* All the SDCAs are having one or more WLL BTSs

WLL Plans:

WLL BTSs	:	135 (Urban:46; Rural: 89)
Equipped capacity	:	66.05 K

All V5.2 IS 95 WLL BTSs (17 nos) will be replaced by MSC based WLL BTSs

GSM Status as 30.04.2009:

GSM BTSs	:	3300
		(Urban: 1365 Rurl: 1935)
Total no. of mandals	:	1126
No. of mandals covered	:	1119

Villages covered with GSM:

	No. of villages	covered
Villages of more than 5000 people	2,286	2,068
Villages of more than 1000 people	15,676	11,658

Growth of BSNL GSM connections:

March 2003	300,000
March 2004	600,000
March 2005	800,000
March 2006	1,300,000
March 2007	1,800,000
March 2008	2,300,000
March 2009	3,200,000

GSM Plans:

GSM BTSs' planned	:	2400
Rural GSM BTSs' planned	:	1670
Urban GSM BTSs' planned	:	730

WiMax

- Installed in Block Head quarters
- Coverage by Base station : 15 km in Radius
- Minimum Band width : 1 Mbps
- Used for providing wireless last mile access to
 - Public internet
 - BSNL MPLS-VPN

- Corporate VPNs
- Intranet in a secure manner
- Voice (over IP)
- Broadband VPN
- Video and data based service with differentiated priority levels for different clause of service customer

**Wimax Plans:
Phase – I**

Cost of the equipment (Excluding infrastructure)	: 26 crores
BTS make	: Pointred
BTS model	: Point Max 3000
BTSs planned	: 184
Villages covered	: 5600
Common Services Centers covered	: 979

**Wimax Plans:
Phase – II**

BTS planned	: 317
Common Services Centers covered	: 439
Village covered	: 1000

* Frequency of Operation :2540.0MHz

Social Marketing by BSNL to Rural India :

- ❖ BSNL, as a Government of India Enterprise is committed to adopting Social Marketing, that is, marketing aimed more at social service rather than profit maximization
- In rural areas, while the per DEL (Direct Exchange Line) cost stood at Rs.2400/- (in case of rural C-DOT exchanges), BSNL is offering rural plans with a range from Rs.50/-, Rs.75/- per month. with free calls are 75
- ❖ Similarly, rural broadband services are offered at a very cheap rate as low as Rs. 99/- per month.

Landline/ GSM benefits to Rural areas :

- ❖ Excellent communication facilities during the times of natural calamities
- ❖ Better communication facilities facilitate better social integration vis-à-vis National integration
- ❖ Establishing connection across the globe and thereby facilitating the development of global village concept
- ❖ Global concepts, views and opinions implementation from local perspective and thereby 'Glocal ' concept came into being.
- ❖ Emergence of GSM brought communication and information revolution to the far-flung villages in general and to the villages located in hilly terrains in particular
- ❖ Control of terrorism and secessionism by keeping the advanced communications networks at the disposal of state machinery and citizens at large

Broadband benefits to Rural areas :

- ❖ Important government schemes launched for public are available apart from information such as transfer of information/messages instantly through personal e-mail,
- ❖ Availing the best e-governance
- ❖ Voter Card
- ❖ Driving license
- ❖ Passport registration, etc.
- ❖ Enjoyment of music, watch movies and play video games and many more are also possible through BSNL rural broadband service
- ❖ Latest information on agriculture/crops/markets for farmers and other professional workers.
- ❖ Education and Online lessons,higher education opportunities for students, etc.
- ❖ Similarly, they can have information on employment, Bus/ Train/Flight and Online reservation.

Constraints

- ❖ Power Supply
- ❖ Permissions for Cable Laying (from multiple agencies)
- ❖ Low ARPU

- Lack of Regional Content in Broadband

Applications:

Service	Code
Health Information	104
Road Accident/Fire/ Emergency	108
Police	100
Kisan helpline	1100
Pollution control	1074
Crime	1090
Aids control	1097
Child enquiry (Missing)	1098

Emergence of Common Service Centers

Under national e-Governance Plan, DIT has to set up 1,00,000 ICT enabled kiosks known as Common Service Center(CSC) in rural areas for provisioning of Broadband based services.

Broadband connectivity to CSC will be provided by the BSNL and a special tariff for the purpose has been offered

Available plans are viz; Plan-400, Plan-1000, Plan-1500

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QUALITY OF SERVICE CUSTOMER'S PERCEPTIONS

*Maj Gen (Retd.) Dr R K Bagga AVSM
Advisor, IIIT-H
President, TICA*

**QOS-CUSTOMERS EXPERIENCES
TELECOM**

ESSENTIAL/UTILITY NUMBERS NOT AVAIABLE

- RAILWAY, AIRPORTS, EMERGENCY, POLICE, HOSPITALS, GOVT OFFICIALS (LAND LINES & MOBILES BOTH)

- * The network is busy. Try after some time!
- * The called number is out of range !
- * The called number has switched off !
- * Calls drop as we are moving

- * Speech goes on cutting; we have to ask for repetitions;
- * Annoyance; and worse, one more call and an extra expense.
- * IVR IS DEADLY CUMBERSOME!
- * RING TONE -MUSIC
- * AUTOMATIC DOWNLOAD
- * NO MARKETING-BAR -TOO MANY
- * UNECESSARY SMS/CALLS
- * DND - NOT IMPLEMENTED YET
- * AIRTEL/TATA???????????
- * THEFT PROOF FEATURE???
- * INTELLIGENT/SMART DEVICES???
- * REFUNDS IMPOSSIBLE
- * TOO MANY OPTIONS NOT REQUIRED

QOS-CUSTOMERS EXPERIENCESINTERNET SERVICES

- * DOWNLOAD SPEED-LOW
- * CONNECTION BREAKING
- * CHARGES POLICY NOT CLEAR
- * LOCAL SUPPORT NIL
- * ONLINE CALL CENTRE POOR
- * SPAM EMAIL-60%
- * VIRUS, HACKING PROTECTION.....
- * VERY VERY EXPENSIVE

SOME CASES:

- * DPS & BAZEE.COM
- * TV EXPOSES OF POLITICAL LEADERS
- * HYDERABADI HARASSED THRO GF
- * SEXUAL HARASMENT-PORNO EMAIL
- * XEROX CORP SACKS 40 EMPLOYEE FOR SEEING PORNO SITE DURING OFFICE HOURS

- * CREDIT CARD FRAUDS
- * CYBER POLICING???
- * LEGAL REMEDIES???

REQUEST TO ALL-SELF HELP :
TELECOM:

- * DO'S & DON'T FOR COMMON CITIZEN ?
- * Answer promptly; announce the number or the name
- * Begin with "Namaskar"
- * Keep a scribbling pad, pen/ pencil near
- * If NA take down the callers' number
- * It is a mark of culture to return calls
- * Don't speak loudly
- * Don't take calls when you are in conversation with a guest/ giving an interview to somebody by appointments. By taking such calls and keeping the person waiting is discourtesy and betrays lack of culture
 - * Just as there are no smoking and smoking zones, there should be no speaking (on telephone) zones such as places in waiting rooms, in front of lifts, in the train, office corridors, reception rooms etc.
 - * Don't speak on the cell phone while waiting for a lift or in the lift. People speaking on the closed space of the lift is down right barbarism; fowl smell, noise, annoying content of private conversations are unbecoming of properly brought up educated ladies and gentlemen.
 - * While traveling in the closed space of rail bogies/aeroplanes use of mobile phone is totally annoying the co-passengers; avoid that; go into the lavetry and talk, if you must.
 - * Don't receive or make calls on mobile while driving; even if no harm is done to you

REQUEST TO ALL-SELF HELP :
INTERNET:

- *Use only Legal Software
- * Use virus protection software

- * Use a firewall
- * Don't open unknown e-mail attachments
- * Don't run programs of unknown origin
- * Disable hidden filename extensions
- * Keep all applications (including your operating system) patched
- * Turn off your computer or disconnect from the network when not in use
- * Disable Java, JavaScript, and ActiveX if possible
- * Disable scripting features in e-mail programs
- * Make regular backups of critical data
- * Make a boot disk in case intruders damage or compromise your computer
- * Have security policy
- * See it is known, ensure its implementation
- * Use encryption on sensitive files
- * Password guidelines
 - * Treat your password as your "tooth brush"
 - * use every time
 - * change regularly
 - * never share
- * Do risk assessment
- * Have regular back up
- * Do not trust any one
- * Be prepared for "worst case scenario"
 - ❖
 - ❖
 - ❖

For papers and articles of Dr T H Chowdary Please visit

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PROTECTING CHILDREN IN CYBERSPACE

- G.V. Gopichandran
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One of the greatest advancements of the 20th century was the development of the Internet. This global communications system has revolutionized the way the world shares information and conducts commerce. It is a remarkable tool that has truly made the world a much smaller place. The ability to do research, share information, diagnose disease, and engage in commerce has been forever changed by the phenomenon that is the World Wide Web.

But with any unregulated medium, there is a dark side. And those who are sadly most impacted by this are often children. Instantaneous access to virtually anyone, anywhere has made it possible for those who prey on children to have a back door to enter the homes of unsuspecting children and prey on those least capable of caring for themselves. The goal is to raise awareness among parents, educators, law enforcement, elected officials, and communities at large about the dangers that lurk on the Internet and how to proactively combat these threats. In particular, communities need to come together to battle the growing threat of Internet predation against children.

More than 35 million children between the ages of 5 and 17 currently have internet access, and this access is often unsupervised. At any given time, there are more than 3,000,000 people in anonymous chat rooms and their identities are often unknown (or disguised). 1 in 5 middle school, junior high and high school students have met face-to-face with someone they first met online, and this number is growing at an alarming rate. According to the National Center for Missing and Exploited Children, 1 in 7 youth (between the ages of 10 and 17) received a sexual solicitation or were approached in a sexual manner while online, yet few of these incidents are reported to parents, guardians or law enforcement personnel.

At present, pedophiles maintain and operate more than 10,000 known websites worldwide, with many hosted outside the US in countries who turn a blind eye to the exploitation of children. Pedophiles maintain a sophisticated network to share strategies, pictures, video, and gloat of their successes. Yet the resources devoted to stemming the growing tide of Internet predation is miniscule when

compared to the threat. Filtering software is an essential tool to protecting children, but it is not the only tool. Industry statistics indicate almost 1 in 3 children who are online have the technical skills to circumvent most Internet filtering software, and nearly 2 in 3 children admit to using the Internet in an unsafe or inappropriate manner. Educating children about the dangers that lurk online, and monitoring their activities is an essential component to minimizing the risk of inappropriate contact or harmful content being delivered to your child while online.

Another growing area of concern is the alarming rise in cyberbullying. Cyberbullying is any act to defame, humiliate, blemish, damage, degrade, denigrate, smear, malign or disgrace another person through online postings, email, text messages or instant messaging. Cyberbullying can take the place of posted pictures or text on a website (or inserted into an email or instant message) or any electronic form of threat, menace, ridicule or inappropriate verbiage (or images) to offend, denigrate, embarrass or humiliate another person. The threats can range from comments like, "You're a loser!" to "The only way for you to get respect is to kill yourself!"

The impact of cyberbullying can be devastating. Victims of cyberbullying suffer from embarrassment, depression, a sense of worthlessness, and in severe cases can lead to drug or alcohol abuse and even attempted suicide. More work needs to be done to stem the growing plague of cyberbullying that has become the bully's medium of choice in the 21st century, and serves to remind us all that with freedom comes responsibility, and an obligation to look out for those under our care. The Internet offers a wealth of knowledge, resources, games, and entertainment that can (and should) be enjoyed by everyone. However, with the freedom that comes from an unlimited, unregulated communications network also comes the need to be diligent and aware of the dangers that lurk therein. Numerous resources are now available to help minimize the risk of being victimized online.

It behoves all families who have children who are online to become cognizant of the dangers that exist on the Internet, and to establish protocols to minimize the risks these dangers present. Simple things like not giving out personal information to anyone online are a good starting point. Utilizing Internet filtering software, antivirus protection and an active firewall on your computer is essential.

If you detect changes in your child's demeanour while or after they have been online, ask open ended questions. They may have been the target of a cyberbullying attack or approached by a predator. Children need to know they can talk openly and honestly with their parents without fear of negative or overly emotional reactions. If a child is the target of a cyberbully or predator, they need to be taught to immediately tell a parent or guardian and steps to preserve the communication need to be taken.

Most important, talk to your children about the threats they may encounter on the Internet. They will appreciate your honesty and the fact that you showing interest in their welfare and well-being. While they may not fully grasp the seriousness of the threat, your personal input in cautioning your children as to the dangers faced and the fact they can come to you at any time with their concerns helps empower them when online. By establishing online time limits, guidelines for Internet use, and explaining that you as a parent reserve the right to monitor their activities at any time also lays the groundwork for a safer, more enjoyable Internet experience and reduces the risks that your child will be exposed to the "dark side" of the World Wide Web.

And with Cyberstalkers , Paedophiles , **and** Cyber Criminals on the prowl in chat rooms **even in India**, children and parents certainly need to be still more cautious in cyberspace. Even if you use every protection available, unless your children know what to expect and how to react when they run into something bad, your children are at risk. **Arming them well, means teaching them well.** This is more important than any software or hardware device you can buy. We can begin to educate our children & ourselves about dangers in cyberspace. Protecting our children on the Internet is a shared responsibility!

Cyber laws and content filters can only have limited effectiveness. Parents must supervise children online to make sure that they are protected from harmful content and to insure that youngsters know how to avoid the sexual predators they could meet in the anonymity of cyberspace.

You are not powerless, and you are not alone!

Remember there is no substitute for good parenting, and no software can replace trust and communication. Some offensive material

could inevitably slip through filters. Technology shouldn't be a babysitter and considered the solution. It's a tool available to help knowledgeable parents enforce their choices, nothing more. It's not a magic wand.

"The best way to assure that your children are having positive online experiences is to stay in touch with what they are doing."

Safety in Cyberspace - Internet Luring

Safety in cyberspace does not differ greatly from other child protection approaches. However, the difference lies in the fact that the average child probably knows more about the computer and Internet than their parents do. If this situation exists consider the following:

Be Informed

Take lessons and learn to use the Internet yourself. Set up a parent support group and learn from each other. Invite special speakers to talk to your group.. Sit down with your child and talk about their computer interests, Internet friends and especially be aware of any communications with adults. Watch, learn and ask questions in a non-threatening way.. Be informed of the dangers of the Internet.

Be Smart

Set the rules for Internet use, including when and how long your child can go on-line. Have your child use a code name while on-line. Change passwords frequently. Periodically view the history of their chat line. Advise children not to give their name or family names, addresses, telephone numbers, the name of the school he/she attends, parent's workplace or any other pertinent identifiers that might help a predator locate them. Also, advise them not to discuss family vacation plans and other pertinent information over the Internet. This might result in a house burglary or car theft while the family is away from home; or may lead to an abduction.

Be Alert

Watch for signs of behaviour change, such as: withdrawal, from conversation regarding Internet activities; attempts to be secretive; noticeable signs of embarrassment when asked certain questions about activities; and the apparent use of language uncharacteristic of the

child's age group. Also, question activities involving the scanning and sending of photographs, particularly of *self*. Predators often request photographs for personal use or mass distribution. Look for hidden photos of children and adults having sex, which are often used to break down the child's inhibitions. Report any on-line activity to police considered potentially dangerous.

Some Internet Luring Flags for Parents and Caregivers

The child or youth:

- ❖ is obsessed with computer activity
 - ❖ has none or only a few friends - seems to spend all his/her spare time on the computer
 - ❖ shows noticeable changes in character and behaviour
 - ❖ appears secretive and non-communicative regarding computer met friends and activities
 - ❖ seems unusually preoccupied with chat room communications
 - ❖ appears sheepish and uncooperative when asked about computer activities
 - ❖ changes the screen or shuts off the computer when an authority figure enters the room
 - ❖ receives questionable mail, e-mail, gifts, packages
 - ❖ receives excessive telephone calls from adults or friends not known well to the family
 - ❖ requests photos to be taken of *self* and scanned by computer to send to friends
 - ❖ changes the style of dress suddenly and uncharacteristically seems to dress to look older, and perhaps more seductive
- downloads offensive materials found by parent, such as: pornography

If you notice changes in your child's appearance, behaviour and activities, approach them in a non-threatening way and discuss your concerns. Your approach will determine your success in determining their activities or the nature of the way they respond. Protecting your child and youth in cyberspace requires **Team Work** - you and your child, and you and your friends and neighbours. So don't shy away! **Be Informed, Be Smart and Be Alert . Your child's safety is in your hands.**

How to Protect Your Children's Privacy and Safety in Cyberspace

1. Never reveal personal information. It needs to be drummed into kids they can never give away any real aspects of their identity. This includes information such as name, address, phone number, school, and parent's work address. If this kind of information is needed to register with a web site, parents should get involved.

2. Use only moderated chat rooms. Chatting won't go away, but it can be made safer. Parents should be just as wary of who their kids talk to online as they are in person.

3. Talk about bad experiences. Children need to understand that they can talk to their parents if they come across something that makes them feel uncomfortable while online. Discussing issues with an adult they trust will help them to realize that a bad experience is not their fault.

4. Spend time with children online. Being online is no different than being outside; you always want to know where your children are and become familiar with the places they visit. Learn about their favorite sites and online friends. Going online is a big part of your kids' lives, and it's important that you share in that.

5. Never meet online friends in person. Online, it's easy to be someone different. People who seem friendly online may be of questionable character in reality. If a child wants to meet an online friend, make sure that it's done only under strict adult supervision, and in a public place.

6. Be mindful of viruses. Tell kids to be extremely careful of email they get from strangers. Besides containing inappropriate material, it could have viruses that lodge inside PC and leave it vulnerable to attack.

7. Think twice about sending pictures. Sending family or school pictures to family and friends online is fine...as long as it's done with a parent's permission. However, sending pictures to strangers is unacceptable under any circumstances. In the wrong hands, these pictures can be used for a variety of sinister purposes.

8. Avoid using real last names. Don't give people, friends or otherwise, more information than they need. This is especially important if the situation appears to be unusual. Instead of using your real last name, for example, it's a safer bet to use your middle name,

or just make one up.

9. Stay away from offensive web sites. Tell children that they need to trust their instincts when they come across a web site that makes them uncomfortable. Tell the kids it is okay, as long as they get out of that site.

10. Never share passwords. Impress upon kids that passwords are not to be shared with anyone. In fact, no reputable online service would even ask for it. That's why, if any site asks for a password, kids should tell their parents about it. And the parents might want to tell their Internet service provider, or even the Better Business Bureau.



PROTECTION OF CHILDREN IN CYBER SPACE

- Dr T.H.Chowdary

Cyber Space:

- ❖ The borderless, global network of millions of computers and websites over the telecommunications infrastructure of electronic-photonics highways.
- ❖ Cyberspace is under no one government's control
- ❖ It is like the Trisanku Swarga created by Viswamita; not on earth, not in the Heaven (of Indra)
- ❖ It is like the all-pervading air and can be connected to, over air by PCs, lap-tops, cell-phones

Why Cyberspace is becoming a menace:

- ❖ It is accessible by cell phones (not only by PCs)
- ❖ There are 4 billion cell phones sets in the world; >400 mln in India
- ❖ In cyber-space are stored information(s) of all sorts in text, picture & voice.

Crimes in Cyber Space:

- ❖ Hacking, Phishing, frauds, terrorist networking are by and for adults.

- ❖ Children, youth & women connecting to cyber space are increasing; immature, innocent; indiscrete; so vulnerable to deception and victimisation.
- ❖ Anonymity and spatial distribution aid the ill-intentioned
- ❖ Laws and law enforcement vary across countries; so are definitions of crimes and scales of punishment
- ❖ Greatest difficulty in bringing criminals to justice when the victims and criminals are in indifferent countries

Cyber Crimes against Children and Teens:

- ❖ On the increase
- ❖ Most in the USA & EU
- ❖ Girls spend more time in cyber space
- ❖ more risk of victims of crime
- ❖ Cyber Stalking
- ❖ Cyber Harassment
- ❖ Cyber Bullying
- ❖ Pictures and personal details
- ❖ Manipulated for pornography
- ❖ Extortion, blackmailing and flesh trade

Laws and Enforcement:

- ❖ Numerous; determination & deterrence in the USA
- ❖ Congress Civil Society, IT companies are in coalition
- ❖ Part of Homeland Security Department
- ❖ In China-30,000 Cyber Police
- ❖ China's effort to wean children and teens away from net-use
- ❖ China has de-addiction (Internet) clinics and counsellors

Cyber conduct for Students, Parents & Teachers :

- ❖ Respect and protect the privacy of others.
- ❖ Use only assigned accounts.
- ❖ Not view, use, or copy passwords, data, or networks to which they are not authorized.
- ❖ Not distribute private information about others or themselves.
- ❖ Respect and protect the integrity, availability, and security of all electronic resources.
- ❖ Observe all network security practices, as posted.
- ❖ Report security risks or violations to a teacher or network administrator.
- ❖ Not destroy or damage data, networks, or other resources that do not belong to them, without clear permission of the owner.
- ❖ Conserve, protect, and share these resources with other students and Internet users.
- ❖ Respect and protect the intellectual property of others.
- ❖ Not infringe copyrights (no making illegal copies of music, games, or movies!).
- ❖ Not plagiarize.
- ❖ Respect and practice the principles of community.
- ❖ Communicate only in ways that are kind and respectful.
- ❖ Report threatening or discomfoting materials to a teacher.
- ❖ Not intentionally access, transmit, copy, or create material that violates the school's code of conduct (such as messages that are pornographic, threatening, rude, discriminatory, or meant to harass).
- ❖ Not intentionally access, transmit, copy, or create material that is illegal (such as obscenity, stolen materials, or illegal copies of copyrighted works).

- ❖ Not use the resources to further other acts that are criminal or violate the school's code of conduct.
- ❖ Not send spam, chain letters, or other mass unsolicited mailings.
- ❖ Not buy, sell, advertise, or otherwise conduct business, unless approved as a school project.

Mould the Child:

- ❖ As a cultured person who voluntarily obeys unenforceable laws and rules
- ❖ Who never inflicts pain on others
- ❖ Who adds to the sum total of happiness in the world
- ❖ Vodi (Mother's laps); Badi (school), Gudi(temple, church, mosque, Gurudwara...)

US Experience:

- ❖ Children & teens driven to withdrawal from schools & to suicide
- ❖ Lured into illicit liasons, marriages & divorces
- ❖ Lured, taken captive and ransomed
- ❖ Drawn into pornography and flesh trade

Form, create the moral person:

- ❖ To know more go to

www.OnGaurdOnline.gov

www.playitcybersafe.com

www.safetysafeonline.org

www.safetyclicks.com

- And read the article:
- "Safety Tips for Teens and Tweens"
- Going to social Networking Sites in the journal, ICTs & Society of the CTMS: May 2009 Issue



QUALITY OF TELECOM SERVICE

- G. P. Reddy
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Importance/Impacts of QOS:

- ❖ Numbers to start with to grow
- ❖ Quality to sustain growth
- ❖ Any start up company would naturally concentrate on numbers, because any business would be viable only with a critical mass. Therefore main thrust would be to grow in numbers.
- ❖ But having established thus, to sustain the business and not to let the growth slip down, Quality of Business /Service becomes essential.

Historical Perception:

- ❖ Telephone perceived as Luxury – not a common man service
- ❖ Drinking water is more important than telephone

Resulting in what QoS

- ❖ Huge waiting lists, categorization
- ❖ Congestion at every stage
- ❖ Wait for telephone connection; Dial tone
- ❖ Dial and pray for the correct number to be connected
- ❖ Wrong numbers
- ❖ Focus on reducing the load in the network
- ❖ More usage, Higher tariffs
- ❖ **Thanks to technological developments**
- ❖ Wrong numbers are rare
- ❖ Call not matured in first attempt – No more
- ❖ STD – Subscriber To Dial (and the call is through)
- ❖ Thanks to the de-monopolization / liberalization.
- ❖ Waiting lists vanished
- ❖ Prices crumbled

Telecom Subscriber -What matter to him:

- ❖ Affordability

- ❖ Understandable tariff plans
- ❖ Promptness of provision of services
- ❖ Billing
- ❖ Rate of Service Failures
- ❖ Speed of repairs
- ❖ Durability of repairs
- ❖ Courtesy
- ❖ Reachability
- ❖ Schemes / Packages
- ❖ Dropped Calls
- ❖ Coverage

Tariff Plans:

- ❖ Understandable tariff plans
- ❖ Need not be deliberately confusing
- ❖ Let them be plain speaking – customers may choose basing on their calling pattern

Reachability:

- ❖ In BSNL we can always reach a responsible officer and easily escalate the matter where as the experience of customers with P-Telcos is that the responsible top officer is hardly reachable.
- ❖ The common reply is, “ we will come back”
- ❖ but they permanently turn their back to the customer, never to come back.

Coverage:

- ❖ It is the general observation by customers that P-Telcos and BSNL's coverage in some pockets is poor.
- ❖ Response to complaints in this respect is also unsatisfactory.

Neilson India Consumer Experience Mobile Survey :

- ❖ Neilson India Consumer Experience Mobile Survey recently conducted (19 Jan – 16 Feb 2009)
- ❖ Voice networks in India have call drop rates of 0.9% in Ahmedabad, of 3.15% in Pune and of 2.01% in Hyderabad.
- ❖ All major operators scored only 6 out of 10 rating in regard to dropped calls.
- ❖ Ineffective attempt rating: Rcom- 10; TTL- 10; BSNL-8; Airtel-

- 6; Idea-6; Vodafone-6
- ❖ Accessibility performance (call set up success rate):
- ❖ Rcom-99.8%; TTL-99.7%; BSNL-99.1%; Airtel-98.7%; VodaFone-98.7%; Idea-98.2%
- ❖ Overall rating of operators: Rcom-8.1; TTL-7.3; Idea-6.7; BSNL-6.4; Airtel-6.1; VodaFone-5.5
- ❖ India vs. US call drop rate:
- ❖ Tier-1 stations: India -2.09%; US- 0.43%
- ❖ Tier-2 stations: India – 1.43%; US-0.33%

QOS Monitoring:

- * DOT / BSNL / MTNL
- Testing & Assessment
 - Internal
 - External agencies
- Telephone Advisory Committees
- Answerable to Parliament
 - ❖ Telephone Adalats
 - ❖ P-Telcos also should conduct Telephone Adalats for speedy redressal of customer grievances.

Users Perception:

- ❖ Call drops - many while moving; for one call three payments.
- ❖ Called person unget : Announcement -network busy ; subscriber out of coverage followed by go for voice mail; pay 75 paise per voice SMS.
- ❖ No comprehensive Directory services
- ❖ Eg: from Tata Teleservices telephone one can't get BSNL's Directory Assistance.
- ❖ It is advised that a common Directory is published and a common Directory Inquiry service be provided (197)
- ❖ TRAI must open Regional Office in all State Head Quarters
- ❖ TRAI must impose fines on companies for not meeting QOS-norms
- ❖ Like Banks, Insurance there should be a Telecom Ombudsman.

General Points:

- ❖ Service providers to honour license agreements
- ❖ Trade unions (including left parties) to care for the interest of all sections of our countrymen

- ❖ We hear that some time interconnections between the network of operators are denied or delayed deliberately by the dominant of the two, with the result the customers suffer. Genuine technical or logistic reasons are ok, but not if they are cloaks
- ❖ Periodical joint meetings of all operators.

* Elsewhere, in the world, companies are facing law suites over 'unfair' telephone contracts for eg.AAPT in Australia faces charges alleging that its contracts are unfair to customers in as much as

- Making unilateral changes in some of the contract terms
- Suspending services without notice, and then
- Charging customers a reconnection fee.

Neilson India consumer experience mobile survey measured the mobile network performance for all national carriers in a number of cities covering a population of 84 mln . Here are some of their interesting findings.

(Source: Voice & Data, May 2009)

Call Drop Rate:

Market Name	Percent
Ahmedabad	0.90%
Delhi	1.46%
Hyderabad	2.01%
Bengaluru	3.09%
Chennai	3.09%
Pune	3.15%

Call Block Rate:

Market Name	Percent
Ahmedabad	0.71%
Delhi	0.73%
Hyderabad	0.83%
Bengaluru	1.02%
Pune	1.14%
Chennai	1.58%

SOCIAL BEHAVIOR IN CYBERSPACE

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India Vs US Call Drop Rate

India	USA
Tier-1 2.09%	0.43%
Tier-II 1.43%	0.33%

India Vs US Call Block Rate

India	USA
Tier-1 0.96%	0.28%
Tier-II 0.91%	0.17%

Top 10 Voice Network Cities

Rank	Market Name
1	Panipat
2	Indore
3	Amritsar
4	Vadodara
5	Ernakulam
6	Meerut
7	Trivandrum
8	Agra
9	Ahmedabad
10	Surat

The origin of internet dates from 1973. The continued growth of Internet-based technologies and the increasing emergence of mobile and wireless high-speed access dramatically affect the ways in which we work, learn, communicate, play and even govern our society. The constant availability of information and communication changes our views of our self and the social rules that govern our world. We no longer have clear demarcations of work and home or of school and recreation.

Since the 1980s, the continuing developments, changes and hybridizations in information and communication technologies have essentially influenced our ways of perceiving, thinking and behaving. The media revolution in the Internet Age affects all areas of our society.

With the advance of computers and online networks, a new dimension of human experience emerged, that is, cyberspace. When they power up their computers, launch a program, write e-mails, or browse a website, people often feel- consciously or subconsciously – that they are entering a “**place**” that is filled with a wide range of meanings and purposes. Perhaps, for this reason, the online experience involves many expressions that convey the sensation of dimension and place- “worlds, domains, sites, windows, rooms.”

What Is Cyberspace?

In his 1984 cyberpunk¹ novel, *Neuromancer*, William Gibson famously coined the neologism ‘**cyberspace**’ to describe “a consensual hallucination experienced daily by billions.” Over two decades later, this perceptive spatial metaphor has come to describe a world infused by ceaseless cyber-connections, social networking sites, and synthetic worlds. To put it more strongly, through transportable innovations (including mobile text messaging, handheld GPS devices, and wireless Internet), space and technology have become inextricably interconnected in the early years of the twenty-first century. Cyberspace is a data space. This contemporary technological transformation has transcended

the realm of technical and economic innovation. In an era characterized by a more literalized and omnipresent form of “cyberspace,” we are witnessing unprecedented social effects that include novel modes of collective and emergent human behavior.

How to comprehend cyberspace?

Cyberspace is the new frontier where new worlds, meanings and values are developed. Cyber Society focuses on the construction, maintenance and mediation of community in electronic networks and computer-mediated communication. When we make an attempt to understand the social behavior in cyberspace, it can be described as ‘cyber culture’. Dani Cavallaro² writes of cyber culture as ‘an environment saturated by electronic technology’. In operation, cyber culture is a different way of saying cyberspace. The Internet and its related technologies spill over to impact on everyday life in many different ways.

The present paper is aimed to explore the cyberspace and its impact on socio-cultural norms of Indian society. An attempt is made to understand the impact of cyberspace on our social relations. Some of the basic social institutions, viz., marriage, family, friendship, vis-à-vis internet usage are taken for analyzing the influence of cyber-culture and -cyberspace on social behavior.

Cyber culture in India:

The culture of computer and network- mediated communication is growing both in size and sophistication in our country. Sweeping reforms introduced by successive Indian governments over the last decade have dramatically changed the nature of telecommunications in the country. Internet adoption continues to grow in India³. There has been tremendous enthusiasm amongst dial-up users and an estimated 60% of Internet users still regularly access the Internet via the country’s more than 10,000 cybercafés. By mid-2008, there were almost 4.5 million broadband subscribers.

Importance Of The Study Of Social Behavior In Relation To Internet:

Why should we concern ourselves with such seemingly trivial aspects of social behavior?

First, our day-to day routines, with their almost constant interactions with others, give structure and form to what we do; we

can learn a great deal about ourselves as social beings, and about social life itself, from studying them. Our lives are organized around the repetition of similar patterns of behavior from day to day, week to week, month to month, and year to year.

Second, the study of everyday life reveals to us how humans can act creatively to shape reality. Although social behavior is guided to some extent by forces such as roles, norms and shared expectations, individuals perceive reality differently according to their backgrounds, interests and motivations.

Third, studying social interaction in everyday life sheds light on larger social systems and institutions. All large-scale social systems, in fact, depend on the patterns of social interaction we engage in daily.

Social interaction requires numerous forms of *non-verbal communication* – the exchange of information and meaning through facial expressions, gestures and movements of the body. Many observers state that the Internet is changing society and social behavior. No doubt, Internet has changed nature of social interaction and social behavior. The Internet is unique because it integrates both different modalities of communication (reciprocal interaction, broadcasting, individual reference-searching, group discussion, person/machine interaction) and different kinds of content (text, video, visual images, audio) in a single medium. This versatility renders plausible claims that the technology will be implicated in many kinds of social change, perhaps more deeply than television or radio. Besides, choices are being made—systems developed, money invested, laws passed, regulations promulgated—that will shape the system’s technical and normative structure for decades to come. Many of these choices are based on behavioral assumptions about how people interact in cyberspace. Hence, I will start with the analysis of changes in communication and social interaction in cyberspace.

How Internet Changes Social Interaction?

Cyberspace is a social world of ‘people without bodies’, because during the encounter and conversation the inhabitants of this ‘virtual world’ leave their bodies at home. Internet facilitates our exchange of symbolic information. On a deep psychological level, people often experience their computers and cyberspace as an extension of their minds and personalities – a “space” that reflects

their tastes, attitudes, and interests. Cyberspace facilitates both pro-social behavior and deviance. The present paper attempts to study both the types of social behavior in cyberspace.

Pro-social behavior

Cyberspace is indeed an **egalitarian medium** – theoretically everyone can have access and everyone is treated equally regardless of personal characteristics such as external appearance, gender, color, religion, race, age, disability, social status, and income level. People are connecting on the basis of what they have to say, and what is on their mind.

Computer Mediated Communication facilitates pro-social behavior in all aspects of our social life. Pro-social behavior is defined as 'voluntary intentional behavior that results in benefits for another'.⁴ Altruism and reciprocity are two reasons for pro-social behavior⁵.

One of the ways to understand pro-social behavior on the net is to compare and contrast it with pro-social behavior in the offline world. Pro-social behavior in the offline world is found in a variety of social contexts. These can be characterized by the strength of the social relationship among participants and the degree of organizational structure of the contexts. Social psychological research on pro-social behavior in the offline world has focused on social contexts with minimal formal organizational structure, either single acts of bystanders helping strangers or ongoing support among people with strong interpersonal bonds such as close friends or relatives.⁶ Sociological research on pro-social behavior in the offline world has focused on more highly organized social contexts, such as the self-help group and the volunteer organizations.⁷

People voluntarily help one another in many ways on the net:

5. They donate funds to worthy causes through charitable organizations online.

6. They donate idle computing power from their PCs to help scientists analyze large data files.

7. They contribute software and documentation that they have written to open-source (free) software communities.

8. They donate time and attention to electronic groups organized for socially worthwhile causes, such as electronically mentoring disadvantaged students or making public domain, literature freely available on the web.

9. They contribute time and attention to organize and maintain voluntary online discussion groups.

10. Within voluntary discussion groups, they contribute information and emotional support to one another.

Online volunteering:

The Internet is often perceived as yet another technological innovation that causes a further widening of the gap between rich and poor. However, one of the most interesting phenomena to come out of the Internet revolution is its utilization as a channel for social development. Volunteers working in task forces, who were recruited through the net, work to improve the lives of many millions of people in need throughout the world. Some of these volunteers are 'field workers', working in physical proximity to those they are trying to help, while others may be sitting at home, using their computers to help needy populations many thousands of miles away⁸.

Cyber Romance and Internet Marriages:

Social relationships can roughly be divided into *formal* (e.g., salesman - customer) and *personal* (e.g., father - son) relationships, whereby personal relationships are further divided into *strong* (e.g., friendship) and *weak* (e.g., acquaintance) ties. *Romantic relationships* (to a large extent synonymous with love affairs or partnerships) are strong personal bonds which clearly differ from family and friendship relationships because of their potential to develop into family relationships and because of their open sexuality. Studies on cyber-romance contribute to basic scientific research into social relationships, particularly, to the understanding of the impact of cyberspace on marriage and family relationships. Internet marriages, cyber love, cyber-romance have gained much importance in present day society in India. A traditional Muslim family at Lucknow, reported in newspapers on 28th April 2005, performed their daughter's Nikaah ceremony over the Internet. It is a known fact, that chat rooms smooth the progress of cyber romance.

Presently, many marriages are arranged by matrimonial websites. The top matrimony portals in the country are Shaadi.com, Bharatmatrimony.com, jeevansaathi.com and Simplymarry.com. The NRI community seeking a match from India through matrimony websites has grown rapidly in the past five years with nearly 50,000-60,000 paid subscribers signing in each year. 1.2 million applications are uploaded on these portals annually and 90 per cent of these are

done free of cost⁹.

Family relations in cyberspace:

There are few studies on the effect of the Internet on family relationships

Most researchers have focused on broad descriptions of trends in the use of the internet, such as time spent using computers and the internet and the ways in which children and adults use these technologies. Few researchers have examined the ways in which the internet has altered family functioning.

One area of speculation is whether computer technology strengthens or damages relationships among the family members. In one of the few observational studies about computers and family relationships, Orleans and Lancy ¹⁰observed 32 children between the ages of 8 and 17 on at least three occasions each for an hour or more while they did computer work on their own or with others at home. Children and their parents seldom talked to each other while the children were using computer. Generally, children used the computers independently and were more likely to talk with siblings or peers for help regarding computer problems than they were to ask their parents.

Another area of interest to family scientists has been the ways in which parents manage the use of technology. There is a long history of increasing parental awareness of media content through labeling systems, [e.g., parental advisory warning labels] and developing various parental control devices for technologies. Family scientists are in the early stages of understanding parental regulation of children's use of the internet, in terms of both managing family boundaries and dealing with dangerous situations.

Deviance on Internet

It is an unfortunate fact of life that where there are multi-user computer systems, there will be antisocial behavior or deviant behavior. In virtual worlds there are problems of theft, vandalism, and virtual rape. Behavior is "deviant" if it is not in accordance with community standards. How are such standards developed? Human societies offer a set of norms that their members are expected to adhere to. When a member of the community violates a norm, there are practical consequences that follow [e.g. banishment from the community], as well as emotional consequences [i.e. shame, guilt and

embarrassment]. These social norms are taught to the members of society from cradle to grave. This teaching –learning process is defined by social scientists as Socialization.

Socialization and Cyberspace:

Children In all societies are socialized into the moral value system of their culture, a socialization that helps them to do what is "right" and avoid doing what is "wrong"¹¹.

There are cultural invariants in moral value systems that promote the development of a coherent and universal set of morally acceptable behaviors. Moreover, within cultures there are absolutist and utilitarian perspectives which dictate that some behaviors are never acceptable [absolutist] whereas other behaviors are acceptable in some situations but not others [utilitarian]. Theoretically, different cultures provide different sanctions for children's moral conceptions and behavior depending on what is most *valued* in that culture¹².

The anonymity of the Internet, its 24/7 availability, and the plethora of "inappropriate" information and activities available online clearly raise moral concerns for youth. For example, it has already been well documented that youth view pornography online [cyber porn], download files illegally, bully friends and acquaintances [cyber bullying], interact in "intimate" ways with strangers, and "steal" information online to represent it as their own [plagiarism].

When the question of deviance among the children in cyberspace is discussed by the social scientists, two factors appear to be important: the extent to which moral character is rooted in peer approval and the extent to which peer group norms permit and/or encourage morally questionable online behaviors.

Besides, the nature of online communication promotes deviance. Contrary to what happens in face-to-face communication, in Computer Mediated Communication, the salience of self-awareness that is otherwise created by physical and social cues (e.g. facial and corporal expressions) is reduced¹³. Therefore, online, one would also expect the emotional consequences that usually follow norm violations to be experienced less acutely, offering fewer incentives for compliance.

Anonymity is a characteristic feature of online communication. The use of anthropomorphic avatars provides Internet users the opportunity and freedom to manipulate their identity¹⁴. This results in deception.

Value Conflict In Cyberspace:

Cyberspace exists on film, in fiction, in our imaginations as much as on our desktops or in the space between our screens. The difference between virtual community and 'real community' generate conflict of values. Eastern cultures value the group over the individual, and self-effacement and modesty over self-promotion and pride. These values are presumably rooted in historical, political, and religious foundations in Confucianism, Buddhism, and Taoism. In contrast, Western cultures value the individual over the group, and self-promotion and pride over self-effacement and modesty. The online communication in cyberspace brings people from different cultural groups together. People from the same culture have more or less equivalent realities and mindsets. Their values, assumptions, and procedures become part of "common sense" for them. For instance, when two parties that do not share norms of communication [customary patterns and rules of communication] and expectations about behavior must interact, they often clash.

A Case Study Of Computer Games:

An attempt is made in the present paper to examine how some of the behavioral patterns of cyberspace result in conflict of values. Behavioral patterns shown in the Computer games and in the scriptures of Hinduism are compared for this purpose. Computer games have reshaped human-computer interaction. The computer game is an interface which demands the players' intimate involvement. Its two key aims are immersion and interactivity¹⁵. Rushkoff classifies computer games into three archetypes, based on content: *duel games* [including Pong, Street Fighter, and Mortal Kombat], *quest games* [such as Adventure, Zelda, and Myst] and *apocalypse games* [Asteroids, Space invaders, Pacman, Super Mario]. This classification later augmented by *simulation games* [Balance of Power, Sim City, Civilization]¹⁶. These games, particularly simulation games put the player in the position of 'god', controlling rather than merely reacting to the action.

In India, most of the children are exposed to the virtual world of games. In many cases, games are becoming a main agency of socialization. Console games are very popular among the urban children in India.

The values depicted in these games, sometimes are opposite to the accepted social norms and moral proscriptions and prescriptions in our society. In his Yoga Sastra, Sage Pantanjali advocated five¹⁷ 'YAMAS' to restrain and control immoral behavior and five 'NIYAMAS'

[representing virtues to be cultivated]. These are considered as fundamental social norms in our society. Father of Our Nation, Mahatma Gandhi has followed these norms. But the visuals, storyline, and role play of some of the popular online/offline computer games are diagonally opposite to the basic social norms of our society. The tension between doing right and doing the opposite often blends into blurry boundaries where the two merge and a dialectical dance between 'right' and 'wrong' plays out.

This conflict is revealed in our parent-child relationships.

Some of the issues that need immediate attention

Internet usage at schools and colleges is increasing in India. Many universities are offering online-education. One of the key risks of using the internet, email or chat services is that young people may be exposed to inappropriate material. This may be material that is pornographic, hateful or violent in nature; that encourages activities that are dangerous or illegal; or that is just age-inappropriate or biased.

With the increasing use of the Internet in classrooms, many issues came to the fore which demands attention from parents, children-students, teachers, and administrators.

Allow me to put some of these before the academician and the administrators.

- **Acceptable Use Policies:** How can these policies protect teachers, students, administrators, and parents? What constitutes a good Acceptable Use Policy?

- **Copyright Issues:** How does "Fair Use" affect the use of copyrighted materials in schools and colleges?

- **Censorship Issues:** Is the use of filtering software a violation of students' rights? What other issues regarding the use of the Internet might be affected by censorship?

- **Security/Privacy:** How can schools protect children and their personal information as they use the Internet in the classroom and in school labs?

- **Child Safety:** How should parents and teachers deal with issues such as Cyber bullying or online recruitment of gang members?

- **The Digital Divide:** How can digital divide affect student performance? What are potential consequences to society if this issue is not addressed?

- Gender Issues Regarding Involvement with Technology:

How do boys and girls differ in their use or views regarding technology?

Conclusion:

Cyberspace is seen by many social and behavioral scientists as challenging accepted notions of community and social behavior. Nonetheless, cyberspace offers new ways of understanding personal and collective identity. The need of the hour is to strengthen the research on cyberspace and cyber culture and their impact on the social institutions of the real world.

(Endnotes)

¹ Cyberpunk is best understood as a subgenre of science fiction; it is sometimes seen as a distinctly

'postmodern

' take on sci-fi. writers associated with cyberpunk include Bruce Sterling, Pat Cadigan, Samuel De

laney, Neal Stephenson

– but its best-known author is William Gibson, whose

' *Sprawl Trilogy*

' -

Neuromancer

[1984],

Count Zero

[1986]

and

Mona Lisa Overdrive

[1988]-is widely seen as defining the genre, as well as defining the cyberpunk version of cyberspac

e.

² Cavallaro, D [2000]

Cyberpunk And Cyber Culture: Science Fiction And The Work Of William Gibson

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³ There are 81,000,000 Internet users as of November 2008

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