

Impact of Internet on Citizen's Perception: A Case Study on the Andhra Experience

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Abstract

The study has tried to analyze through an exploratory case study on Andhra Pradesh a state in India, the principal question, can use of Internet, influence citizen attitudes toward government. The scientific research is based on five focus group interviews with 10 knowledgeable members in each who had voted in the 2004 elections in which the incumbent government that had tremendous interest in bringing and using Internet as a medium lost heavily. The interviews focused on the perceptions of development of IT facilities and IT industry in the state, economic development under Chandrababu Naidu the Chief Minister of the state, whether the electorate derived benefits because of the introduction of Internet based services, did this new technology bring in opportunities for employment to gauge whether over emphasis on Internet had an impact on the way the electorate voted, and a summary for the reasons of the democratic defeat of the government. The study concludes that in spite of all the utilities that the e-governance projects in Andhra Pradesh provided as well as the various popular projects that the government undertook; the focus on Internet technology had a very negative impact on the fate of the ruling party. The people were not comfortable using the medium. The reach was not adequate and the infrastructure requirements were also beyond the common man's means. Most of the electorate could not find any direct benefit and felt that the huge spending on the infrastructure was a huge waste and the government had neglected the cause of the common man in its pursuit of bringing in Internet. Further while e-governance improved perceptions of government processes it did little to improve trust. The study has indicated that the relationship between technology and government is very complex that may have several unintended and unpredicted consequences and confusing outcomes in India

Key words: e-Governance, Internet, Andhra Pradesh, Technology, Government, Trust

Introduction

Can use of Internet affect citizen's perception towards a government? Can it improve the level of public trust and confidence in a government? There is a concern amongst scholars like Norris 'that the public has lost faith in the performance of the core institutions of representative government' (Norris, 2001, P113). E-governance which has been proposed as a solution is the application of electronic means in the interaction between government and citizens and government and businesses and internal government operations to simplify and improve democratic, government and business aspects (Backus, 2001) of governance. The strategic

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objective of e-governance is to support and simplify governance of all parties: government, citizens and businesses.

E-governance involves new styles of leadership, new ways of listening to citizens, new ways of educating the public and the service providers and new ways of delivering information and services. It is expected to improve delivery of many types of public services, including transactions and also as a means of dissemination of information about the government (Thomas and Streib 2003).

The common expectation in scientific and public opinion is that intervention through Internet technology will change power relations in many, if not all domains in society. While some think that centralization will occur, most think decentralization will take place. The most popular expectation is that it will empower users of all kinds: citizens, consumers, workers, patients, students and audiences. It is also perceived that those in power reach more power in their control of design, investment and implementation of this technology. Will using Internet technology help in reversing the decline in public trust in government? It is necessary to examine these perceptions and also try and understand how it changes the relations between governments and citizens. An early study of e-governance quoted by Norris (2011, P114) conducted by the Organization for Economic Co-operation and Development in eight developed nations of the world concluded that the 'overall impact of Internet had failed to increase access to policy makers, to improve the transparency of government decision making or to facilitate public participation in policy making'.

Democracy, Citizens and Technology

A democracy is a creative, beneficial, powerful force that encourages participation, citizenship and political activity in a public environment. In India we follow the Parliamentary or Westminster model known as a popular democracy as people have the ultimate powers and all powers are drawn from the people. A problem that plagues a modern democracy is that large numbers of the educated population do not participate in the political and civic life; further some people also feel dis-empowered. However, there is an unpredictability of outcome of using modern technology to achieve these political ideals (Sawyer & Eschenfelder, 2002). Studies have been conducted to see the contribution of information and knowledge in solving social problems (Kling & Callahan, 2003) and the relationship between democracy, social justice and equity with information access and use (Kochen, 1983). Technology however can be employed by governments to help citizens in many ways.

Doctor's (1992, P80) broader overview of the role of information technology in social equity demonstrates that, "existing data provide warning signals about significant disparities in the distribution and use of information resources". It also needs to be noted that there are other

issues with the use of this technology- costs, investments, access, skill, education. So even though a section of the community will be greatly advantaged when a government starts using this technology, there will be a significant number who will not be impacted at all. Therefore, because of these differences the advantages are not always visible, integrated (Carveth&Metz,1996) or equally accessible by all in similar settings.

When Internet technology is used in governance, there can be two major predictions in the outcome - highly optimistic or technological utopianism or highly pessimistic or technological dystopianism (Dijk, 2000), both these views are significant in creating citizens views and perceptions. Such use of technology is also affected by society and its institutions (Bellamy & Taylor, 1998). This view places technology in a lower rank in comparison to culture, society and political processes. The nature and even existence of technology and its range of usage is determined by the social, political and cultural factors prevalent in a society (Mackenzie & Wajcman, 1999). These days' governments are trying to connect with the electorate by becoming more service oriented. These are also exercises in rebuilding trust, bringing in transparency and trying to get more people involved in the government processes (Bellamy and Taylor, 1998).

Internet is able to deliver information far easily and at relatively lower costs Thus it can be used a tool to implement public policy (Kettl,2000) . Different government circulars, orders etc can be uploaded on websites for easy access by citizens. This will also create greater awareness amongst people. However, governmental services also influence power structures (La Porte, Demchak and De Jong, 2002).Implementation of e-governance is not an easy task and is not about the technology alone. There will be many powerful people with vested interests who will feel threatened by this technology and will try to stall the implementation; because if governments implement this technology then the governance will become far more transparent which may be detrimental to their interests.

It is seen that the impact of the Internet is, ironically, disproportionately greater than its overall spread. This fits within the general argument that the libertarian culture accorded by ICTs shift the balance of power between states and citizens, especially in developing countries (Ott, 1998) .Again this medium can also serve as a medium of public participation (Zhang, 2002)but citizens should be motivated to judge the information from alternative points of views(Becker, 2001). By using this medium governments can deliver services as well as information and engage in one-way or two-way communication with its citizens. This will lead to their empowerment (Klein, 1999). However, there is a view that Internet technology has an amplifying tendency that tends to make politically active people more active and the politically inactive even more detached (La Porte, Demchak and De Jong, 2002). Thus use of such technology may add to the existing economic, social and political disparities in a society, as

traditional groups do not adopt such technology in political arenas so easily. Using technology on a greater scale will be possible when the required infrastructure can be made available. The level of three types of access to this technology in the domain under consideration: first, physical access to computers, the Internet and other digital media; secondly, digital skills and finally, use, that is the quantity and quality or kinds of applications also need to be known as that may interfere with the perception of the technology itself.

Governments cannot insist on accepting only online applications if the facility of forwarding online application is not available uniformly across the country. Therefore in countries like India, where great disparities exist amongst people in terms of economic factors, education, area of residence etc, using technology to serve people remains a big challenge for governments. India is plagued by poor infrastructure, high rural population, problems of electricity and water, illiteracy, lack of IT training and language barriers (Dasgupta, 2006) which are possible reasons for the poor implementation of e-governance projects. People rely more on hand written documents and are not satisfied with computerized copies. Further, our existing systems are not adequate. Good systems require good manpower, appropriate technologies and efficient processes. IT and Internet are only enablers. It is important to reengineer processes and systems before computerization. E-governance cannot transform a country immediately or forever. It is a process, most often a struggle that presents costs and risks-both financial and political. Achieving success requires a change management process to create awareness, understanding, trust, common reason and willingness from all quarters to move it from an idea to reality. The challenges are enormous and ironically more cultural than technical.

Background

Andhra Pradesh is the fourth largest state of India situated on the south east coast; it is also one of the less developed states of India. The population of the state according to the 2001 census is 76.2 million with a literacy rate of 52.4 % that had shown a good rise from the past decade. Almost 73% of the people of Andhra Pradesh work in the agricultural sector as farmers and agricultural labourers. It has historically been described as the 'Rice bowl of India'. Andhra Pradesh, in the early 1990's saw the rise of a new and prolific political leader from the Telegu Desam party –Nara Chandrababu Naidu .He became the Chief Minister of the state in September 1995 by overthrowing N.T Rama Rao from the same party who was his father-in-law and brought in with him a lot of liberalization in reforms that changed the track of development in the state. Chandrababu Naidu during his nine-year rule had introduced several market-based reforms as also many time tested populist schemes, which no other Chief Minister of Andhra Pradesh had ever launched. Information technology and information technology based service sectors boomed during his tenure, giving rise to a separate state level

IT policy. Mr. Naidu was a member of the first National task force on Information Technology and software development in May 1998 .He focused very heavily in building the IT infrastructure of the state and competed strongly with Bangalore and Karnataka to be the Silicon valley of India. He was successful in converting Hyderabad into a Hi-tech city. He was also instrumental in making use of the Internet for governance or e-governance. However, in the 2004 national and state polls the TDP under the leadership of Chandrababu Naidu faced a devastating defeat unparalleled in the history of Andhra Pradesh. . Chandrababu Naidu's over emphasis on IT and ITES was cast as the main reason for this defeat as the rural community felt neglected despite all his development and e-governance projects.

Trust in a Government

In a democratic country like ours, the trust that a government or a political party can earn from its citizens is reflected at the time of voting. Trust in a government, according to Miller and Listhaug (1990,P 358) is the evaluation of 'whether or not political authorities and institutions are performing in accordance with normative expectations held by the public'. Changes in 'political trust reflect more than incumbent-specific satisfactions or dissatisfactions' according to research by Levi and Stoker (2000, P483). The reasons why people experience a decrease in the confidence in government is varied that may include perceptions of performance of government programs (Orren, 1997) economic change (Bok, 1997) party polarization (King, 1997) to name a few. Yet the impact of Internet and its technology on the trust in government and thus the fate of a political party are necessary to study.

Research Question

Very few studies could be found that focused on this aspect. The present researcher wishes to fill in some of the gap in knowledge regarding the political outcome rather than the technological outcome of use of such technology in politics by answering the following question: What is the evidence that use of Internet, influenced citizen attitudes toward government?

Study Design

To examine the evidence that use of Internet, influenced citizen attitudes toward government the researcher turned to an exploratory case study based on focus group interviews.

Methodology

The research focused on whether an over emphasis on Internet had an impact on the way the electorate voted. The expert focus groups comprised of journalists, renowned academicians, software professionals, government officials and other residents from different parts of

Andhra Pradesh who had voted in the 2004 state polls. The role of the researcher was that of a moderator, to make the discussion one-dimensional. The group discussions continued for nearly an hour each and a consensus building approach had been taken to identify relevant dimensions in questions. Five such focus groups were formed comprising of ten individuals in each interview. In all 50 people were interviewed.

No incentive or remuneration was paid to the participants. However, the participants agreed to the discussion based on an informal agreement to keep their identities undisclosed. The interviews were held in Hyderabad and Vizag between 16th August and 31st December 2008.

Results of the Focus Group Interviews

The groups concurred that Nara Chandrababu Naidu brought with him a lot of hope and expectation to the citizens when he became the Chief Minister by declaring Andhra Pradesh a company, the citizens its stakeholders and himself the CEO or Chief Executive officer of the same. This was in marked contrast to the populist attitude of past politicians specially the likes of N T Rama Rao. The new Chief minister soon hiked the power tariff, water tariff, transport charges, land registration charges and also raised the price of rice under the subsidy scheme from Rs 2 per kilo up to Rs 6 per kilo. He privatized several public sector undertakings during his tenure rendering over 10 lakh people jobless. Chandrababu Naidu however, had introduced several populist schemes as well, like the Janmabhoomiprogram in 1997, the Chief Minister's Empowerment of Youth program in 1996; the Adharana program in 1998; the Girl Child Labour Rehabilitation program; the Back to School program in 1997, the Deepam scheme in 1999; the Mundadugu program and the Roshni project. Then there were the Self Help Group created by the state government covering rural poor women for ensuring their financial security. The Neeru Meeruprogram was launched in April 2000 with the objective of sustainable utilization of water. Priority was given to villages and mandals with water scarcity. The Clean & Green A.P Campaign was started in 1998 with the objective of making every habitation and Municipal ward clean and green. The Apatha Bandhuprogram was started to give compensation to families of accident victims.

Economic Development Under Chandra Babu Naidu

During the nine-year tenure of the Naidu government, the farmers were hard hit due to lack of power supply in the villages, drought and faulty policies of the past governments as revealed in the discussion. The groups felt that Naidu did not concentrate much on rural development, especially in the agriculture sector on which more than 60% of the population was dependent. According to the experts, 70% of the population then resided in the rural areas where there was no proper infrastructure, no water facilities and drainage facilities. Farmers suffered from water shortage, poor power supply, ineffective power reforms, lack of strategy for marketing

their products, non-availability of cheaper loans and dependence on power for irrigation. All this led to complete loss of trust in the TDP government by the rural population, which had been the backbone of support for the party in the past.

The groups mentioned statistics and stated that the economics of the state were not good and kept fluctuating. Naidu had from the beginning, wanted to develop the state under different plans and schemes but the state was already facing a monetary crunch. By supporting the BJP led, National Democratic Alliance (NDA) government in the center from outside he was able to mobilize lots of connections for funding in the state and also divert some money into the state from the centre. He was also able to forge ties with the World Bank and the British led DFID. Further, he appointed the global consultant McKinsey to devise and design the road map of future reforms applicable for the state. Based on their joint reports, the World Bank agreed to fund the state and a vision document was created. Very soon the Implementation Secretariat or IS was also created which would function above the state assembly and act as the principal consultant to the state. The Naidu government created the 'Vision –2020: Swarna Andhra Pradesh' document. The main focus of this document was on Information technology (IT) and Information Technology and Enabled services (ITES), biotechnology and other knowledge based services. It is clear, because of these developments the expert groups opined, that the focus had clearly shifted out from the rural and agrarian policies of the past.

Contributions of the Naidu Government Towards Development of IT Facilities and IT Industry in the State

All the members of the groups felt that Chandrababu Naidu was known for his strong affinity towards Information Technology. He initiated several e-governance projects during his tenure as he felt that Information Technology was a tool that opened up tremendous opportunities for providing basic government services to a much broader segment of the population at the optimal quality, time, place and cost and thus the government should leverage its strength in IT to open up these services to all its citizens. Andhra Pradesh emerged as one of the leading states in India in e-government applications, with the State government implementing a comprehensive plan for the same. In 1998, the state government along with a consortium of public sector IT companies from Singapore set up the APVAN or Andhra Pradesh Value Added Network to focus on revenue, commercial taxes, transaction charges, registrations and managing and maintaining the related data.

The APSWAN or Andhra Pradesh State Wide Area Network was created to facilitate e-governance and connected the secretariat to 23 district head quarters, Tirupati and Vijayawada. This would help the government to have live interactions with the collectorates and other essential village officials and officers across the state, ensuring regular and daily monitoring,

during crisis and in emergency situations. These groups felt that this was a foray of the administration into e-governance. The CARD project (Computer-aided Administration of Registration Department) was a comprehensive project of computerizing "The Registration & Stamps Department". E-Seva started off as a pilot project in 1999 in the twin cities of Hyderabad and Secunderabad and was called TWINS or Twin cities Integrated Network Systems. Through the TWIN project, 19 basic services were made available at a single point service station that included payment of bills, issue of different application forms, vehicles and learner's driving licenses, submission of passport forms, payment of property tax, certain examination fees, registration of birth, death, etc. The TWIN project gained plenty of popularity and support across the state from all sections in the society. The groups concurred that this project too showed an initial urban bias-for the place of start as well as the nature of initial services like driver's licenses or submission of passport forms.

The FAST (Fully Automated System for Transport) project also Internet based was well accepted too as it deals with issue and renewal of driving licenses, payment of license fees, registration of vehicles, transfer of ownership and allied documentation. Its popularity was based on the ease and speed. The experts commented that this popular project was also available in mostly urban areas, even though Internet based data can be made available anywhere. The AP online was a web portal developed to provide all basic information about the state. The website <http://www.aponline.gov.in/> provided a link to several services like exam results, tourism etc information related to the state.

The SAPNET or Society for Andhra Pradesh Network project was also initiated, which was a major communication and infrastructure initiative of the department of IT and Communication. It was essentially an education-oriented service and was also meant to be a resource for E-governance, rural and agriculture development and telemedicine. Another initiative in creating a socio-economic database of all residents and a database of all land records was done through a multi –purpose household survey that covered over a thousand mandals in several districts of the state. This reached e-governance facilities to the grass root level and in a matter of very short time issue –caste, birth and nativity certificates. Apart from these projects, Naidu concentrated on developing the state in IT and allied areas. About 23% of the total software professionals in the United States are from Andhra Pradesh and it has a strong number of skilled manpower in the area of IT. The state ranked 3rd in India in terms of software exports in the year 2003. Established in 1992, STPI-H (Software Technology Park-Hyderabad) grew in export and numbers.

Chandrababu Naidu had also focused on developing both the Cyber city and the Hi Tech city. The Cyber City was meant for companies who wanted to invest in the state; they were provided land and necessary infrastructure. Chandrababu Naidu was able to bring software giants like

Microsoft, Oracle and GE to the state and they all invested very heavily.

Problems with the Strategy

The groups concurred that the number of STP units in Andhra Pradesh grew very sporadically and the focus was mainly on big cities like Hyderabad and Vizag. Hyderabad had 820 units while places like Tirupati and Warangal had only 3 and 2 units respectively. A great disparity in uniform growth in the IT industry was created. This was ascribed by the members as one of the reasons why IT failed to contribute to the rural sector in Andhra Pradesh. The CM had justified his stand of showcasing Hyderabad by stating it was necessary to attract foreign investments and felt that it would create ripple effects in the neighboring areas and debated that he had also spent a lot of money in the villages on health, education, power, irrigation and infrastructure; but the plight of the poor has been so bad and with drought adding to their misery it was not possible to bring immediate relief and hence people felt he had not done enough.

Another observation of the groups was that, in spite of the rise of the IT and ITES sector in the state, it failed to generate adequate employment to its citizens. Moreover, the employments created were based on a basic education and knowledge of computers and software applications. Language was a major problem. This growth could therefore not offer much to the rural population in a state that had a high rural population and low literacy. For the urban youth as well, these investments by large multi-national companies did not bear direct benefits in terms of very high employment-less than a lakh jobs were only created and most of these were for technical and support staff.

Chandrababu Naidu had contributed to education by setting up the IIIT (Indian Institute of Information Technology), Nalsar-Law University, Indian School of Business and many more large educational institutes of higher learning. These were expensive institutions and attracted students mostly from wealthier states. The local community could not directly benefit much.

Findings

It would be worthwhile to analyze the Andhra experience of using the Internet for socio-economic development, improved governance, and generation of employment and as a change agent in the various government organizations. In a state, where more than 73% of the population resides in rural areas, 50% are dependent on agriculture the sole focus on growth of the IT and ITES sectors at the cost of primary sectors like industry, agriculture and allied sectors proved to be very dear for Chandrababu Naidu. Most of the electorate viewed this expenditure as wasteful expenditure of public money. His e-governance initiatives, though praise worthy have also been termed by many as a political gimmick. E-governance initiatives should normally affect citizen's attitudes about the transparency and effectiveness of

government positively, but here the result was on the contrary. This could be attributed to the fact that the reach and accessibility was extremely inadequate amongst the population.

When such massive projects with such large number of stakeholders are to be handled, then a lot of political will and leadership is required. The Andhra government had both and yet failed to return to power. Of the many reasons ascribed to the failure was that all the development projects using technology were centered on the Chief Minister. This contradicts the concept of a democracy where the public is only expected to follow. This can be a serious setback for a politician. This observation agrees with previous research (Schudson, 1992).

Further, many employees found themselves lacking in skills to adapt to these changes with IT as the driving force. Therefore the responsiveness of government websites was also inadequate to change the perception of a citizen favorably. The public was also not so well acquainted with the new medium and never realized the potential and the convenience of the Internet. Another reason for this could be that it was a concept still ahead of its times in an economy like India. Most of the e-governance projects succeeded in the urban areas, as people were better educated and had better access to the technology. This seems to have changed the perception of Internet as being elitist and created a further divide in the society between the users and non-users of the Internet.

While the Government had taken up a number of key initiatives for promoting the pervasive use for IT in the state, it is significant to note that technology appeared to be relatively less of a critical issue in these processes of change. Rather than introducing and using technology, it is the administration of the entire change management exercise that seems more critical in such cases. Successes of projects of this nature and magnitude also depend on how well the government has been able to sell to the public and how well the public has bought it. Even though the CM used the platform of weekly live television program-'Dial your CM' to emphasize the importance and relevance of IT for development, it still did not meet the desired level of public confidence.

The new policies observed that several staff could be reduced and also relocated ;upto as high as 80%. These suggestions naturally never go down well with employee associations, more so in a poor country like India. These also result in projects not delivering the required outcomes due to resistance, sabotage and fear. Further, when at the various stages of a project; the stakeholders are not involved in the planning, designing, implementation and maintenance of systems, they do not feel involved or develop a sense of ownership for the project and feel it's only an imposition on them leading to resistance and apathy. These lead to incomplete projects, which are then, viewed as wasteful expenditure. When stakeholders were involved in the CARD project, it became a success since both the customers and employees realized the

convenience. Moreover most of the e-governance projects take a while to produce results that too confused people.

From the discussions it appears that though e-governance improved perceptions of government processes it did little to improve trust.

Conclusion

Digital government has attracted attention as a method of improving citizen interactions with government and a possible remedy to citizen apathy and distrust. However, in the end, the study has indicated that the relationship between technology and government is very complex that may have several unintended and unpredicted consequences as well as confusing outcomes in India. The study has confirmed that in a democracy it is necessary to involve people in the processes required to bring about such revolutionary changes in administration. Further, in a country like India, with low levels of literacy, huge urban-rural divide in terms of infrastructure, facilities and development and a large rural population where the basic means of survival are not available to a large section of the population, investments in technology are viewed as wasteful and indulgent. It is necessary to be able to explain the gain to the various stakeholders successfully, educate them and involve them rather than impose it on them. Introducing new technology is more about managing change successfully than the technology itself and can have very serious implications for the administration.

The introduction of Internet technology for governance purpose in Andhra Pradesh was not only a complex and co-evolutionary process along with social changes but also with unintended and unpredicted consequences and ambiguous outcomes which may have endangered future socio-institutional and political changes. Such outcomes have also been reported in the past (Manchester, 1998). It may be concluded in agreement with the observations of Richard Sclove (1995) that the development of any new technology has broader social implications than those to which it was supposedly intended and these externalities are often overlooked. Sclove (ibid. P20) emphasizes that "all technologies are associated with manifold latent social effects and meanings, and that it is largely in virtue of these that technologies come to function as social structures".

References

- Backus, M., (2001). E-governance in developing countries. *International Institute for Communication and Development Research report*, 1-4.
- Becker, T., (2001). Rating the impact of new technology on democracy. *Communication of the ACM*, 44(1), 39-43.

- Bellamy, C., & Taylor, J.A.,(1998). *Governing in the Information Age*, Buckingham, UK, Open University Press.
- Bok, D.,(1997). "Measuring the Performance of Government", in Why people don't trust government, (Eds) J.S.Nye Jr., Phillip D.Zelikow, and David C. King, 55-76. Cambridge MA:Harvard University Press.
- Bryan, C., Manchester (1998). *Democratic Implications of an Economic Initiative*. In R. Tsagarousianou, D. Tambini, & C. Bryan (Eds.), *Cyber democracy: Technology, cities and civic networks* (152-166), London: Routledge.
- Carveth, R., & Metz, J., (1996). Frederick Jackson Turner and the democratization of the electronic frontier, *American Sociologist*, 27 (1), 72-100.
- Dasgupta, D., (2006). E-governance in India. *Global CEO*, November, 26-28.
- Dijk, J.V.,(2000). *Widening Information Gaps and Policies of Prevention*. In K. Hacker & J. van Dijk (Eds.) *Digital Democracy, Issues of theory and practice*, (166-183), London, Thousand Oaks, New Delhi: Sage Publications.
- Doctor, R. D., (1992). Social equity and information technologies: Moving toward information democracy, *Annual Review of Information Science and Technology*, 27, 43-96.
- Kettl, D.F.,(2000). Public Administration at the Millennium: The State of the Field. *Journal of Public Administration Research and Theory*, 10(1), 7-34.
- King, David.C.(1997). The polarization of American parties and mistrust in Government. In Why people don't trust government, (Eds) J.S.Nye Jr., Phillip D. Zelikow, and David C. King, 155-178. Cambridge, MA:Harvard University Press.
- Klein, Hans,(1999), Tocqueville in Cyberspace: Using the Internet for Citizen Associations. *The Information Society*, 15,1-4.
- Kling, R., & Callahan, E., (2003). Electronic Journals, the Internet, and Scholarly Communication. *Annual Review of Information Science and Technology*, 37, 127-177.
- Kochen, M.,(1983).Information and society. *Annual Review of Information Science and Technology*, 18, 277-304.
- La porte, T.M., Demchak, C.C., & De Jong, M., (2002). Democracy and bureaucracy in the age of the web: Empirical findings and theoretical speculations. *Administration and Society*, 34(4), 411-446.

- Mackenzie, D., & Wajcman, J., (Eds), (1999). *The Social Shaping of Technology* (2nd edn), Buckingham, UK, *Open University press*.
- Margaret, L., & Stoker. (2000). Political trust and trustworthiness. *Annual review of political science*, 3, 475-507.
- Miller, A.H., & Listhaug, O., (1990). Political parties and confidence in government: a comparison of Norway, Sweden and United States. *British journal of Political Science*, 20(3), 357-86.
- Norris, P. (2001). *Digital divide: Civic engagement, Information poverty, and the Internet Worldwide*. New York: *Cambridge University Press*
- Orren, G., (1997). Fall from grace: The public's loss of faith in Government .In *Why people don't trust government*, (Eds) J.S.Nye Jr., Phillip D. Zelikow, and David C. King, 77-108. Cambridge, MA: *Harvard University Press*.
- Ott, D., (1998). Power to the people: The role of electronic media in promoting democracy in Africa, *First Monday*, 3(4). Retrieved (2008) from http://www.firstmonday.dk/issues/issue3_4/ott/index.html.
- Sawyer, S., & Eschenfelder, K. R., (2002). Social informatics: Perspectives, examples, and trends, *Annual Review of Information Science and Technology*, 36, 427-467.
- Schudson, M., (1992). The limits of Tele democracy. *The American Prospect*, 41-45.
- Sclove, R., (1995). *Democracy and Technology*, Guilford Press, London.
- Special website on National task force on IT and Software development. Available at <http://it-taskforce.nic.in/> accessed on (2008)
- Thomas, J.C., and Streib, G., (2003). The New face of Government : Citizen- initiated contacts in the era of E-government. *Journal of public administration research and theory*, 13(1), 83-102.
- Zhang, J., (2002). Will the government serve the people? The development of Chinese e-government. *New Media & Society*, 4(2), 163-184.