

Technology, Surveillance and Power: Changing Dimension of Control and Regulation in Information Age

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Present day surveillance system has emerged as a new dimension of power and control relationships. Every sphere of our social life is directly and indirectly associated with surveillance mechanism. Surveillance has become part of our culture and consciousness. Surveillance in the Information Age has created tremendous enabling capability to co-ordinate, observe and control everything of our life, we are more visible to state and market never before. In this context the paper argues how power relations are maintained, celebrated and executed through surveillance system not only in the global level but also local. Paper also argues Surveillance is an omnipresent phenomenon in contemporary social order. It also argues how storage and control of information has become economically, politically and culturally significant. Furthermore this paper argues how human species are within the vortex of a culture of surveillance.

[Key Words: *Technology, Surveillance, Power, Information Age, Privacy]*

Introduction:

The emergence of information communication technology as a new paradigm has brought about massive structural transformation in every sphere of our social life. Frank Webster would argue that ‘information society’ lays emphasis upon spectacular technological innovation. The fundamental idea is that breakthroughs in information processing, storage and transmission have led to the application of information technologies (IT) in virtually all corners of society (Webster, 1995). Each and every sphere of our social life are directly and indirectly associated with informatics. In this context, one can argue that technological surveillance system, which is part of an information society, has emerged as a new dimension of power and control relationship. Technology, knowledge and power are integrated in a single line resulting into convergence and fortify the surveillance system. Surveillance is an omnipresent phenomenon in contemporary Information Age, though it is not at all a new happening but the way, in which the technology integrated, it has become a powerful tool to repress and subjugate. One can further debate about the empowering potential of surveillance system that controls whom? The surveillance power signifies two

ways, firstly that the human species is in danger and secondly the species is dangerous for others.

Technology in the Information age has created tremendous enabling capability to co-ordinate, observe and control everything of our life, we are more visible to state and market never before. In fact, we are living in a phase where computation, control and information productive power are an important component of our everyday life activities. Since 1970 onwards that Informatics particularly information productive power is a major social force in contemporary social order. It is all about increasing in knowledge frontiers, networks, databanks, information and knowledge space and emergence of virtual communities. Future shock and invasion of privacy are the dominant component of our contemporaneity. One can further argue computer and their associated communication systems now mediate all kinds of relationships. In the Information Age the convergence of technologies and communication system, is degitalizing everything. Travel, shopping, work and leisure activities are all implicated, on occasions, in this growth of socio-techno-legal systems. Surveillance, individual privacy, digital right, political surveillance and consumer surveillance are critical debates in communication technology studies. This debate has taken a new twist after 9/11. Across the globe, Europe and the United States, these demands have been implicated in, amongst other things, increasing numbers of security cameras, a proliferation of forms of bio- metric identifiers, enhanced border crossing security, more frequent and detailed use of a variety of profiling and categorizing techniques and a growth in automated scanning systems, which emphasises more on control and scrutiny and regulation. Most of our spaces and places are controlled and monitored by CCTV cameras. The massification of surveillance technology has raised many questions? Nowadays everybody wants a Camera which will document and monitor everything. Now-a-days a very popular CCTV advertisement that says '*Uparwala Sabdekhta he*', this particular advertisement symbolize and signifies many things. In a commonsensical way one can only perceive is an advertisement of a particular product of CP Plus company which is marakatable product, the urban center and urban citizen wants CCTV camera on their wall, if we see through a sociological lens it takes me to a different level, maybe one can read it through Bentham, Marx, Foucault and David Lyon. One can also visualize how diffent technologies hybridize with each other and create a new knowledge system for control and regulate every thing. One can examine how state and market are watching everything, every moment in every sphere through new hybridize technology. My honest engagement would be to explore the very essence and appearance of surveillance in the Information Age. One can argue on how the information technology and networks including surveillance technologies are the new defining factor of our social relationships. Futher more to study how human species are within the vortex of a culture of surveillance.

Understanding Surveillance: Text and Context

Though, we are visualizing massive expansion of the surveillance system everywhere around us but it is not a new phenomenon. Historically surveillance system can be seen as means of social control in each and every societies whether Nomad, Pastoral, Tribal, Agrarian, Industrial, Modern and Information Society in different forms. Nevertheless, in modern techno-centric societies it has taken a new shape. According to James Rule surveillance as an embedded aspect of relations between states and population. Surveillance entails a means of knowing when the rules are being obeyed, when they are broken and most importantly who is responsible for which (Rule, 1973). Surveillance is about watching over or carefully watching a person and documenting processing information of any kind. In fifteenth century, religious surveillance was a powerful and dominant form in Europe and other parts of the world. C.A Bayly argues in his seminal work '*Empire and Information : Intelligence Gathering and Social Communication in India 1780-1870*', about Surveillance mechanism and communication system in Modern India, he argues that without good political and military intelligence the British could never have established their rule in India or consolidated the dominant international position of the United Kingdom. During the years of conquest, British knowledge of the country was drawn largely from Indian sources and supplied by Indian Agents (Bayly, 1996). He furthermore argues political surveillance has been vital for all large historical states but it was particularly important to Indian rulers because of certain invariant features of the subcontinent's ecology and society (Bayly, 1996). Karl Marx was critical about surveillance system he argues on the apparatus of surveillance in between labour and capital particularly, watching over workers and maintaining managerial control over the labour force on behalf of capital is purely surveillance system in modern capitalist society. Max Weber furthermore points out the way in which modern organizations develop a means of sorting and retrieving data (personal) in the form of a file in a bureaucratic system. This is nothing but a surveillance system. This system of organization will keep tabs on population and maintain the record of an individual. Frederick Taylor's scientific management' apparently induced a mechanical discipline into the labour force is predominant form of surveillance and control. Owing to growth of nation-state, which has needs and capacity to gather and use information particularly through surveillance purposes because the state wants to exert power and control over citizen. In the age of networks and convergences our culture, economy, polity and power structure are associated with surveillance. Power relations are maintained, celebrated and executed through cyber surveillance system not only in the global level but also local. Due to massive utilization of information and communication capabilities now the Netizen (Net-Citizen) is under the surveillance mechanism. The controlling, policing everybody has become part of global politics. One can argue that we are living in a phase of Mass Surveillance system. Bauman would argue, once sociology could confidently

assume that social relations were in some ways isomorphic with territories – and of course, ironically, this assumption is precisely what lies behind the geo-demographic clustering activities of database marketers. However, the development of different kinds of networking relationships challenges this simple assumption. Social relationships have become more fluid, more liquid (Bauman, 2000) and surveillance data, correspondingly, are more networked, and must be seen in terms of flows (Urry, 2000). It is not merely where people are when they use cell phones, e-mail, or surf the Internet. It is with whom they are connected and how that interaction may be logged, monitored, or traced that also counts (Lyon 2003). Now even the business model is more depending on collection of data bank. Individual, community, group data have its own price tag. Market economy around the world is more vigilant about to understand consumer behaviour in online activities.

Surveillance Technology in Information Age: Panopticon Power and Beyond

George Orwells novel *Nineteen Eighty Four* published in 1949 is the archetypical expression of growth of Surveillance and fear about consequent loss of liberties and entities by nation-state in hand of Big Brother. This novel is an important document, which supplies nourishment to surveillance studies. James Rule's word from the last past of twentieth century onwards it became clear that new technologies would be implicated decisively in Surveillance processes, as computer based system augmented older paper files and face to face modes (Rule, 1973). Jeremy Bentham's ideas of 'Panopticon' all seeing place organized system for managing large population within in physical enclose structure particularly prison, factory and school. Michel Foucault was inspired by Bentham's idea of Panoptic on and considered Panoptic on to be a significant event in the history of the human mind. After Bentham Foucault's celebrated work *Discipline and Punish: The Birth of Prison* (1979) stimulated new approach to Surveillance study. In this context he argues that knowledge gives birth to technologies that exert power. His idea of genealogy of power is concerned with relationship between knowledge and power within human sciences and their practice concern with regulation of bodies and formation of self. Foucault argues the major effect of Panopticon to induce in the inmate a state of conscious and permanent visibility that assures the automatic functioning of power. So to arrange things that the surveillance is permanent in its effects, even if it is discontinuous in its action; that the perfection of power should tend to render its actual exercise unnecessary; that this architectural apparatus should be a machine for creating and sustaining a power relation independent of the person who exercises it; in short, that the inmates should be caught up in a power situation of which they themselves are the bearers (Foucault, 1979). According to Foucault Panopticon is a structure that gives official the possibility of complete observation of criminals. The panopticon is a tremendous source of power for prison official; it gives them the possibility of total surveillance. Mass surveillance system is the extension of panotican idea.

Oscar Gandy, who makes extensive use of the Panopticon model in his work on modern surveillance systems, suggests several other ways that new technologies extend its reach within a government context. We find that the Panopticon has also been rediscovered in capitalism. The debate over whether or not the adoption of new technologies represents intensified workplace control within capitalism is complex and inconclusive. Work and surveillance is another debatable issue in our discipline, the sociological treatment of technology and the workplace, and noted that resolution of the work place technology debate escapes the simple yes or no answer. Questions such as: “Does technology determine power relations in the workplace? Does it reinforce existing ones? Or does it diffuse them?” are not particularly helpful. It is not surprising that the most informed answer is couched in the language of contingency theory, i.e. “it depends on the context, type of industry, managerial culture, etc.” Expressed in terms of Kranzberg’s “First Law” governing the relationship between technology and society, “Technology is neither good nor bad, nor is it neutral” (Castells 1996). Translated to the workplace, and regardless of how the debate over technology and society is framed, surveillance remains an essential component of the relations of production in capitalist society (Giddens, 1985).

Shoshana Zuboff’s (1984) ethnography, *In The Age Of The Smart Machine: The Future of Work and Power*, takes the view that computers in the workplace have a transformative capacity. Paralleling authority as the 'spiritual basis of power', she examines technique as the 'material basis of power'. The key to contemporary management technique, she argues, is panopticism, enabled by the use of new technologies. (Zuboff, 1984 cited in Lyon, 1984).

Mark Poster’s ‘Superpanopticon’ clearly suggests a surveillance situation resembling but transcending Bentham’s prison architecture. David Lyon argues more on Electronic surveillance, which is both socially, shaped and has social impacts, but the nature of the shaping does not necessarily render the impacts predictable in any straightforward sense. Certain capacities of the technological systems themselves make them attractive for use in ways hitherto unimagined. This kind of approach comports well with Gary T. Marx’s studies of what he calls the ‘new surveillance’ (Lyon, 1984). Similarly David Lyon’s idea of ‘Social Sorting’, he argues; everyday surveillance depends increasingly on searchable databases. Even where this is not yet or not fully the case – such as with the predominantly human-operated CCTV systems – a central aim is social sorting. The surveillance system obtains personal and group data in order to classify people and populations according to varying criteria, to determine who should be targeted for special treatment, suspicion, eligibility, inclusion, access, and so on (Lyon, 2002). According to Oscar Gandy’s (1993) studies in consumer surveillance – The Panoptic Sort appeared one of the interesting studies. He shows decisively how personal information is economically valuable and how the consumer playing field is far from level. Data on more and less valued customers help reproduce social inequalities (Gandy, 1993). Data about transactions is used both to target persons for further advertising and

to dismiss consumers who are of little value to companies. Consumer surveillance is another aspect of market economy, surveillance in cyberspace and analyzing consumer's preferences, which is part of new e-commerce marketing activities. Surveillance carefully sifts consumers, clustering them in crude categories to be taught specific skills and educated according to their economic situations. Electronic technologies undoubtedly facilitate a massive augmentation of surveillance capacity in contemporary states.

Apart from surveillance camera other technologies like cell phone can be used for surveillance purposes, which are not constrained by locations. Mobile phone is an important artefact in everyone's life. It is the most essential undetectable machine; it's a technology as well as medium. One can argue Smart Surveillance through Smart phone is a new happening in our social life. Mobile phone is time space and surveillance mechanism. Mobile phones, in conjunction with other technologies such as GPS, may be used to monitor, observe, and trace their users continuously and track people in real time. The Mobile phone/Cell phone enabled with Global Positioning (GPS) its location can be determined and used to track people real time. If surveillance as social sorting is growing, this is not merely because some new devices have become available. Rather, the devices are sought because of the increasing number of perceived and actual risks and the desire more completely to manage populations – whether those populations are citizens, employees, or consumers. (Lyon, 2002). It is not merely *where* people are when they use cell phones, e-mail, or surf the Internet. It is *with whom* they are connected and how that interaction may be logged, monitored, or traced that also counts. According to Zygmunt Bauman, Mobile technologies already show signs of being singularly significant within emerging patterns of “liquid” social life. And further he argues about post-panopticon is a kind of “liquid Surveillance” phase. John Urry argue, that in the twenty-first century it is appropriate mobile phones are as “*inhabited machines*” that “come to life” to inhabit such machine is to be connected with sites across the world, which is an important aspect of globalization, helping to make the world feel like “one place.” One can further argue that through this machine one can simultaneously observe, observe and trace each inhabited machine. “mobile-commerce” that is becoming a dominant site of mobile surveillance, where the most mobile are also likely to be the most surveilled. Information about each and every person is economically, politically and culturally significant for state and market.

Mass Surveillance system in Information Age: Issues and Concern

Recently Edward Snowden revealed shocking information about Mass surveillance system that is a global wake up call for every body. Edward Snowden, a 29-year-old contractor formerly employed by the NSA, CIA, and Booz Allen Hamilton, confessed responsibility for leaking the PRISM documents. PRISM is a tool used by the US National Security Agency (NSA) to collect private electronic data belonging to users of major internet services like Gmail, Facebook, Outlook, and others. It's the latest evolution of the US

government's post-9/11 electronic surveillance efforts, which began under President Bush with the Patriot Act, and expanded to include the Foreign Intelligence Surveillance Act (FISA) enacted in 2006 and 2007. There's a lot we still don't know about how PRISM works, but the basic idea is that it allows the NSA to request data on specific people from major technology companies like Google, Yahoo, Facebook, Microsoft, Apple, and others. The US government insists that it is only allowed to collect data when given permission by the secretive Foreign Intelligence Surveillance Court. Snowden revealed himself on June 9th, three days after reports on PRISM were published; in an interview with *The Guardian*, Snowden said, "I don't want to live in a society that does these sort of things," and claimed he was motivated by civic duty to leak classified information. The surveillance system is visible in everywhere; it's like hydra which tentacles reaching into every sphere of our lives, starting from individual to institutional and to society at large. It is not only in America now in each and every organizations and institution are adopting the surveillance mechanism to control and regulate the human species in contemporary period. India has its own Central Monitoring System is similar to PRISM program of USA; DRDO NETRA is capable of tracking any sort of online communication. The new jewel in the crown is the centralised monitoring system (CMS). Every call made either from a land line or mobile phone can be listened to and its location fixed. All text messages, emails and searches on the internet can be collated and analysed (SAHRDC, 2014). A Project documents relating to the new Centralized Monitoring System (CMS) reveal the government's lethal and all-encompassing surveillance capabilities, which, without the assurance of a matching legal and procedural framework to protect privacy, threaten to be as intrusive as the U.S. government's controversial PRISM project. A detail news published in 'The Hindu' news reveals that the CMS being set up by C-DoT - an obscure government enterprise located on the outskirts of New Delhi - will have the capability to monitor and deliver Intercept Relating Information (IRI) across 900 million mobile (GSM and CDMA) and fixed (PSTN) lines as well as 160 million Internet users, on a 'real time' basis through secure ethernet leased lines. The CMS will have unfettered access to the existing Lawful Interception Systems (LIS), currently installed in the network of every fixed and mobile operator, ISP, and International Long Distance service provider. Mobile and long distance operators, who were required to ensure interception only after they were in receipt of the "authorisation," will no longer be in the picture. With CMS, all authorisations remain secret within government departments. This means that government agencies can access in real time any mobile and fixed line phone conversation, SMS, fax, web-site visit, social media usage, internet search and email, including partially written emails in draft folders, of "targeted numbers." This is because, contrary to the impression that the CMS was replacing the existing surveillance equipment deployed by mobile operators and ISPs, it would actually combine the strength of two — expanding the CMS's forensic

capabilities multiple times. It's all about everything and anything is monitored, visible to state, then controlled and regulated.

New Challenges: Surveillance and Power

Now a new kind of paradigm shift has occurred in terms of collecting, controlling and processing information. In the digital age, we are in a process of digitalizing everything including social, political, economic and cultural activities. It is all about networks and phase of information superhighway and we are hyper connected with Internet technologies. All these occurrences are connected with communication and computer codes as well as Surveillance system. Surveillance is the dominant feature in twenty first century. Owing to new technological development and our communication system now the *Homo sapiens* (human species) under the subject of scrutiny in every sphere of her/his life. Human species has converted to with a numbers whether it is passport, driving license, voter id card, credit card including Adhar card etc. Cyber-legal experts have raise some pertinent question about Adhar Card for instance Usaha Ramanathan argues India's unique identification number project has been sold on the promise that it will make every citizen, the poor in particular, visible to the State. But the UID project raises crucial issues relating to profiling, tracking and surveillance, and it may well facilitate a dramatic change in the relationship between the State and the people. (Ramanathan, 2010)

Now identity of individual body, soul and life all about number and number and number. In this age for human existence and survival is directly linked with number, one should always scrutinize through number. Human identity is converted with digitized numbers, s/he has to live with number and die with number. Human life experience is about computation, control and surveillance. David Lyon would argues, modern surveillance originated in specific institutions such as the army, the corporation, and the government department, it has grown to touch all areas of life. The present day Surveillance is highly specialised and sophisticated in a sense its associated with all sort of new technologies which extract and create personal and group data, utilizing electronic camera, computer matching, profiling, DNA (Deoxyribonucleic acid) analysis, biometric sampling, body scanning and location monitoring etc. All these mechanisms are integrated owing to convergence technologies as well as designed software. Further on account of globalised tendencies the cause and consequences of Surveillance is many fold. The world is more or less interconnected and interdependent due to fluidity, flow of people, image, content and information and also global interdependence and shock waves. Michel Mann argues we live in a global society. It is not a unitary society, nor is it an ideological community or a state, but a single power network. Shock waves reverberate around it, casting down empires, transporting massive quantities of people, material and message and finally threatening the ecosystem and atmosphere of planet (Mann, 1993). The Surveillance is something and has changed everything of human existence. The question, which is hunting us, again and again and again, where are we moving? Are we moving towards

completely and unprecedented of surveillance society or not? We are in fact directly and indirectly under surveillance in the routine of everyday life.

Conclusion

Information communication technology has also made possible greater surveillance capacity within government administration as well as market, which is visible, everywhere. In this Information Age we are in fact visible to state and market as never before, owing to advance technologies and information. Simultaneously speed of flow is increasingly marked within the command-and-control aspects of watch over systems. Computer matching, comparing and scanning of every individual and crating kind of suspicions is an everyday routine in every sphere of our life. In a sense state is viewing every individual is a potential deviant. Where you are” matters increasingly from the point of view of contemporary regimes of governance. Government departments are snooping, prying, and spying on hapless citizens. Surveillance intensifies an invaded our life, electronic technologies facilitate is the deeper penetration of surveillance mechanism. We are in fact living in a period of “cultures of surveillance” which accentuate multiple meanings and manifestation in our everyday lives. Surveillance mechanism is omnipresent; it is the combination of technology, knowledge and power. It is evident that massive intensification of surveillance throughout society, and technological innovation is constantly enhancing its capacity as well as capabilities. New Surveillance technology is almost as a tool of capitalism as well as of repressive states.

For commercial purposes ‘data-surveillance’ is one of the new happening. Computer technologies augment themselves a new kind of power relationships. Cable television networks, for example, can continuously monitor consumer preferences for programming material, along with details of any financial or communicative transactions. We have now innumerable, and increasingly interlinked, networks of bureaucratic and commercial data banks that accumulate and aggregate information on the activities, transactions, needs and desires of individuals or social groups. The individual becomes the object of surveillance has lost the autonomy of subject of communication.

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