CHAPTER – I

1.1 Introduction:
Along with other basic human necessities, information and its communication among individuals and groups has become a necessity. The need and use of internet as a basic tool for our social, economic and educational growth has increased manifolds. Internet and related technologies are playing a very important role in this information age. This high dependency on internet and the way it is managed and governed creates an interest in knowing the underlying methods of controlling and governing this huge universal network.

Acting as a backbone of our globalized world internet is no longer a novelty or a curiosity, its ability to transmit information instantly contributes to an accelerated rate of change. Internet plays an important role as a communications medium, an educational tool, and a business necessity. With due International cooperation and coordination this unique resource can be made accessible to all, irrespective of their location and circumstances. Information and communications technologies have proven as enablers for social involvement and sustainable development. This powerful tool can assist us in our efforts to promote peace, security, and exclusive human rights.

Considering tremendous potential of the Internet to change our lives, people now take an interest in knowing, how it is being run and managed. Internet governance has thus become a new issue on the agenda of international cooperation. Moreover, broadband and mobile global penetration is increasing at an amazing speed, especially in developing countries. With such connectivity now in place, the need for accountable,
fair and transparent policies governing the use of the Internet is a fundamental right of all countries

1.2 The Evolution of Internet:
The project which started as a government funded initiative in US has proliferated worldwide & resulted in information revolution called internet. One of the fascinating aspects of the Internet during its development and early growth was its unique governance. The Internet started as a government project. In the late 1960s, the US government sponsored the development of the Defense Advanced Research Projects Agency (DARPANet), a resilient communication facility designed to survive a nuclear attack. By the 1980s, a wider international community was using the facilities of this network, which by this time was referred to as the Internet. In 1986, the Internet Engineering Task Force (IETF) was established. The IETF managed the further development of the Internet through a cooperative, consensus-based, decision-making process, involving a wide variety of individuals. Also in 1986, ‘the NSF created NSFNET, a network with five supercomputers to help establish effective communication amongst universities.’ There was no central government, no central planning, and no grand design. At this point, life was relatively simple. However, in 1994 the US National Science Foundation decided to involve the private sector by subcontracting the management of the Domain Name System (DNS) to Network Solutions Inc (NSI). This was not well received by the Internet community, and a “DNS War” started.

This “DNS War” brought other players into the picture: the business sector, international organizations, and nation states. It ended in 1998 with the establishment of a new organization, the Internet Company for Assigned Names and Numbers (ICANN). Since 1998 and the establishment of
ICANN, debate on Internet Governance has been characterized by the more intensive involvement of national governments, mainly through the UN framework.

1.3 **Internet Governance definition:**
The working definition which was globally accepted and adopted was presented by ‘The Working Group on Internet Governance’ (WGIG). This group was constituted by the Secretary-General of the United Nations in accordance with the permission given to him by the first phase of the ‘World Summit on the Information Society’ (WSIS), held in year 2003 at Geneva. Considering various aspects and proposals by broader internet community, WGIG finalized the definition as under:

“Internet governance is the development and application by Governments, the private sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programs that shape the evolution and use of the internet”.\(^1\)

Though many other versions, variations, and proposals for defining ‘Internet Governance’ were presented to the ‘Working group on internet governance’ but none was able to cover all the aspects, so we have presented only the accepted definition.

1.4 **Governance Issues:**
Some of the key governance issues requiring in-depth exploration and analysis are as follows.

a) Infra structure and standardization line
b) The logical dimension
c) The content dimension.
d) The social and developmental dimension.
1.5 Governance Challenges:
Global discussions and workshops are being held concerning the following possible challenges.

a) Managing Critical Internet Resources.
b) Access and Diversity.
c) Security, Openness and privacy.

1.6 Literature review:
Internet Governance, being a topic of global interest, wide range of literature is present in the form of books, research papers, research reports, research handbooks, Journals, Magazines, e-Primers, industry advisories, conference proceedings, previous doctoral theses, and case studies. Internet governance is a multi disciplinary field and thus covers vast area of studies. Many research articles, books and case studies on Internet governance and applied aspects have been studied during the present research. The review of literature is presented in following paragraphs.

Philip. M. Napoli\(^2\) in his research paper presented to Fordham University, titled “Issues and challenges facing Internet governance: a report from the 2007 internet Governance forum”, highlighted that IGF is to provide a multi-stakeholder forum for discussion and debate on the wide range of social, political, and economic issues related to Internet governance.

“Internet Governance: Definitions, Issues, and Challenges”, a research paper by Lauren Movius\(^3\) presented at University of Southern California, USA, covers the following themes: understanding the challenge of governing the Internet; frameworks and definitions of Internet governance; and the evolution of the Internet governance debate. As there is much
disagreement about what Internet governance, this paper synthesizes the main issues and debates and provides an overview of Internet governance.

“Internet governance issues, actors and divides”, a book authored by Eduardo Gelbstein & Jovan Kurbalija states that Internet Governance is not a simple subject. Although it deals with a major symbol of the digital world, it cannot be handled with a digital - binary logic of true/false and good/bad. Instead, the subject’s many subtleties and shades of meaning and perception require an Analog approach, covering a variety of options and compromises. Therefore, this booklet will not attempt to provide definitive statements on Internet Governance issues. Rather, its aim is to propose a practical framework for the analysis, discussion, and resolution of the key problems in this field.

“Report of the Working Group on Internet Governance” (WGIG), presented the following. A working definition of internet governance, Identification of the public policy issues that are relevant to Internet governance and development of a common understanding of the respective roles and responsibilities of Governments, existing international organizations and other forums, as well as the private sector and civil society in both developing and developed countries.

Glenn Kowack at ‘Internet Enterprise Development’, published a research paper titled “Internet governance and the emergence of global civil society”, where he states that “The Internet has created a new cost-implosive economic for long distance interaction and the creation of global organizations. A guiding vision for Internet governance is proposed, based in that economic, and the resultant emerging global civil society. New
organizations and global civil society will challenge existing rule of law, traditions, and culture far more than the Internet does today”.

Arun Mehta⁷ in his research article “challenges the internet poses to the policymaker”, addresses policymakers at national and international levels, regulators, standards bodies and politicians, arguing that “there is no “beyond” the Internet. With the Internet so intimately intertwined with the lives of people, being used to build the backbone of large, important communities, an attempt to replace it with a new network would generate immense friction, and cost a lot”.

A briefing paper tilted, “Internationalized Domain Names – Intellectual Property Considerations”, Prepared by the Secretariat of the World Intellectual Property Organization (WIPO) presented at a Joint Itu/Wipo Symposium⁸ in Geneva 2001, clarifies that, “the Internet has its origins and its root in the United States, where it emerged in the 1950’s as an experimental system developed by the academic and military research establishment. Since that time, and with the addition of the user-friendly World Wide Web, the Internet has been transformed into a multifaceted network for communication and commerce, whose purposes are as broad as the Internet community that employs it”.

Wang Xing⁹ of ‘Information Systems and Innovation Group’ published a research paper titled “Governments Involvement in Internet Governance: A Literature Review”. In his paper he concludes that “governments are both necessary and inevitable to be involved in Internet governance, but in order to make a better environment for the Internet and to enhance freedom, democracy and economic development in the real world, they
need to limit their power, improve their transparency and coordinate with other stakeholders based on relevant international and regional platforms”.

IEEE Communications Magazine in its Dec 2005 Issue, published an article titled “The US role in global internet governance”, under the theme ‘Regulatory and Policy Issues’. The article comments that “any transition raises short-term uncertainties, fears, and risks. That is why it is essential that the U.S. government take a cooperative and progressive role in Internet governance. The United States must accept the need for change and actively put forward viable ideas for the internationalization of its oversight and supervision functions”.

Jeremy Shtern in his Ph.D. Thesis “Global Internet Governance and the Public Interest in Communication”, Submitted to University of Montreal, Canada, examines how the global debate on internet governance influences the public interest in communication. It reviews the emergence of the issue of internet governance at the WSIS and provides an in-depth accounting of the negotiations that followed. On the basis of a case study, a series of conclusions are drawn about the actors and institutional characteristics that influenced the WSIS negotiations on internet governance.

Maeng Joo Lee in his PhD Dissertation “Linking Governance and Performance: ICANN as an Internet Hybrid”, submitted to Virginia Polytechnic Institute and State University, “systematically assesses ICANN’s overall performance based on a set of evaluative criteria drawn from its mission statements, explores possible factors and actors that influence ICANN’s overall performance, and suggests practical and theoretical implications of ICANN’s governance and performance in its broader institutional context.
Milton Mueller\textsuperscript{13}, in his book “Ruling the Root: Internet Governance and the Taming of Cyberspace”, analyze the global policy and governance problems created by the assignment of Internet domain names and addresses. “Mueller explains how control of the root is being leveraged to control the Internet itself in such key areas as trademark and copyright protection, surveillance of users, content regulation and regulation of the domain name supply industry”. Further he shows how the freedom and openness of the Internet is being diminished by the institutionalization of the root.

A research paper published by Mohd Nazri Mahmud\textsuperscript{14} in ‘Journal of Computer and information science’ titled “Modelling the Dynamics of Internet Adoption”, highlights the dynamics of internet adoption in a general society based on the segmentation of the society into subcultures according to their respective affinities towards Internet adoption. System dynamics model are built to reveal the dynamics.

Nevena Ružić\textsuperscript{15} in her Master dissertation “Freedom of Expression on the Internet”, submitted to University of Malta, shows how “diverse the world is and how cultural, political, religious and social differences make the universal dimension of freedom of expression difficult”. It also shows “how complicated the issue of this freedom on the Internet is within existing mechanisms, national or international, state or self-regulatory”. She emphasises the need for better cooperation between namely the governments and other stakeholders, particularly Internet service providers.

Anti-Phishing Working Group(APWG), in its industry advisory “Global Phishing Survey: Trends and Domain Name Use in 1H2010” by Rod Rasmussen & Greg Aaron\textsuperscript{16}, takes a look at Avalanche’s evolution,
examining “how e-criminals have incorporated interrelated methods including phishing, malware, botnets, and spam into their work”.

A Primer by Akash Kapur \(^{17}\) entitled “Internet Governance” makes it clear that “Internet governance remains a work in progress, with its final dispensation and shape unlikely to emerge in the immediate future. While it is always difficult to make predictions, some likely trends can, however be identified”. In particular, it appears likely that in the future national governments may play a greater role in Internet governance, although it should be noted that many actors remain wary of granting States too much power.

“Internet Governance in Transition: Who is the Master of this Domain?” a book authored by Daniel J. Paré\(^{18}\), states that “though this network of information seems to be the world's property, a multitude of controversies has erupted at international, national, regional, and local levels over the appropriate forms of governance for the Internet and its applications”. He examines the historical, sociological, and political consequences of attempts to reconfigure the management and administration of the Internet Domain Name System (DNS). Pare provides an “empirical basis for critically evaluating much of the contemporary theorizing about the Internet and its governance”.

Lawrence B. Solum\(^{19}\) in his research paper with the title “Models of internet Governance” presented at ‘University of Illinois’ tries to explain Internet governance as: “regulation of Internet infrastructure, its current operation, and the processes by which it develops and changes over time. In other words, the narrow focus of Internet governance is about the processes, systems, and institutions that regulate things like TCP/IP, the
Domain Name System, and IP numbers. Solum successfully demonstrates five different Internet governance models’ and defends their usability.

A book by Rolf H. Weber\textsuperscript{20}, “Shaping Internet Governance: Regulatory Challenges”, explores various regulatory aspects of internet governance. Weber at point in his book states, “Originally the Internet was developed beyond a regulatory legal framework and was mainly based on self-regulation by its users, since the assumption prevailed that cyberspace was an independent new “province” in the world, not governed by laws in the legal sense, but rather by “codes” defining the Internet”. In one of his concluding remarks Weber writes “The rapid growth and expansion of the Internet provide for constant challenges in respect to organizations concerned with the Internet such as the ICANN, the IETF, the ISOC, the W3C etc”.

“ICT4D: Information and Communication Technology for Development” a book edited by PTH Unwin\textsuperscript{21}, provides an authoritative and accessible account of the use of ICT in contemporary development practice. It combines theory with practical guidelines including both conceptual framework for understanding the rapid development of ICT4D and practitioners.

Jay P. Kesan\textsuperscript{22} in his research article “Private Internet Governance” analyzes the effectiveness and limitations of the regulation of electronic commerce by private entities on the Net. He relies on two detailed case studies and finds advantages and disadvantages of each regulatory regime and considers the problems faced by both types of institutions in efficiently managing a regulatory system. At last he demonstrates how this system can be improved through governmental involvement.
A PhD Dissertation “The duality of information policy debates: the case of the internet governance forum”, submitted to the ‘Faculty of the Graduate School’ University of Cornell, by Dmitry Epstein\textsuperscript{23}, explains the inner workings of the IGF as a “space where the historical tensions between the traditional methods of global policymaking and the unorthodox approach to governance developed by the Internet community are played out”. His analysis demonstrates how the two worldviews on “Internet policymaking co-exist and collide within the formalized bodies of the IGF, and how they are enacted through practices that evolved around the IGF fixtures”.

“Multi-Stakeholder Governance and the Internet Governance Forum”, a book written by Jeremy Malcolm\textsuperscript{24}, says that “Multi-stakeholder governance is a fresh approach to the development of public policy, bringing together governments, the private sector and civil society in partnership”. In this groundbreaking and incisive book, Jeremy Malcolm examines the new model of multi-stakeholder governance for the Internet regime that the IGF represents. He then builds a “compelling case for the reform of the IGF to enable it to fulfill its mandate as an institution for multi-stakeholder Internet governance”.

Declaration of Principles\textsuperscript{25} by ‘World Summit on the Information Society’ under the theme “Building the Information Society: a global challenge in the new Millennium” at Geneva. WSIS declared the desire and commitment to “build a people-centred, inclusive and development-oriented Information Society”. Here everyone “can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential”.

11
Journal of Internet Banking and Commerce printed an article with the title “The Internet and the Need for Governance: Learning from the Past, Coping with the Future”, by Prabir K. Neogi & Arthur J. Cordell. The authors maintain that “building of such an infrastructure, which provides trust and confidence for all those who operate in or are affected by it, is a necessary condition for the development and efficient functioning of a global, digital economy”. They also show that “costs will result if the global economy has to function on the basis of distrust, both at the individual and transaction level”.

Research paper by Jacques Berleur, penny Duquenoy and Diane Whitehouse, presented to ‘International federation for information processing’ with the title “Ethics and the Governance of the Internet”, is intended as an “overview of the current debates surrounding use of the Internet and regulation of the communications possibilities that the net offers”. The paper lists a number of topics that have an ethical content, and highlights some issues that are coming to the fore in the debate. It makes three recommendations to the member societies of the (IFIP), urging those members to take these suggestions on board.

Elizabeth.A.Williams in her Doctoral Thesis “The Globalisation of Regulation and its impact on the Domain name system: Domain names and a new regulatory economy”, submitted to ‘Queensland University of Technology’, encompasses considerations of politics, regulation and technology. It considers the “impact of technology on the way in which, politically, we are able to regulate technology and how we devise policy to guide that regulation”.

12
Mark Raymond and Gordon Smith\textsuperscript{29} in the research paper “Reimagining the Internet: The Need for a High-level Strategic Vision for Internet Governance” argues that the existing “politics of Internet governance are best understood as a complex, high-stakes case of rule-making”. Understanding Internet governance as rule-making yields two insights, “First, the Internet is not governed by a single set of rules, second, openness to employing informal rules and soft law instruments offers advantages”. The paper concludes by articulating the need for a high-level strategic vision for Internet governance.

Report of the “Working Group on Improvements to the Internet Governance Forum”, presented at Sixty-seventh session\textsuperscript{30} of the ‘General Assembly by United Nations’, gives brief account of the establishment and the outcome of its three meetings held at the end of 2011 and in early 2012, and found that the Working Group, was not able to complete its task given the complexity and political sensitivity of the subject. The Working Group established areas which should be improved, and gave relevant recommendations on improvements to the Internet Governance Forum.

“Tipping the Scale: An Analysis of Global Swing States in the Internet Governance Debate” a research paper by Tim Maurer & Robert Morgus\textsuperscript{31} illustrates that the World Conference on International Telecommunications (WCIT), demonstrated considerable state support for two different visions for “Internet governance, on the one hand, a bottom-up model driven by various stakeholders including civil society, private companies and governments, and on the other, a top-down model driven primarily by governments and with a central role for the International Telecommunication Union (ITU)”. As Internet governance continues to
rise from low to high priority politics, the stakes will increase and tensions and disagreements will become more likely.

John Mathiason in his book “Internet Governance: The New Frontier of Global Institutions”, tells the narrative of the internet governance, where the linkage between technology, information, individuals, old regulatory regimes and new approaches have led to a great experiment.

At The ‘66th Session of the United Nations General Assembly’, Mr. Dushyant Singh, Member of Parliament India, proposed the establishment of a new institutional mechanism in the United Nations for global internet related policies, to be called the United Nations Committee for Internet-Related Policies (CIRP). The intent behind proposing a Multilateral and Multi-stakeholder mechanism is not to "control the internet, or allow Governments to have the last word in regulating the internet, but to make sure that the Internet is governed not unilaterally, but in an open, democratic, inclusive and participatory manner, with the participation of all stakeholders”.

Thesis of Dave Clemente’s Paper “Adaptive Internet Governance Persuading the Swing States” is, that the “dominant states in cyberspace, who also tend to be the most highly connected, must anticipate and prepare now for an extended, complex and contentious debate on Internet governance”. The political and technical seeds of “Internet fragmentation i.e. segmentation into “national” networks, are currently being laid, and reflect the state-led governance approach that many nations favour”.

Draft of some of the basic ‘Internet governance principles’, proposed by ‘Cellular Operators Association of India’ (COAI), at NET-mundial
“Global Multi-stakeholder Meeting on the Future of Internet Governance: Brazil”, includes the following. Recognize and develop a multi-stakeholder approach to policy development, Support and promote an open and connected Internet, Promote investment in critical infrastructure, Promote and protect the free flow of information, Promote creation of multilingual content and Limit intermediary liability.

The primary thesis of the research paper, “Thinking Clearly about Multistakeholder Internet Governance” by Dr. Laura DeNardis and Dr. Mark Raymond, presented at ‘Eighth Annual GigaNet Symposium’ is, that “multi-stakeholderism should not be viewed as a value in itself to be applied homogenously to all Internet governance functions. Rather, the appropriate approach to responsible and effective Internet governance requires determining what types of administration are optimal for promoting a balance of interoperability, innovation, free expression and operational stability”.

Research article “A Constitutional Solution for Internet Governance” by Rolf H. Weber & R. Shawn Gunnarson, proposes solutions to the persistent questions of what standard of accountability “ICANN should adopt and how that standard can be achieved”. Their thesis is, that “ICANN needs binding and independent accountability and that this standard is best achieved by applying traditional principles of constitutional law to ICANN’s corporate governance”.

The book “The Race to Control Internet Governance”, by Kowack, states that in the past five years the Internet has had enormous impact on business, and now business in turn is reshaping it. “Government, business, education, and a variety of international organizations are all contending
for influence as the Internet evolves”. This book raises critical questions about regulation and educates decision makers for the debate ahead.

The United Nations Information and Communication Technologies Task Force published a book, edited by William J. Drake, titled “Reforming Internet Governance: Perspectives from WGIG”. The aim of this book was to give some insight into an exceptional experience of multi-stakeholder cooperation. It contains “personal impressions of a group of people with a wide variety of backgrounds who were either members of the United Nations Working Group on Internet Governance (WGIG) or part of the Secretariat that supported its work”. Concluding remarks by the author states that, WGIG process mattered because it demonstrated the utility and necessity of multi-stakeholder participation in Internet governance, facilitated the WSIS negotiations, promoted public engagement and clarified the nature and scope of Internet governance.

Virginia Journal of Technology published a paper written by David, Susan & Crawford entitled “The Accountable Internet: Peer Production of Internet Governance”. The paper highlights the need to keep the fundamental architecture and values of the Internet in mind, so as to act collectively to control malicious forms of electronic wrongdoing online. The paper also informs us about the risks involved in the Internet that makes peers accountable to one another, which are much lower than the risks of empowering any centralized global authority to make connection decisions for individuals.

Research Handbook on “Governance of the Internet”, Edited by Ian Brown, ‘University of Oxford’ provides a comprehensive overview of the latest research on internet governance. Thought-provoking chapters cover
topics such as ICANN, the Internet Governance Forum, grassroots activism, innovation, human rights, privacy in social networks, and network neutrality.

Mueller, Mathiason & McKnight42 “Making Sense of Internet Governance: defining Principles and Norms in a Policy Context”. This paper proposes a concise definition of Internet governance, enumerates existing Internet governance regimes, identifies basic principles and provides a framework for the analysis of specific policy issues. Most importantly, it “provides a structured way to come to an agreement on whether new Internet governance arrangements are needed and if so, how they should be institutionalized”.

George Sadowsky, Raul Zambrano & Pierre Dandjinou43 in the background paper prepared for UNICT Task Force having the title “Internet Governance: A Discussion Document” elaborates the following. Provide a framework that can contribute to sorting out and understanding the issues surrounding the term Internet governance. This paper is aimed “primarily at those issues that are of importance and relevance to developing countries”. The paper adds “clarity to the discussion by presenting a framework that provides certain fundamental delineations between different aspects of the activities surrounding the Internet”.

“Protocol Politics: The Globalization of Internet Governance”, a book by Laura DeNardis44, examines “what’s at stake politically, economically, and technically in the selection and adoption of a new Internet protocol”. Laura offers recommendations for Internet standards governance, based not only on technical concerns but on principles of openness and transparency, and examines the global implications of looming Internet address scarcity
versus the slow deployment of the new protocol designed to solve this problem.

Mary Rundle\textsuperscript{45} in her research paper entitled “Beyond Internet Governance: the emerging International framework for Governing the Networked World” writes, that governments are regulating the “Net” i.e. the Internet and people’s activities over it. In her paper she addresses “foreign commercial relations, jurisdiction, infrastructure, security, monetary authority, property, relations between private parties, and citizenship”. She comments that “those who hold freedom dear must work to build democratic values into this emerging international system”.

“Internet Governance: exploring the development link” research paper by Howard Williams\textsuperscript{46} from University of Strathclyde, seeks to explore the issues of Internet governance from a development perspective. The paper observers that “realising the contribution of the Internet to development goals requires a shift in policy focus away from supply side initiatives in the telecommunications sector to more co-ordinated approaches”.

Robert K. Knake\textsuperscript{47} in his special report to ‘council on foreign relation’ with the title “Internet Governance in an Age of Cyber Insecurity” briefly examines the “technological decisions that have enabled both the Internet’s spectacular success and its troubling vulnerability to attack”. He sketches the “legal tools necessary to address both cyber crime and state-sponsored activities, including national prohibitions of cyber crime, multilateral mechanisms to prevent and prosecute cyber-attacks, and peacetime norms protecting critical civilian systems”.

18
“Net Neutrality: Towards a Co-Regulatory Solution” the book by Christopher T. Marsden explores the hype articulated by Network Neutrality advocates and opponents. He offers a clear-headed “analysis of the high stakes in this debate about the Internet's future, and fearlessly refutes the misinformation and misconceptions”. The author considers “market developments and policy responses in Europe and the United States, draws conclusions and proposes regulatory recommendations”.

Oxford Internet Institute’s Forum Discussion Paper entitled “The New Economic Context of Internet Governance” by Desiree Miloshevic, Anna Dopenka and William H. Dutton focused on possible “regulatory spill-overs from the financial sector to the Internet in its exploration of how the current global economic crisis could influence the development of Internet governance processes”. Analogies between the “Internet and financial sectors, including their vulnerabilities and governance complexity, were highlighted as a means of throwing light on current and future Internet governance dynamics”.

Lee, Bygrave & Bing in their book “Internet Governance: Infrastructure and Institutions” focus on the issues involved in the ongoing “development of Internet governance, and the challenges associated with developing and applying governance structures at a global level based on bottom-up, consensus-seeking decision-making procedures, without direct foundation in a treaty frame-work”. Authors examine the tensions inherent in Internet governance, such as “government control versus digital libertarianism; commercialism versus civil society ideals”, interests of developed countries versus interests of developing countries.
“ICANN at a Crossroads: A Proposal for better governance and performance” a research paper by Thomas M. Lenard and Lawrence J. White⁵¹, reviews ICANN’s structure and functions, and also the structures of a number of other organizations that perform a roughly comparable range of private-sector and governmental coordination and standard-setting functions, to explore what might be applicable to ICANN. We find that although ICANN has control over extremely important aspects of the Internet, it is largely accountable to no one. Authors find that no organization with ICANN’s level of responsibility operates with the independence that ICANN enjoys.

1.7 Hypotheses:
The present study is exploratory and analytical in nature based on following Hypothesis

Hypothesis 1:
The growth of Internet Governance process in developing countries is slower then developed countries.

Hypothesis 2:
The Internet and telecommunication services are cheaper in developing countries compared to developed countries.

1.8 Objectives of study:
The study intends to cover following objectives:

1) Study of various infrastructural layer governing bodies like ITU, IANA, IRTF, W3C…
2) Analyse the involvement of logical layer governors like ICANN, IAB, IETF …
3) Study the participation of Social International organizations in protecting the rights of civil society by enforcing laws of copy write, trademarks and patents.

4) Study the role of International organizations responsible for controlling transactions of Internet contents. OECD, TECF, UNDP.

5) To compare the five selected countries on the basis of selected ICT indicators.

6) To analyze and present a suitable methodology for good governance.

1.9 Research Methodology:
A through literature review has been done for gaining an in depth knowledge of Internet and its governance by various governors. The analytical part of this research work is based on secondary data acquired from International Telecommunication Union which is a trusted United Nations agency. Time series chronological data ranging from Year 2008-12 of five different Countries pertaining to 32 different ICT Indicators has been undertaken for the study and few conclusions have been drawn. The Countries selected for the purpose of comparison are India, China, United Kingdom, United States, and France. Of the Countries selected two are from Asia, two from Europe and USA as the representative of the developed Countries.
A suitable hybrid model has been suggested after undertaking comparative analysis of present models.
1.10 Scope & Limitations:
The study proposes to cover all the models, layers and mechanisms presently in application. It aims at providing a suitable model and methodology for governance. The study is limited to models, mechanisms & governance methodologies.
The data collection is limited to 2008-12(Five Years) and only 32 different ICT indicators out of 151 indicators were selected for study, because the data for 10 Years for all the indicators was not available. If the data for all 151 indicators and for 10 years period is taken, the results might have been different.

1.11 Chapter Scheme:
1. Introduction
2. Internet Governance an Overview
3. Infrastructure and Standardization
4. Regulatory and Policy Issues
5. Study of Internet Governance Models and Proposals
6. Country wise Data analysis and Interpretation of selected ICT Indicators
7. Comparative analysis
8. Conclusions & Suggestions
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25