LUND UNIVERSITY
Department of Political Science

Master of European Affairs
Tutor: Jakob Gustavsson

Governing the Internet

A Process-Oriented Study of the Evolution of the Internet Governance Regime

Julia Kahan-Czarny

Abstract

The main purpose of this thesis is to study the Internet governance regime. In order to achieve this, I have a theoretical and an empirical ambition. The first is to develop a process-oriented theoretical framework for studying the evolution of the Internet governance regime, which I argue is necessary in order to capture the dynamics of regime evolution. The framework is based on the structuration theory, which states that actors and structures are mutually constitutive, and theories of power affirming that the Internet technology is both a power resource and one of our globalized society's main infrastructures. The issue's politicization I illustrate by outlining the ongoing normative conflict between the US and the EU and the developing countries over Internet governance. Moreover, I argue that the specific nature of the Internet technology has been important for the regime's development. The second ambition is, because of the novelty of the subject, to provide a comprehensive explorative account of the Internet governance regime. I conclude that the theoretical framework is well-suited to explain the Internet governance regime and that, because of the general character of the framework, it might be able to explain other regime developments.

Key words: Internet, governance, power, process, structuration

Table of Contents

Appendix A

Abbreviations

ARPA – Advanced Research Projects Agency
DNS – Domain Name System
EU – European Union
GAC – Governmental Advisory Committee
gTLD-MoU – Generic Top Level Domain Memorandum of Understanding
IAHC – International Ad Hoc Committee
IANA – Internet Assigned Numbers Authority
ICANN – Internet Corporation for Assigned Names and Numbers
ICT – Information and Communication Technology
IETF – Internet Engineering Task Force
IGF – Internet Governance Forum
IO – International organization
IP – Internet Protocol
ISOC – Internet Society
ITU – International Telecommunication Union
NSF – US National Science Foundation
NTIA – National Telecommunications and Information Administration
SRI – Stanford Research Institute
TCP – Transmission Control Protocol
TLD – Top-Level Domain
UN – United Nations
US – United States
WIPO – World Intellectual Property Organization
WSIS – World Summit on the Information Society
WWW – World Wide Web

1 Introduction

”The Internet is the fabric of our lives” (Castells, 2001: 1).

The world is undergoing profound changes in times of globalization Information and communication technologies (ICTs) have been a decisive factor in the globalization process and in the creation of the present information age. The importance of technology is seen in the incredible development and spread of the Internet, which has come to be appreciated as one of the main infrastructures of our network society (Castells, 2001: 1) and the nature of the technology – the openness of the Internet – has become a prerequisite for the world economy to work effectively (Kleinwächter, 2004: 32).

In the case of Internet governance, reality, with its technological development and the Internet’s importance to our society, has gone beyond the imagination of leaders around the world, and has left decision-making far behind. Not even the computer scientists, who invented the Net, anticipated that it would end up being one of our foremost infrastructures. *“What started out as an exciting research activity for a few of us some thirty years ago has become a staple part of the fabric of our society, and will likely remain so for the foreseeable future”* (Kahn, 2004: 16).

The implications of the technology, be it political, cultural, technological or economic, have only recently found their way to the minds of world leaders, who only a few years ago joined forces to make policies for the Internet – the beginning of a global Internet governance regime.

The power of the Internet technology is illustrated in the ongoing conflict over how the Internet should be governed and by whom. Internet Governance has become a high-politics issue illustrated by the ongoing dispute between the United States on one side not interested to let go of its final authority of the Internet and the EU with developing countries on the other side working for a more inclusive process with focus on distributional issues and development. Despite this ongoing global controversy, the normative framework for Internet governance is gradually developing. The breakthrough for an inclusive global governance of the Internet came when world governments, businesses, scholars and representatives of civil society convened at the World Summit on the Information Society, in Geneva 2003 and Tunis 2005 acknowledging that Internet is an intrinsic part of globalization and world development.

1.1 Statement of Purpose and Research Question

The main purpose of this thesis is to explain the evolution of the Internet governance regime, and in order to achieve this I have two ambitions – an empirical and a theoretical. The empirical ambition is mostly explorative in nature, which is due to the fact that the subject is so novel and understudied.

My second and secondary empirical aim is to show how politicized the technology and Internet governance has become, which can be illustrated by the power game between the world's two strongest powers, the United States of America and the European Union in the WSIS negotiation process.

The theoretical aim is to construct a process-oriented theoretical framework capable of interpreting the development of the Internet governance regime. The framework is based on a discussion on several theoretical discourses, in which the focus is on the relationship between society and technology in general and the power constituting the new information and communication technology – the Internet.

In achieving these aims I will answer the following question:

How can the evolution of the Internet governance regime be explained?

1.2 Theory and Method

"The study of regimes (…) implies that we cannot know the reality "out there" because our notion of what it contains changes with every twist of the scientific enterprise. Man-the-knower is the victim of his methods of acquiring knowledge and is therefore condemned to settle for successive approximations to reality." (Haas, 1982: 25).

The focus of this study is, as mentioned above the evolution of a regime. The process of establishing a set of rules for the Internet is fairly new, especially at the global level (transnational). This is not surprising considering that the technology itself is so recent. The choice of analyzing a process has some methodological implications, as do any other choices in a research process – even the choice of theory and method influence the result (Lundquist, 1993: 131-132).

In the scholarly methodological discourse qualitative studies, case studies especially, are often criticized for being unscientific (Peters 1998: 137). It is also argued that it is not possible to make generalizations from a single case, which is what "real" science is supposed to produce (Yin, 1984: 10). Arend Leijphart adheres to these ideas when he states that *"if at all possible one should generally use the statistical (or perhaps even the experimental) method in stead of the weaker comparative method."* (1971: 685).

In response to this criticism Robert K. Yin argues that this validity problem is already solved, because a case study only claims to make "*analytical*

generalizations", which means that the researcher strives to generalize his results to some broader theory. He also reckons that not even the largest set of samples or cases can handle these complaints satisfactorily. (1984: 39).

Hence, embarking on a purely qualitative study of a political process makes it even more important to address the implications of the chosen methodology and acknowledging the trade-offs in the ability of making large inferences/generalizations (Landman, 2003: 34; Peters, 1998: 5), which, however, is not my ambition in this study.

Yin also states, referring to the case study as a research tool, that "*the distinctive need for case studies arises out of the desire to understand complex social phenomena.*" (1984: 14); that it is useful in studying processes; and that it is an "empirical enquiry that: investigates a contemporary phenomenon within its real life context; when the boundaries between phenomena and context are not clearly evident; and in which multiple sources of evidence are used" (Ibid: 23). Internet governance is, in my opinion, a prime example of such a phenomenon.

1.2.1 The Analytical Perspective

Understanding the development of the Internet governance regime requires a process-oriented approach. Using sociologist Anthony Giddens' theory of structuration (1984) as an analytical tool allows for an encompassing view of the process of regime development. The main point of the structuration theory, and most important to this thesis is that: "[t]he constitution of agents and structures are not two independently given sets of phenomena, a dualism, but represent a duality." (Giddens 1984: 25).

Alexander Wendt proposes the application of the structuration theory as a meta-theoretical approach in the study of IR. He underlines the importance of taking into account both structural and individualistic factors in IR theorizing (1987: 337-339). The value of this approach, he argues, is that it "provides a conceptual, or meta-theory for thinking about real world social systems." (Ibid: 355).

In line with this argument, Kenneth Glarbo asserts that the structuration theory as an analytical tool is one of few viable methods to conduct operable constructivist research (Glarbo, 2001: 144).

Furthermore, Wendt addresses one of the most critical problems using this kind of approach; "*the danger of circular reasoning and self-confirmation*" (1987: 357), which is one of the general complaints of mainstream social science. In order to address this problem in a satisfactory manner he suggests that one has to find evidence for the structures and the intrinsic mechanisms, which are "*independent from the particular observations from which the structure was abduced, and to recognize and attempt to control for the radical openness of social systems.*" (Ibid: 358). These arguments, I believe, are crucial in responding to the criticisms that constructivist theorizing has been receiving from both rationalists (mostly) and reflectivists.

Relating the above arguments to the socio-technological realm, the structurationist approach is well suited to illustrate the interaction between actors and technology as a dialectic process making it possible to avoid the dilemma of choosing between an objective and subjective epistemology (Orlikowski, 1992: 403). In order to better understand the importance of technology to our society the conceptualization of power has to be able to encompass the transformatory nature of the Internet technology, which J. P. Singh (2002) does in his notion of meta-power. This in turn allows me to argue that the Internet has become one of the main infrastructures of the globalization process and a power resource and an important part of global politics.

1.3 Material

Assessing the material on which this study is based is of course essential and by using the case study methodology I have had the possibility to use a range of different sources and material.

The theoretical chapter is primarily based on secondary sources in the form of books, chapters in books and articles published by the leading journals and written by prominent scholars and experts in the different fields that the theoretical framework consists of.

The empirical sources are both primary and secondary. The secondary sources are mainly articles published by leading journals, specialized online newspapers and a few book chapters. Much of the research conducted on Internet governance has until now mainly been published as policy recommendations directed towards the WSIS process.

Moreover I have made use of different kinds of primary sources in the form of official reports documents and statements from political leaders and officials.

In order to substantiate the material from the existing but scarce sources, I have furthermore conducted an interview with one of, on the issue, most informed Danish officials, who took part in the WSIS negotiation process.

1.3.1 The Interview

The interview was conducted in March 2006 with, the Head of International ICT Policy at the Danish Ministry of Science, Technology and Innovation, Sidse Ægidius, who at the time was one of the central Danish negotiators during the process. Moreover, Ægidius was in charge of the negotiations leading to the WSIS in 2003 and 2005, the Prepcom I and Prepcom II meetings[1].

[1] Preparatory meetings in the Preparatory Committee that took place before the two WSIS Summits.

It is argued that the objective of using interviews in case studies can be the illustration of general phenomena (Kvale, 1997: 94). The interview was conducted with an explorative aim of acquiring general information on the topic of Internet governance. Secondly, the purpose was to, in a more structured manner to confirm or disprove my initial suppositions about the power struggle between the European Union and the United States reported on in newspapers and magazines and other media during the WSIS negotiations. However, it turned out impossible to get sufficient material on this specific topic. It was the interviewee's information from inside the negotiations that was the main reason for redirecting this study to its current and more theoretically informed form.

The interview was made in the early stage of the writing process, which has affected the outcome. The early ambition was to make an empirical study of the process with the EU-US power battle over how the Internet should be regulated, which would have put the story in focus. This was, however, not possible because the issue is so novel itself that there is an overall shortage of reliable empirical information and therefore also a lack of theoretically informed research.

Information is not value neutral, not even the most acknowledged valid and reliable sources. It is influenced by the researcher and the research process (Kvale, 1997: 45; Lundquist, 1993: 131-132). This holds true for this interview as well. Sidse Ægidius was speaking on behalf of the Danish government, which to some extent inhibited the interviewee to speak freely and did not allow her to answer one of my posed questions. This is however a risk worth taking in a situation when the information would not otherwise have come to the fore. Moreover, it is not the aim to base the study on the interview material (A transcription of the interview can be found in appendix A).

1.4 Delimitations

The issue in focus of this study is a complex one and with the constraints of only being able to write a certain amount of characters, I do not attempt to explain every detail of the IG regime. Besides, as mentioned above limitations arise when a conceptual tool is used in explaining something making simplifications of complicated issues. Equally important to note is that the dynamics of the process are complex and that the Internet, and technology in general, is not monocausal.

So, as in any other studies this thesis is a product of my choices of theory, method and illustrative empirical facts. This is well illuminated by the words of Allison:

"Conceptual models not only fix the mesh of the nets that the analyst drags through the material in order to explain a particular action, they also direct him to cast his nets in select ponds, at certain depths, in order to catch the fish he is after." (Allison, 1971 cited in Jönsson, 1987: 153).

1.5 Plan of the Study

Chapter two is a presentation of the theoretical framework, which is based on a discussion of several theoretical discourses, beginning with globalization, interdependence and networks. Then follows a discussion of regime theory, in which I argue the importance of undertaking a process-oriented perspective in studying regime development. Next I discuss the relationship between humans and technology on the basis of the structurational premise of actors and structures mutually affecting each other. Then I discuss the concept of power and the importance of new information and communication technologies and the Internet to our contemporary society, hereby establishing that technology in general, and the Internet in particular, is a power resource.

Then, after outlining what Internet governance is about, I apply the process-oriented analytical tool in order to analyze the development of the Internet governance regime by identifying some of the most important characteristics and dynamics that have driven the process forward.

Lastly, I draw conclusions from the theoretical and empirical chapters answering the research question as well as lifting the theoretical discussion to a more general level.

2 Towards a Process-oriented Approach to Regime Evolution

This chapter contains the entire process-oriented theoretical framework, which forms the foundation for the empirical analysis of the Internet governance regime.

2.1 Globalization, Interdependence and Networks

"[G]lobalization represents a significant shift in the spatial reach of social relations and organization towards the interregional or intercontinental scale. This does not mean that the global necessarily displaces or takes precedence over local, national or regional orders of social life. Rather, the point is that the local becomes embedded within more expansive sets of interregional relations and networks of power. Thus, the constraints of social time and geographical space, vital coordinates of modern social life, no longer appear to impose insuperable barriers to many forms of social interaction or organization, as the existence of the World Wide Web, and around-the-clock trading in global financial markets attests." (Held & McGrew, 3-4).

The world is undergoing profound changes, a fact most people would agree upon. However, the nature and importance of these changes is highly debated and contested. Even though the meanings of globalization can be found in the writings of intellectuals from the nineteenth- and early twentieth-century, the exact term 'globalization' was not commonly used until the 1960s and early 1970s, when political and economic interdependence spread like rings in the water. The traditional approaches to politics and economics that separated the internal and external environments were no longer adequate in explaining the changes occurring. Events occurring in one part of the world would have impacts in other distant locations requiring new understandings of these complex processes. The fall of the Soviet Empire and the victory of capitalism spurred and intensified the globalization debate.

The understanding of globalization differs widely and the word itself is heavily contested. Held and McGrew identify two ideal-type positions in the debate: on the one hand there are the 'globalists' who view globalization as an important historical process with real structural changes in society, on the other hand, the 'skeptics' see it as a mainly ideological construction with no significant explanatory value. There are still parts of the world's population who are not benefiting from the process of globalization, which therefore is both disruptive and contested (Held & McGrew, 2003: 1-8).

Globalization is seen as *"a process (or set of processes) which embodies a transformation in the spatial organization of social relations and transactions – assessed in terms of their extencity, intencity, velocity and impact – generating transcontinental or interregional flows and networks of activity, interaction, and the exercise of power."* (Held et. al, 2003: 68).

Interdependence, defined by Keohane and Nye, is based on the primacy of nation states and the reciprocal relations between different countries and actors in countries. Interdependence is a condition that may increase or decrease and is applicable to the process of globalization, which entails a notion of growth or expansion. Globalism, is a state of the world involving networks of interdependence across continents, and it may increase or decrease. The connections happen through flows and influences of capital and goods, information, ideas, people and forces. Globalization and deglobalization, in turn, refer to the increase or decline of globalism. As interdependence and globalism have become denser, systemic relationships among different networks have become increasingly important (2001: Chapter 10).

It is argued that the information revolution, especially in terms of reduced costs of communications, has been the single most important enabler of the globalization process. The rapidly reducing costs of communications have facilitated interaction among individuals and networks and increased the number of participating actors.

In reference to the notion of complex interdependence Ernst Haas agrees with the fact that it does not have to presuppose a certain international hierarchy of states and fixed preferences. However, complex interdependence does not permit these preferences to change in response to new knowledge (1982: 57).

Anne-Marie Slaughter further argues that the center of this world is a web of networks and governance is conducted through a global web of government networks. The state is not to be viewed as a unitary entity acting in an anarchic world as viewed by traditional IR-scholars. Even the idea of complex interdependence is based on the conception of the primacy of the nation state, which also remain the primary political authority in a networked world (2004: 1-16).

Collective action problems that cannot be solved on a national level, alone, require global and regional institutions. The rise of global policy networks has been a crucial feature of global governance because they have made possible the joint actions of both public and private actors on issues that have worldwide interest (Ibid: 9-11). In its most basic sense a network is, in Manuel Castells' words, "a set of interconnected nodes." (2001: 1). The network society is a social structure primarily built on networks that is characterized by three independent processes: "the needs of the economy for management flexibility and for the globalization of capital, production and trade; the demands of society in which the values of individual freedom and open communications have become paramount, and the extraordinary advances in computing and telecommunications made possible by the micro-electronics revolution. Under these conditions the Internet has become a force in the transition to the new form of society – the network society" (Castells, 2001: 2).

2.2 International Regimes

"Theories of international regimes are products of the time in which they were written: How one thinks about regimes is a function of how one thinks about learning, about the growth of human co nsciousness, about social evolution. The ontogeny of theories about regimes recapitulates the history of science." (Haas, 1982: 23).

Relationships of interdependence often occur within, and may be affected by networks of rules, norms, and procedures that regularize behavior and control its effects. The sets of governing arrangements that affect relationships of interdependence are the international regimes (Keohane & Nye, 2001: 17).

The past decades has seen an increase in international regimes and institutions, e. g. the signing of treaties by nation states or the proliferation of international organizations. After the World War II the word "institution" was synonymous with formal organizations, mainly the United Nations and its affiliates, which was established as a result of the war. This narrow focus is not surprising, because it was a manifestation of what international relations was about at this specific point in time. Formal organizations are important protagonists in IR for several reasons; they have agency, are able to set the political agenda and have a socializing affect (Simmons & Martin, 2002: 192).

However, history has shown that International organizations (IOs) have not been in focus of IR scholarship at all times. The diminishing importance of formal IOs in the 1970s and increasing interdependence spurred a new interest in more informal settings and international governance more generally. Scholars found the earlier research to be too actor-centered and therefore introduced factors such as 'rules' and understandings to show how these affected state behavior (Ibid: 193).

According to these scholars the normative framework on which an international regime is based, is constituted by principles and norms, while the specific behavior of the participants is inferred by its rules and decision-making procedures (Ibid: 193). Hence, the most commonly used and acknowledged definition of an international regime is the following proposed by Krasner: "International regimes can be defined as sets of implicit or explicit principles, norms, rules, and decision-making procedures around which actor expectations converge in a given issue-area." (Krasner, 1982: 2). In similar vein Keohane & Nye define regimes as "sets of governing arrangements" that "regularize behavior and control its effects." These arrangements include networks of rules, norms, and procedures." (2001: 17).

From the 1930s to the 1970s the dominant paradigm in the field was realism with its main focus on nation states, their (converging) interests and exercise of power in an anarchic world system. Realist scholars looked upon international institutions with disbelief and the institutions were therefore rarely emphasized, and if they were, the state would certainly try to free itself from their constraints. Later, a more comprehensive account of international regimes was formulated stating that international regimes could be established and maintained if there was a hegemon in favor of it. Although today's neorealists have refined their views,

they still maintain that international institutions exist are a reflection of state power and national interests (Simmons & Martin, 2002: 195).

As a response to the question of why governments negotiate agreements, costly in time and other resources, the functionalists argued that regimes would be effective in ensuring mutual benefits because governments would not break the agreements by pursuing short-term interests. Hence, institutions should be regarded as a "solution to the problem of international collective action." Hereafter, it was acknowledged that reality was more complex than hitherto argued. Individuals, it was said, had limited information-processing capacities. Also, notions of "normative expectations" as well as "bounded rationality" were added to the explanation of how the collectivity was behaving, and in the interaction among the actors norms would develop in turn shaping the institution itself (Ibid: 195- 196).

Besides the functionalist perspective there are ideational approaches emphasizing that institutions foster and facilitate learning at the international level. In this vein it is argued that even non-state actors, such as epistemic communities and non-governmental organizations, play an important role in diffusing information and values (Ibid: 199-200).

The major criticism to the above theoretical approaches has come from the social constructivists, who have challenged the concepts of primacy of anarchy and pre-determined interests. Their aim has been to underline the importance of the social context in which international institutions are situated. These scholars have emphasized that an international society is crucial in upholding an international order, and in order to get a satisfactory view the underlying social and political processes should be the primary analytical objects (Ibid: 197-198).

Contemporary constructivists are highly critical of the traditional approaches, which, based on a positivist epistemology, claim to explain subjective ideas such as beliefs and norms. What is required in order to catch the intersubjective meanings of the interaction taking place in international relations, they argue, is to use an interpretative epistemology (Ibid). Also, ideas about institutions and interests being mutually constitutive have been included in the discourse (Ibid: 198).

From these polarized discussions new theoretical developments have emerged aiming to show the complexity of international relations, undertaking either a more process-oriented approach or seeking to bridge the two positions. (Ibid: 205).

2.3 Emphasizing Process

"What matters is process". With these words Ernst Haas (1982: 57) expressed that in order to capture the complex nature of regimes a focus on political processes was necessary: "In short, we must focus on the notion of process in dealing with the question of how regimes actually work, how collaboration is carried out." (Ibid: 29). Since then other scholars with differing perspectives have

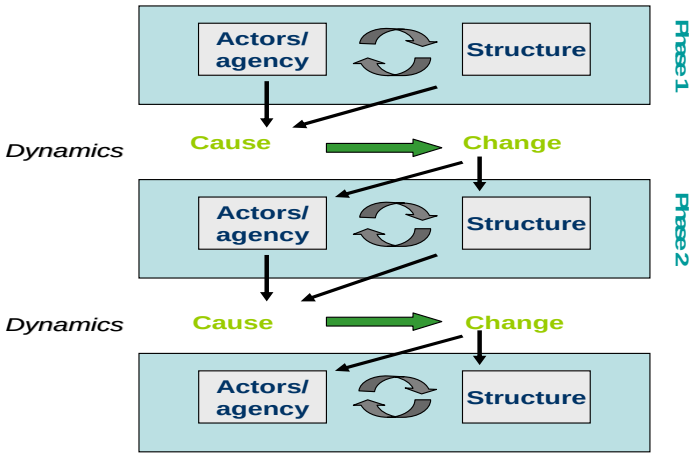
seconded this notion. In Christer Jönsson's view the traditional approaches to regime studies are not adequate as they are too static to explain a process. In his study on the evolution of the international aviation regime he outlines a process model of regimes with focus on the bargaining processes and coalition-building and the context in which they happen. Herein it is the bureaucrats who are disseminating information in informal networks and taking part in bargaining which is taking place at multiple levels (1987: 57-76).

These perspectives are, however, at this point not adequate in explaining the Internet governance regime because the bargaining perspective has a narrow focus on bureaucrats and informal networks. The approach I undertake has a broader reach. Using the structurational perspective allows me to accentuate the importance of the Internet technology in the evolution of this complex regime as well as making a comprehensive historical outline taking into account all the main stakeholder groups.

As mentioned earlier, the topic of Internet governance is new with a limited amount of sources, which are not able to explain the informal dynamics in depth. These dynamics are therefore best illuminated by conceptualizing structure and agents as mutually constitutive, which in turn, is one of the premises of the structuration theory (Wendt, 1987: 337-339).

Structuration, according to Anthony Giddens, is a social process that implies the mutual interaction between human agents and the surrounding environment, meaning that actors affect structures while also being affected by them. Hereby, structures only exist through human agency, enabling or constraining the individual's ability for action, in different situations, at different times (Giddens, 1979: 64- 65). Another central premise is that actors are "knowledgeable" and reflexive (Ibid, 1984: 5). Through the action of the knowledgeable and reflexive actor patterns of interaction are created developing into standardized praxis. These institutionalized practices, or "structural properties", become part of the agency, in turn, amplifying the structural properties. Hence, the process is dialectic and reinforcing. This is what Giddens calls "the duality of structure" (Ibid: 25). Figure 1 is an illustration of how the process of structuration can be depicted, and forms the basis for my analysis of the Internet governance regime.

Figure 1



2.4 Process and Technology

Building on the ideas of structuration Wanda Orlikowski argues that it is necessary to revise the concept of technology by undertaking a dialectic approach in order to achieve a more complete picture of the interaction between organizations and technology because earlier models and definitions are too deterministic in viewing technology as either an objective external power or as an effect of human social action and strategic choices (1992: 398).

Orlikowski defines information and communication technology in a two-dimensional manner embracing both the material nature of ICTs (scope) and role they play including human activities that are designing and/or using them. Hereby keeping a theoretical distinction between nature and use (Ibid: 403). This definition hereby becomes applicable to the structurational approach undertaken and can be used as theoretical ground in organizational contexts.

Through action and in interaction with the surroundings (in the organization) the reflexive actor creates patterns which are institutionalized and thus become inherent to the organization's formal and informal practices, norms, and rules – In Anthony Giddens terms establishing the "structural properties" of the organization. These structural properties then become part of the interaction between the actors, creating new structural patterns, again (Ibid: 404).

The first premise of Orlikowski's structurational model of technology is the duality of technology, which means that technology is created and changed by human action at the same time as it has to be used by people in order to produce action:

"Technology is the product of human action, while it also assumes structural properties (…) However, it is also the case that once developed and deployed, technology tends to become reified and institutionalized, losing its connection with the human agents that constructed it or gave it meaning, and it appears to be part of the objective, structural properties of the organization." (Orlikowski: 406).

The second premise is that technology is "interpretatively flexible" implying that the interaction between the human and the organization is the added result of people's actions and the socio-historical contexts, of which the technological development and use are part. Attempting to understand technology as both a social and a physical construct, human action can be divided into two categories: one that affects technology (design mode) and one which is affected by technology (use mode). While the technology is used by the actor it is being interpreted, manipulated and acquired at the same time as the actor is influenced by different factors: *"[E]ven the most "black box" technology has to be apprehended and activated by human agency to be effectual, and in such interaction users shape technology and its effects." (Ibid: 408).*

The interpretative flexibility of technology has its limits stemming from its physical properties and institutional context. Nevertheless, in the process of ICTs becoming part of people's daily lives an increasing number of users will acquire more knowledge about the technology, in turn these new users will create new structural changes (Ibid: 408-409).

Technology has different degrees of interpretative flexibility according to where, when and by whom it is used, as well as by whom and when it has been constructed. The contemporary high-speed development of information and communication technologies has produced changes in organizational structures and thereby the possibility for the actor to transform the organization. The main reason for this is that ICTs have a higher flexibility for interpretation than other technologies (Ibid: 421). Thus, the Internet, because of its specific nature, is highly interpretative and can be formed into a power resource.

2.5 Power and Technology

Orlikowski's structurational interpretation of technology and society, which takes into account the duality of technology is in line with J P Singh's conceptualization of power and technology (2002: 10-12). Hereby both perspectives acknowledge that technology is more than just a working tool and the main physical infrastructure of today's society. Technology and especially the new ICTs with their substantial interpretitative flexibility have altered and transformed how people interact as well as how politics is conducted thereby altering power relations.

Power is one of the oldest issues in discussions on international relations and still today it is acknowledged that politics is about power relations, although the nature and role of it power is heavily debated (Baldwin, 2002:177-188).

The conceptualization of power, which constitutes the basis for the analysis of this study, is wide-ranging taking into account different types of power. This is important to the analysis because it is a perspective that best captures the inherent qualities of new information technology and its importance to society, hereby creating an opening to an analysis based on the power of technology in general and the Internet in particular.

According to J.P. Singh, power in its simplest form means "who does what to whom". In other words it may imply, on the one hand, the ones who are empowered and on the other hand those who are disempowered – the so-called instrumental power. Then there is the structural power entailing, on the one side, those who are writing the rules and on the other side those facing constraints in doing so. Instrumental and structural power both entails the issue of capabilities. Yet, while instrumental power is defined as the *"the capacity or capability of power holders to [a]ffect particular outcomes."* structural power means the ability to shape the rules and institutions, which are governing these outcomes. The definition of structural power then deals with how particular activities are constrained by or appropriate to certain institutions. Structural power may also involve the ability to change institutions rather than the idea of empowerment. Singh adds another dimension to the concept of power what he calls meta-power meaning *"how basic identities, interests and issues themselves are reconstituted or transformed in particular historical contexts, in turn redefining other relations of power."* (ibid, 2002: 6-7, 10).

By taking the third kind of power into account the significance of technology to our society becomes even more apparent:

"[N]etworked interaction itself constitutes actors and issues in global politics. If we merely focus on actor capabilities and take their identities and interests as given (…) the transformation being brought about by information networks is missed. Meta-power thus refers to how networks reconfigure, constitute, or reconstitute identities, interests, and institutions.", and "as ideas interests and institutions are reconstituted, power shifts away from the original power holders. The very nature of power itself and the actors who wield it is also changed." (Singh, 2002: 12-13).

2.6 The Power of Technology

In the 21st century, information technology broadly defined is likely to be the most crucial power resource (Keohane & Nye, 2002: 169).

One of the first approaches by which information and communication technology was studied in relation to power involved its instrumental form. Here technology was perceived as enhancing power capabilities of traditional actors in the international arena, such as the state and the business sector, but also those of transnational social movements and terrorist groups (Singh, 2002: 7).

In the beginning the impact of technology on power was conceptualized in economic terms concerning monopoly power over the American telecommunication infrastructure in the 1940s. Promptly, economic issues were followed by national security matters in the 1960s when power was linked to the development of national prosperity through the proliferation of information and communication infrastructures, which in the 1980s was perceived, by most world governments, as crucial to the development of society – especially in economic terms. By now, traditional issues of political change and security are, maybe not surprisingly, integrated in the discourse of technology and power. The state-centered view of national security can be complemented by the fact that information technologies and networks have had an important impact on democratization processes around the world (Ibid: 7-9).

Conceptions of security have changed, which illustrates the importance of technology. First, ICTs have been set up to increase capabilities in the entire realm of security and defense ranging from simple organizational tasks to the construction of highly technological weapons. Second, the importance of protecting national information infrastructures against threats has become an imperative in security matters of states and much focus of scholars in the area of instrumental power has been the enhancement of capabilities in protecting these infrastructures (Ibid: 8). According to Deibert, the primary object of security is the network itself, and the primary threat of the Internet is the potential for systems crash, loss, theft or corruption of data, and interruption of information flows (Deibert, 2002: 131).

Information technology has profoundly changed the way in which instrumental power is analyzed. Most importantly it has driven the questioning of state-centrism forward in that it has now become essential to look beyond the traditional actors of the international system, the state and the private sector: *"state capabilities are no longer dependent (…) on merely using these technologies, but also from working in concert with a host of actors in enhancing their power." (Singh, 2002: 10).*

The empowerment of non-state actors, both the ones conducive to the western liberal values and those fighting against them is important for the state to consider because it challenges the notion of state supremacy and is threatening its security (Ibid).

In terms of technology's relation to structural power it has also been viewed from the perspective of state actors and as argued above it still is. Nevertheless, just as in the case of the idea of instrumental power, information technologies have brought about other angles on the subject. Information, knowledge and ideas are important factors in shaping rules and institutions that are affecting structural outcomes. Three notions of the relationship between technology and structural power is identified in the theoretical debate: one where technology shapes structures or institutions, i.e. in security or economical matters, and another that stresses the impact (constraining or enabling) of existing structures or institutions on the use of technology, and a third emphasizing the mutual interaction of institutions and technology and how they affect each other (Ibid: 10-12).

What is special about the idea of meta-power and how does it facilitate the understanding of technology and power? Distinguishing from the notions of instrumental and structural power that accentuate how technology affects issues and enable or constrain actors, meta-power indicates that "networked interaction itself constitutes actors and issues in global politics." Meta-power is then seen as an interactive phenomenon in itself, implying "how networks reconfigure, constitute, or reconstitute identities ideas, interests and institutions." (Singh, 2002: 13). Moreover, it is argued that as this reconfiguration is happening, power is transferred from original sources of authority to new ones. In this way the very nature of power itself and the actors who exercise it are also changed. Hereby, when a state's self-image is transformed, the perceived national interest also changes. Taking into consideration the notion of meta-power allows us to see the grand transformation that information networks have produced (Ibid: 14).

This constructivist perspective is relatively new to the mainstream IR discourse and includes several theoretical strands sharing the idea that interest and identity formation is intersubjective and endogenous to the context in which it is formed. This is in contrast to the rationalist-behavioral tradition, according to which interest and identity are exogenous. Moreover a clear focus is placed on process in which the societal changes are happening. This perspective allows for the conceptualization of meta-power and illustrates a link between information networks and identity formation: *"The collective meanings that actors hold about themselves, or meanings imposed upon them, are shaped by networks and in turn influence networks. But the constitution and effects of such identity formation remain contested by scholars."* (Ibid: 14-15). Hereby, the instrumental properties

of technology are combined with the constructivist ideas that information technologies on the one hand are shaping social contexts in the sense that new discourses are formed (security, human rights etc.), and on the other hand different actors in the arena of global politics are empowered or disempowered (Litfin, 2002: 65). The strongest proponents of the constructivist viewpoint reject the idea that meta-power is simply complementary to traditional forms of power. Instead they emphasize that this notion of power is replacing old forms of authority. However, as argued by Singh instrumental and structural views of power, which are based on capabilities, have to be taken into account for a fuller understanding of the relationship – even in what he calls "transformatory societal processes" (Singh: 18). Moreover, the profound societal changes networks and technologies have brought about have not come out of the blue. They are rooted in historical events and are hereby also emerging from traditional power relations based on territory and the notion of sovereignty including laws, rules and other formal and informal institutions (Keohane & Nye, 1998: 82). As the above discussion indicates, the effects of the ICTs and the information revolution are lively debated (Singh, 2002: 26). It hereby is evident that new technologies are affecting politics and power relations, and that they do so in many ways.

3 Internet Governance – in Theory and Practice

Before telling the story of the evolution of the Internet governance regime, a definition of what the Internet technology actually is in its place: *"An internet (…) operates like a single network connecting many computers of any size and type. Internally, an internet (or, more specifically the Internet [a global internet]) is an interconnection of independent physical networks (…) linked together by internet-working devices"* (Forouzan, 2001: 705). Simplified it consists of the physical infrastructure of the Internet, the TCP/IP, protocol and the Domain name system (DNS) as well as various applications running on top the TCP/IP such as the World Wide Web (WWW) (Farrel, 2006: 212-213), or in the words of Castells, who see the Internet of today as a *"global network of computer networks made user-friendly by the World Wide Web, an application running on top of the Internet."* (Castells, 2001: 9).

3.1 Defining Internet Governance

Defining Internet governance is an important first step in understanding the evolving regime on the Internet. Internet governance is a contested subject and concept (MacLean, 2004; Mueller et. al., 2004; Drake, 2004) and implies that there is no consensus about the main issues to be included or the institutions to be implicated in it (Drake, 2004: 1). The highly polarized debate and discourse reflects the perceived meaning of the two concepts – alone and together, which means the different views of what "governance" is supposed to mean, on the one hand, and the history and nature of the Internet on the other hand.

The term governance is commonly used by scholars in international relations and social sciences in general. Traditionally, governance has been perceived as either being equivalent to the narrow concept of government in the context of the nation state or more broadly understood in relation to authority at all societal levels, from the unit of the family to the corporate level further up to the global polity (Ibid, 2004: 2). In the field of international relations, the meaning of governance developed in the context of increasing interdependence in the era of globalization. It became clear that political boundaries were no longer the satisfactory adjudication field in the effective decision-making and problem-solving of issues with global character. The notion of governance also ceased to be state-centric as national governments no longer were the only actors in the playing field. Other actors, i.e. international organizations, civil society and

businesses, came to the fore requiring a part in global decision-making (Mueller et. al., 2004: 4). In the words of Keohane and Nye Internet governance is "the processes and institutions, both formal and informal that guide and restrain the collective activities of a group. Government is the subset that acts with authority and creates formal obligations. Governance need not necessarily be conducted exclusively by governments and the institutional organizations to which they delegate authority. Private firms, associations of firms, non-governmental organizations (NGOs), and associations of NGOs all engage in it, often together with governmental bodies, to create governance; sometimes without governmental authority." (Keohane & Nye, 2000: 12).

A commonly used analogy derived from the steering of a ship is "steering not rowing". The action of steering signifies the "people, structures, and processes that establish general goals for the system and guide the "rowers" [i.e. the government] toward these goals, setting the tempo and changing the course as necessary" (MacLean, 2004: 6). As the above analogy entails governance may take different forms. It may be shaped by bottom-up or top-down processes, as well as being mechanisms or tools that range from "hard" forms of governance such as laws and regulations to the "softer" ones such as non-binding standards and voluntary cooperation. Moreover governance can take place at different societal levels (Ibid, 2004: 7; Mueller et. al., 2004: 4). In this respect, the contemporary notion of governance is seen as a generic idea that is neutral with respect to origins and institutional form and is furthermore process oriented. Following this line of thought governance is present when rules and procedures are collectively recognized shaping social actors' expectations, practices, and interactions in some sphere of human affairs. Governance, broadly defined, embraces the different dimensions of the realm of the Internet, which are crucial in understanding the process of Internet governance (Drake, 2004: 2-3).

According to MacLean the exercise of finding a workable definition is determinant of a successful evolution of the regime (MacLean, 2004: 2) The importance of a working definition of the Internet is illustrated in that it was the first task to be undertaken by UN Secretary General Kofi Annan's working group on Internet Governance (WGIG).

Several definitions were presented at different workshops on Internet governance in the aftermath of the WSIS I held in Geneva 2003 but consensus could not be achieved. However, the definition proposed by the WGIG in 2004 was agreed upon by the participating governments at the WSIS II in Tunis 2005 and sound as follows: *"Internet governance is the development and application of governments, private sector, and civil society, in their respective roles, of shared principles, norms, rules, and decision-making procedures and programmes that shape the evolution and use of the Internet."* (WSIS, 2005: 75; WGIG, 2005).

Furthermore, it is argued that ICT governance comes from the negotiations taking place between four different societal sectors; government, the private sector, research and development, and civil society, also called the 'quad' (Wilson III, 2005). This is an over-simplification, but I find this ideal-type division of the implicated actors to be helpful in identifying the important actors of the process.

3.1.1 Three Perspectives

There is no consensus of what constitutes the Internet and the ways in which it is similar to or different from other electronic networks. It is important to outline these conflicting opinions because they condition the different perspectives on the relationship between the Internet, governance, and the normative aspects of Internet governance (MacLean, 2004: 4).

The traditional Internet view originates from the inside of the Internet community – also called the "netheads". In their view the Internet is different from other electronic information communication networks, such as telecommunications and broadcasting. It is a network of networks which rather than being centrally controlled must be controlled from the periphery by its users. This network is inherently different in its technology, design, capability, control, and economics. Yet there are features of the Internet that should be governed. However, because of its unique nature the governance mechanisms and institutions should not take the form as the ones regulating the other networks. The most important parts to be managed are the numbering and address systems and technical standards (Drake, 2004: 4).

The traditional telecommunications/broadcasting/media perspective is to be found among, as the name indicates, the traditional info/com media, which now are subject to competition from Internet based service providers. Yet, this view is also supported by developing countries and regions keen on protecting the existing infrastructure and services in order to preserve universal and affordable access to basic communications facilities. Proponents of this view often have a different opinion about the relationship between government and the private sector as well as the question of consumer and social welfare than the "netheads" (MacLean, 2004: 4).

According to the network transformation perspective the Internet and its governance is viewed more holistically. The development of governance mechanisms and institutions for the Internet is not perceived as unique. Historically, the development of communication and information technologies, such as the telegraph, telephone, wireless and television broadcasting did not emerge as a centrally controlled network. It was the need to standardize these different systems making them interoperable that was one of the main reasons for the establishment of governance arrangements on the national, regional and global levels – a picture similar to today's Internet. In earlier periods of technical developments of communication and information networks there was one type of service attached to the network, i.e. telephony. This scenario has changed substantially in that the new IP-based technologies to which traditional public switched telephone systems are slowly being transferred and potentially integrating "older" technologies of telecommunications, broadcasting and other media functions. In this perspective the traditional network structures will be integrated with the new emerging ones creating a mix of networks controlled by central authorities and users. Hereby the traditional technology will coexist with the new technological developments in an all-pervading network connecting

almost all kinds of networks (mobile, broadband etc.) into a web of systems able to communicate with each other. (MacLean, 2004: 5; see also Schulzrinne, 1999).

From perspectives of the Internet three contemporary positions on how the network should be governed have emerged in parallel. The first relates to the traditional view and is articulated by the business-sector and the Internet community writ large, including organizations such as the Internet Society (ISOC) and the Internet Corporation for Assigned Names and Numbers (ICANN). Accordingly, the guiding norms of regulating the Net should be vested in soft forms of governance like the ones already in place, through self-regulation and policy coordination, instead of hard laws and regulations. Three areas should be subject to regulation: technical standardization, management of the address and domain name systems and some service related issues (Ibid: 9).

Secondly, the telecommunications perspective supported by most developing countries emphasizes the need for an encompassing set of governance mechanisms, both already established and new ones, in order to govern many different issues ranging from the technical realm to public policy concerns. Herein lays the call for a deeper involvement for the International Telecommunication Union (ITU) in the control of Internet addressing and domain name systems, as well as an overall amendment of the existing treaties of the international framework, which regulates telecommunication at the international level. Moreover, the operation and access to the Internet should be secured by development assistance programs and should be governed according to the existing regulations on traditional telecommunications (Ibid: 9).

The third view is focused on the transformation of the technology currently taking place. Accordingly, the change from the traditional to the IP-based networks and the integration of all kinds of information and communications into the future all-encompassing network has triggered the need to re-think the entire paradigm in order for the regulating mechanisms to grasp these transformations (Ibid).

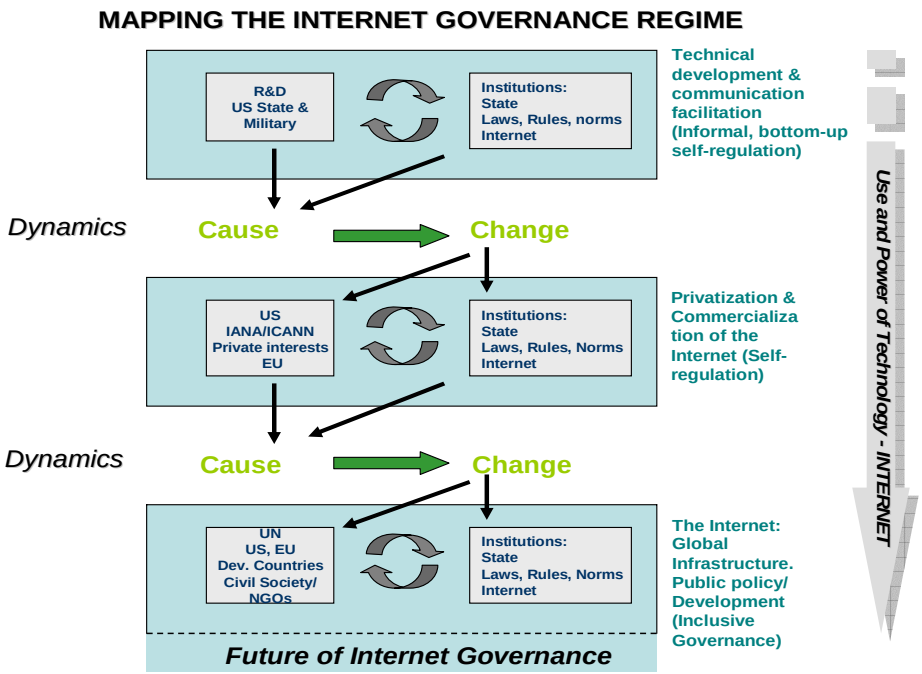
3.2 Governing the Internet – The Evolution of a Regime

The events that led to the formation of the contemporary Internet are important in understanding the underlying debate about internet governance: “the historical production of a given technology [that] shapes its content and uses in ways that last beyond its original inception, and the Internet is no exception to this rule.” (Castells, 2001: 9).

Embarking on an analysis of the Internet governance regime is not a simple task. The Internet is a complex phenomenon and the normative questions of how it should be governed vary. Figure 2 (below), depicts the Internet governance regime as an open-ended process (marked by the dotted line of the phase 3 box). It

is based on the structurational approach and illustrates the dynamics that constitutes the regime in the course of its existence. These dynamics, which have been brought about as a result of the interplay between actors and structures, have all contributed to the regime's evolution and the changes in the norms and the principles of its regulation. Moreover, the figure illustrates that the power and impact of the Internet technology and the Internet as one of society's main infrastructures has driven forward the regime.

Figure 2



3.2.1 Communication Facilitation and Technical Development

The origin of the Internet is to be found in the historical context of the rivalry between the world's two superpowers, the United States and the Soviet Union in the midst of the Cold War. The Advanced Research Projects Agency (ARPA) was formed in 1958 by the Defense Department of the United States in order to start the gathering of resources for research, which would make the US superior in military terms. Accordingly, the computer network ARPANET was set up in 1969 as a small program by one of ARPA's departments. The aim was to augment research in interactive computing in order to facilitate the exchange of information and the sharing of limited resources between the different institutions taking part in the organization's projects. The ARPANET hereby became the on-

line connection by which the different computer centers and research communities could communicate and share information. This computer network was based on a ground-breaking new technology called packet switching[2] developed by Paul Baran at the Rand Corporation, a think tank working for the Pentagon, and by Donald Davies at the British National Physical laboratory. In 1969, the first nodes of the network were some of the largest universities and research centers in the United States. Already, in 1971, there were 15 nodes. The implementation was carried out by an engineering firm established by MIT professors and consisting of scientists and engineers from MIT and Harvard. A year later the first demonstration of the system was accomplished.

In 1973, Robert Kahn from ARPA and Vint Cerf, then at Stanford University, outlined the basic framework of the Internet. It was based on the work of the Networking Working Group, a technical group consisting of representatives, among others Vint Cerf, Steve Crocker and Jon Postel, from various computer centers in the ARPANET network. At this point a standardized communication protocol was necessary for the computer networks to talk to each other and thus the transmission control protocol (TCP) was designed. In 1978 Cerf, Crocker and Postel, all graduate students now working at the same university, decided to add an inter-network protocol (IP), forming the TCP/IP Protocol, which still today is the operating standard of the Internet (Castells, 2001: 9-12; Slevin, 2000: 28-34).

The ARPANET had at the time been transferred to the US Defense Communication Agency. By connecting the different networks under its control the DCA established a Defense Data Network based on the TCP/IP protocol intended to make computer communication available to other military branches. In the 1980s the Department was concerned about the security and created a separate military network, MILNET. Based on the ARPA-INTERNET, the US National Science Foundation (NSF) created its own network, NSFNET, and decommissioned ARPANET. The NSF was charged with the future management of the Internet after its separation from the military realm and the Net was to be used for educational and research purposes only. Yet, commercial use of the technology was allowed on a local and regional level making profits in order to lower subscription fees for smaller academic institutions, in turn spurring competition from private networks (Ibid).

The Defense Department decided to commercialize the Internet technology by paying American computer manufacturers to include TCP/IP in their protocols and in the 1990s most computers in the US had network functionality. The rapid expansion of the Internet became possible because of the original, multi-layered, decentralized architecture of the ARPANET and its open-ended protocols. Another decisive factor in the shaping the Internet to its current form stems from the culture of the computer networking community that from the beginning consisted of computer scientists as well as individual hackers, continuously altering the technology in order to make its application universal, linking the

[2] See Farrel, 2006: 212 for a short explanation. For a more comprehensive understanding see Forouzan, 2001: ch.14.

world together with the computer network infrastructure. The idea of making all information about the software systems accessible to all and making it open to alterations, the so-called “open source movement”, greatly impacted the development of the Internet and other applications (Castells, 2001: 12-14).

The development of a protocol allowing for the exchange of information between computers took place over normal telephone lines and laid the basic ground for the proliferation of communication across networks, starting with electronic message boards and discussion forums. The development of the World Wide Web (WWW) was the main factor in making the Internet a worldwide phenomenon (Slevin, 2000 37-39).

3.2.2 Rough Consensus and Best Practices

Even though the funding of the Internet’s development had come from the United State’s government its effective operation was run by a small insider-group of Internet users and experts, who would discuss standards and policy issues in different relevant forums (Farrel, 2006; 213).

In the early 1990s, Vinton Cerf and his colleagues started to seriously institutionalize their accomplishments by creating institutions and specific working methods with the purpose of preserving the inherent values of the Internet. The important task of achieving common standards was the main purpose of the Internet Engineering Task Force (IETF) that was established by and for the Internet engineers. In practice this institution consisted of a series of meetings between the engineers who discussed future standards of the Internet. This has however been characterized as the beginning of a different and bottom-up governance through discussion, argument and consensus, and “deliberative democracy in action”. In the words of one of the founders, Dave Clark: “We reject: kings, presidents, and voting. We believe in: rough consensus and running code.” (Clark cited in Goldsmith & Wu, 2006: 24). In this manner, when solutions on difficult problems was to be found decisions was made on the basis of discussions of best practices in the practical implementation of the technology. The IETF could hereby be seen as the first informal governance system established to formalize the rules of the game and thereby also the design of the design of the network (Goldsmith & Wu, 2006: 24-25).

For many years the ultimate authority of the assignment of one the most essential features of the Internet, the Internet Protocol numbers (i.e. 128.143.28.135) was Internet engineer Jon Postel. Each computer in the Internet network is identified by a unique number (an Internet Address) essentially determining the computers ability to communicate on the Internet and thus someone has to take decisions on who gets what number and how many. Furthermore the domain name system and root files have to be administered, also entailing a certain amount of centralized power. A domain name is the translation of the numeric to a language understandable and memorable by people, examples are google.com and europa.eu. It may seem technical, but making these decisions

is of great importance and highly politicized (Farrel, 2006, 211-112; Goldsmith & Wu, 2006; 30-32).

One of the most highlighted issues has been the ownership of the globally unique domain names, which have become big business and the most valuable ones are worth millions of dollars, crossing into issues of property rights. Also, the system itself is worth billions in revenues from electronic commerce and may as well be a powerful means to shape the form of the Internet itself. Having the power to control who is in and who is out is useful in order to make people follow your rules. If one chooses a domain name which includes an already registered trademark, a complaint to the Internet naming authority will directly, without a court case, result in the loss of the particular domain name. This kind of enforcement could in a future scenario result in individuals, firms as well as states to be cut off an IP address, domain name or even the membership. The root authority takes decisions on behalf of all Internet users in the world, and the power may arise from different sources such as legal authority but even from having (successfully) administrated the network. As will be clear to the reader the latter was long the case in reality (Goldsmith & Wu, 2006; 31-32).

Postel and the other founders saw themselves, being the inventors and experts, as the actual authority of the Internet. For many years they had the daily control and responsibility for the operability of the Net. It was Postel who alone was responsible for building and making the naming and numbering system work and in the mid-1980s the contemporary domain name system was in place. Postel's effective, fair and apolitical policy-making and service gave him the legitimacy to be the system's authority and the fact that the group did not have the legal right to govern the Internet was usually ignored. The development of the Internet had until then been funded by the US government and its management had been contracted out to the Stanford Research Institute (SRI) through a defense contract, which in turn was in cooperation with Postel and his employer University of Southern California. This special position was to change when SRI's contract expired (Ibid: 29-34).

Until then, there had not been a need for much direct government regulation as the consensual policy-making was working effectively (Farrel, 2006). The US government, which had been quiet on the sideline started to make itself heard in the end of the 1980s when it initiated reforms of the state bureaucracy. Hence, the Defense Department opened most contracts to commercial bidding. A giant defense contractor, Government Systems Inc. won the bid and quickly outsourced the administration of the root to Network Solutions Inc., a small and unknown firm. For the first time, and crucial for the future development of the Internet governance regime a for-profit company was in charge of parts of the Internet's administration This meant that Network Solutions Inc. now had the supervision over the physical root server (Goldsmith & Wu, 2006: 35).

Once the technology had entered the public realm, the NSF started the process of privatizing (the private operation of) the Net, and closed down in 1995. The process was further intensified with the ongoing deregulation of other telecommunications (Castells, 2001: 9-12; Slevin, 2000: 28-34).

3.2.3 Commercialization and Self-Regulation

With the commercialization of the Internet and the right to charge money for the registration of applicants changes in the previous informal governance structures came to the fore (Goldsmith & Wu, 2006; Wilson III, 2005; Farrel, 2006).

In the late 1990s Network Solutions had registered millions of domain names making over 200 million dollars in revenues and soon realized its monopoly position was worth fighting for. In the eyes of the engineers seemed greedy and arrogant. In 1998, when the scheduled expiration of Internet Solutions' contract was to end, the Internet founders, through the ISOC, together with trademark owners formed the International Ad Hoc Committee (IAHC) not only to provide an alternative to the company's power but also to gain independence from the United States government. In the words of founder Vinton Cerf: *"My bias is to try to treat all of this as a global manner and to settle the responsibility on the Internet Society as a non-governmental agent serving the community* (Cerf cited in Goldsmith & Wu, 2006: 38). Although, according to Milton Mueller, it was an attempt to self-privatize the Net. The group started to set up a more formalized structure for a future naming and numbering authority and the plan became known as the "Generic Top-Level Domain Memorandum of Understanding" (gTLD-MoU). It was formed like a legal document, similar to a UN resolution and included renowned intergovernmental organizations, such as the International Telecom Union (ITU) and the World International Property Organization (WIPO) (Goldsmith & Wu, 2006: 35-40).

Later their so called "Internet Constitution was released stating that:

"We the people of the Internet Community, in order to promote more complete interoperability of the individual Networks that constitute the Internet, insure harmonious relations between the various networks that constitute the Internet, and to secure the Blessings of Liberty to all the Networks that constitute the Internet, do ordain and establish this Constitution" (cited in Goldsmith & Wu, 2006: 40).

The serious mobilization of organizations and resources in supporting the process of transferring the authority of the Internet naming system from Network Solutions to the Internet Society did not include national governments. By not inviting government representatives to the signing ceremony in Geneva the group clearly marked the dominant beliefs among the Internet community and had with the gTLD-MoU informally given them selves the right to set Internet policies outside the realm of the US government. The government, however, did not let this go unnoticed. The Administration's belief was that the ultimate policy-making authority over Internet policies, including the naming and numbering system was with the United States, who had funded the Internet under its auspices (Goldsmith & Wu, 2006: 40-41). While they did not believe that the Internet could be run in an enough safe and stable manner by an international organization outside the reach of the United States, they still had great respect for the ability of the experts to run the Internet effectively on a daily basis. Moreover, they feared that the involvement of the International Telecomunnication Union (ITU) under

the auspices of the United Nations would lead member governments in Europe or elsewhere to start influencing Internet policies.

The freedom inherent to the technology, which allowed all communication to flow around obstacles in the network, led the libertarians to believe that through this new medium people would be protected against the interference of government authorities. The group found support in the e-commerce sector, which was afraid that government regulation would hold back the rapid growing economy of e-commerce and was to a large extent able to influence the US officials support rules based on self-regulatory policies. Already in 1994, Ira Magaziner, the main Internet and e-commerce policy maker in the Clinton-administration, had told President Clinton that commercialization of the Net would be a great boost to the economy, and should be a high-priority issue. Magaziner together with businesses and privacy advocates succeeded in promoting self-regulation on the background of rumors about the Internet being under the control of state agencies like the Federal Communication Commission as well as ideas coming from Europe about taxation schemes. Magaziner was convinced that centralized regulation would kill e-commerce and crucial elements such as predictability and security would be jeopardized - a concern uttered both by big business and the Department of Defense (Farrell, 2006: 214; Goldsmith & Wu, 2006: 40-41).

In 1997, the US government issued the "Framework for Global Electronic Commerce - a policy document which celebrated the success of the Net and the self-regulatory governance. Hereby the industry had been able to effectively lobby the politicians, who allowed it to regulate itself and to voluntarily uphold market-driven standards. It is argued that this extensive government support of self-regulation was pushed for because it would hinder other states' efforts to introduce regulation in cyberspace, which they had tried before, as well as binding rules by international organizations promoting strict global controls (Farrell, 2006: 214-115; Goldsmith & Wu, 2006: 41-42).

3.2.4 The Transatlantic Dispute and the Establishment of ICANN

The late 1990s also revealed a transatlantic dispute on Internet regulation and whether to make more comprehensive international agreements. The European Union in particular but also other states were interested in tightening the rules on privacy protection, the US, however, opposed such policy changes. The problem for the US authorities was that the Internet industry did not comply with their self-imposed rules, which led to European decision-makers expressing their concern about their citizens' privacy being violated by American firms able to acquire personal information, outside the Union's jurisdiction. The US response on EU pressure was to set up programs for better privacy protection and threatened to introduce legislation unless the industry took their commitment seriously – measures which seemingly had a substantial effect (Farrel, 2006: 215).

The pressure from the EU for the US government to introduce more formal rules on privacy issues can be said to have had some impact on the development

of governance structures. However, in an international context, the greater controversy was over the assignment process of domain names, of which the US authorities was in control. They decided on who should have which of the valuable top-level domain names (TLDs). The outside pressure let the US government to issue a paper requesting a formation of a private-sector body, onto which responsibility and authority over the naming and allocation process would be transferred and with which the government would cooperate on future policy-making (Ibid: 216). Thus, the US government, realizing its effective power when blocking the gTLD-MoU initiative, paradoxically changed position with the decision to find an alternative and private root authority (Goldberg & Wu, 2006: 168). The official commitment of the United States government came with the "Green Paper" announcing that it would "*allow the private sector to take leadership for DNS management.*"

Not until the mid 1990s did the Internet become an issue in European politics. In contrast to the American approach, the EU prioritized issues related to the information society in general, however not the Internet. Early on the European Commission struggled with national monopolies over telecommunication, but managed to launch, although under the terms of national Post, Telephone and Telegraph Administrations, a European network. One of the purposes of the network, which was based on a different standard than the TCP/IP, was to avoid IBM dominance on the market. In the wake of the spread of the World Wide Web the Internet (which is based on the TCP/IP protocol) could no longer be kept out of Europe and began to make efforts to catch up with the US (Leib, 2002: 161).

With the commercialization of the Internet the management of Internet addresses and names became highly politicized, as it involves control over resources and standards.

The EU entered the process at the time when the Internet Society and the IANA set up the IAHC. The Commission was, with some exceptions, satisfied with the ITU-backed gTLD-MoU as many of the registrars were based in Europe. Yet, as written above the United States government stopped the plan and started the privatization of the Internet governance structures. However, in the Bonn Ministerial Declaration, the Commision expressed its concerns about the US-centrism of the approach as well as the lack of representation from the European private sector and emphasized the importance of the ITU and WIPO in establishing legitimate and legally based rules. The Commission had to admit that it lacked knowledge about the workings of the technology and quickly began to learn. In 1998 the Commission published two communications calling for Member States attention and inviting the US government to work for a public multilateral framework for global electronic commerce, with the representation of both private and public interests. The principle was that the legal framework for cyberspace should be based on regulations for the "real" world (Ibid: 162-165).

In the second communiqué was the beginning of a comprehensive European policy to Internet governance and acknowledged the importance of the Internet to society: "*The Internet is rapidly becoming the principal infrastructure for electronic communications of all kinds…*" (European Commission cited in Leib, 2006: 165). Moreover, it laid the ground for the EU's official response to the US

government's Green Paper. The list of critical points contained a statement on the neglect of the Joint EU-US Statement on Electronic Commerce of December 1997, which underlined the importance of undertaking international and inclusive approach with stakeholders from around the world. Also, the EU stated its concerns about the US government keeping the over-all jurisdiction over the Internet. In effect this dispute through official documents resulted in a kind of "Internet Governance diplomacy" with establishment of bilateral contacts between the two parties. The Green Paper brought about an increased number of concerns on the future of Internet governance from stakeholders worldwide, also, it became evident that the rapid diffusion of the Internet had made it inappropriate for the US to set the rules alone (Leib, 2002: 165-166).

The Green Paper led to the issuing of the "White Paper" in 1998, which included a revision of the US government's earlier policy statements and set forth an initiative to establish a new private non-profit corporation. The creation of the new organization Internet Corporation for Assigned Names and Numbers, or ICANN, became reality in 1998 when it received a three-year mandate from the IANA. A complete transfer of the mandate happened soon thereafter. Jon Postel (just before his early death) was the one to propose the underlying framework of ICANN, and had from the beginning, in practice, been the Internet Assigned Numbers Authority (IANA) and who with the exponential growth of the Net could not be the legitimate authority any longer (Goldberg & Wu, 2006: 168; Hart & Rolletschek, 2003).

To begin with the structure of ICANN seemed like a realization of the engineers and others who requested bottom-up self-governance, as well as an internationalization of the process. Moreover public actors were given the chance to contribute to the management of the DNS as users of the Internet and Vint Cerf from the Internet Society was appointed chairman of the organization. However, according to the US governmental organizations were only to have advisory functions, and on the contrary, the Internet community did neither get the actual control over ICANN nor the root as ICANN legally still remained under contract to the US Department of Commerce's National Telecommunications and Information Administration (NTIA) and the ownership of the (physical) computer containing the root zone file was still under US-jurisdiction (Goldberg & Wu, 2006: 168-170; Leib, 2002: 166).

The United States government had in the White Paper added a second principle to the process stating that the addressing and naming system not only was to be private but also international. Informing the Member States about the changes the European Commission now seemed satisfied to go on with the process, although, it still had concerns about the lack of governmental representation. Even though the Commission was forced to accept this fact it took the opportunity to gain influence in the new governance arrangements. Firstly, it was underlined that the Commission and the Member States would participate as public actors as well as the major providers of information and services of the Internet. Secondly, the Commission strongly pushed for the establishment of a governmental advisory function. The structure of ICANN came to include the

Governmental Advisory Committee (GAC) – a forum for all public actors such as government officials and international organizations (Leib, 2002: 167-168).

The GAC is in itself a unique construction that is not seen in other places that is when governments give advise to a private organization and in which the governments role get legitimacy from specific paragraphs in the organization's statutes (Ægidius, 2006).

This stage of the regime's development is an illustration of the relative power of the major actors involved. The decision of the United States to set up the new organization as a private not-for-profit corporation under California law (See ICANN,) is a clear example of this. Yet, in the initial board of ICANN three out of nine directors were from Europe – one even a former employee of the Commission. Furthermore, the GAC became reality due to the actors who spoke against US dominance and self-regulation principles of the process. However, the limitation of GAC's competences, again illustrates the strength of the worlds only superpower. In other words, the creation of ICANN as a private non-profit organization can be said to be a result of "government induced self-regulation" (Leib, 2002: 168-169).

An important fact in establishing the EU as a major player in the process has been that the Commission successfully has gained knowledge and taken control over the Internet domain. Not to forget the launch of a European top-level domain name .EU, of which the Commission determines the rules. Overall the EU achieved most of what it could under these asymmetric circumstances: *"The common interest in the stability and the integrity of the Internet unites the EU and the US, but the quarrel about the institutional framework to ensure these goals remains."* (Leib, 2002: 170).

It is argued that despite the views that the Internet should be governed in a self-regulated and internationalized manner and that no nation state alone should be in control of the root, the US government did not plan to let go of its power over a resource so crucial to the economy and society. Moreover, the transfer of the everyday control over the root to a private organization was a strategic way to keep out other governments', efforts to introduce restrictive policies (Goldberg & Wu, 2006: 168-170). Thus, the Department of Commerce's decision to establish ICANN paved the way for state governments to set the rules for ICANN and internet policy in general (Farrell, 2006: 216).

3.2.5 Inclusive Governance & the World Summit on the Information Society

"We are witnessing the emergence of a new paradigm of global society. It is based on networking in the pursuit of common interests, and on prevalence of non-hierarchical, multilateral and multi-stakeholder approaches. The Internet is perhaps the best embodiment of this new model, as well as its most potent tool." (Figueres, 2004: vii).

The intensive dialogue on Internet governance since the creation of ICANN began on the basis of that the issue had a history that only entailed ad-hoc rules on specific areas of the usages of the Internet, and if this was to be the way forward or, on the other hand, if the Internet should have a complete set of formal rules. An important outcome of the debate was that both the EU and the US realized the need for joint and standardized rules for the technical aspects of the Internet, more specifically for the Internet addressing and naming system (Ægidius, 2006).

In 1998 it was suggested by the ITU to hold a World Summit on the Information Society (WSIS) and three years later, in 2001, the decision was taken to convene the WSIS in two phases, the first in Geneva, December 2003 and the second in Tunis, November 2005. Soon thereafter a resolution from the General Assembly approved the proposal. The resolution recommended the creation of a Preparatory Committee, which in an open-ended manner was to define the agenda and formalize the draft of the Declaration of Principles and the draft Plan of Action. The ITU was to manage the preparatory stage and invited national governments to actively participate in the process (http://www.icann.org/wsis/wsis-igf.html).

Simultaneously, a group of individuals of different ICANN stakeholders started the WSIS Working Group with the purpose of raising awareness of the Summit process and other ICANN-related matters. Based on the ICANN norms of bottom-up, consensus-based global participation, the Group organized (and still does) workshops to "inform and to foster dialogue and understanding on the issue between different stakeholders as well as enhancing stakeholder participation (http://www.icann.org/wsis/wsis-igf.html).

At the Geneva Summit two documents were adopted: the Declaration of Principles and the Plan of Action, underlining the importance of inclusiveness and the wider goals of achieving global development (WSIS Outcome Documents). After the Summit, Kofi Annan announced the founding of the Working Group on Internet Governance (WGIG) that in Geneva had been asked to prepare the ground for a joint decision on Internet governance in Tunis. The Group was asked to first develop a working definition of Internet governance, then to identify related public policy issues and third to develop common understanding of all the different stakeholders groups in both the developed and developing world (http://www.icann.org/wsis/wsis-igf.html). In accordance with the principles of inclusiveness of the WSIS process the Working Group consisted of 40 members from all over the world representing national governments, the private sector and civil society.

Just before the Summit in Tunis, the European Union announced a controversial proposal to shift domain name governance from ICANN and the US Commerce Department to an intergovernmental institution, such as the ITU under the auspices of the UN, which was in line with the position of India and Brazil and other developing countries. Together they threatened, although vaguely, to

split the root[3]. The US, however, could not accept a UN take-over and in the at the Tunis Summit the EU agreed to keep the naming and numbering authority with ICANN under US jurisdiction, if the US would approve the creation of a new Internet Governance Forum (IGF), which was to start a policy dialogue between all stakeholders. (Goldsmith & Wu, 2006: 171; Ægidius, 2006). The new Internet Governance Forum will hold its first meeting in Athens later this year where Internet-related issues with regard to openness, security, diversity and access are on the agenda (http://www.icann.org/wsis/wsis-igf.html).

Despite that the US government and the Department of Commerce, in 1998 promised to hand over the root authority by the fall of 2006, this will not happen, as the US with the following statement, shortly before the second phase of the WSIS in Tunis, changed its position:

> "Given the Internet's importance to the world's economy, it is essential that the underlying DNS of the Internet remain stable and secure. As such the United States is committed to taking no action that would have the potential to adversely impact the effective and efficient operation of the DNS and will therefore maintain its historic role in authorizing changes or modifications to the authoritative root file." (Assistant Secretary of Commerce Michael Gallagher cited in Goth, 2005).

To many this seemed like a serious drawback for the EU and that it was an illustration of the real balance of power. The US government went to the press outlining Europe's position in a way that was not in accordance with the content of the official document trying to split the European consensus. The US Secretary of State Condoleeza Rice even sent out a letter to the leaders of individual member states with the same objective. Hereby the US managed to put substantial pressure on EU administrations, which in the end had a positive effect in some states while others were affected very negatively. Yet, according to Sidse Ægidius, the rumors of a split Europe was not true in that the EU had agreed on its position for the Summit even before the letter was sent out. If one takes a look at the Prepcom-text it is evident that the EU did not change position in Tunis. The US government's effort to make the issue part of global politics and trying to make the EU accept the US dominance of the Internet regime, made the European Commissioner for the Information Society, Vivian Redding, declare that this was not about high politics but about general principles of human rights and fair distribution of global public goods. She also stated that the US would have acted differently if ICANN was located in China. That the US government is acting out demonstrating a power-political agenda must be left out in the open as Ægidius could not provide an answer to this question, although she did mention the enormous economy of the Internet and that the firms owning the gTLDs all are American (Ægidius, 2006).

On this background, the EU's influence on the process does not seem significant. However, it was the EU presented the text, which became the final compromise at the summit. Also, Ægidius made clear that the WSIS was only a step on the way. Even though the final documents were different from the end

[3] To split the root means to redirect traffic to new rootserver. All users connected to the new rootserver would not be able to access sites connected to the old server.

goals set up at the Prepcom meetings, the most important achievement was the division of the process into two paths. The EU succeeded in splitting up the subject into two processes, one for the technical matters under ICANN and one for the global public policy and development issues to be discussed in the IGF. Moreover, Ægidius points out that there is a difference in the end result for Internet governance the EU wishes to see, and what the Union expects to become consensus at the global level. What seemed as a strong positioning of the USA on one side and the EU and the developing countries on the other was in fact part of the European Union's strategy to maximize its influence in the WSIS process.

3.2.6 New Possibilities

At a first glance European influence on the future development of the Internet governance regime does not seem bright. However, new technologies are being developed and new systems will compete with the old Internet network and domain name system. Hence, ICANN will not be the only organization to perform these functions and the US will probably not be able to gain the same status in a new private organization. These new systems will likely have their origin in India or China a fact, which makes it even more important that rules on Internet governance are global and inclusive to secure interoperability between the systems. If the systems cannot communicate with each other, general principles such as human rights as well as freedom of speech could be threatened. Moreover, if communication across these new parallel systems is hindered, the positive effects of the technology, and thereby the process of globalization could be at risk. Thus, it should be in all stakeholders' interest (even the US) to discuss the development of these new technologies and to agree on global implementation of adequate rules on Internet governance (Ægidius, 2006).

In the WSIS process the European Union consensus about what competences and how much should be transferred to the different organizations has not been easy for the member states to reach. The EU's position is a representation of opinions found around the world about Internet governance. Therefore, if the European Union is able to achieve consensus there is a good possibility that the main protagonists of the Internet regime also will manage to do so at the global level (Ægidius, 2006). In any case the technological development continues, and so too will the Internet governance regime.

4 Conclusion and Discussion

"This culture of individual freedom that characterized the early computer developers as well as the diffusion of computer communication protocols in an open and free manner were crucial factors in shaping the Internet into one of the main infrastructures connecting the contemporary world and making it a public good that requires global-level coordination and regulation." (Castells, 2001: 22-23).

4.1 Changing Principles of Governance – the Power of the Internet

The Internet began as a military research project in the midst of the Cold War. The computer engineers invented the Internet technology enabled by funding from the US Defense Department. Even though one could have imagined that the military context would have hampered the evolution of the Internet because of security issues, it actually created an environment conducive to the creativity of the university scholars and research institutions. Hereby, the design, or nature, of the technology which was invented in order to facilitate communication between a few nodes, also became the structural basis for how it was to be governed. The essential open-endedness of the technology required a certain operability and stability, which for the first many years was assured by the Internet community itself on a bottom-up, ad-hoc basis. The fact that the DNS was managed by one person only, Jon Postel, illustrates that one individual's actions also can make a difference in regime development.

As the technology expanded and the economy of the Internet became apparent, the US government entered the stage and began to exert its influence. With the commercialization of the Internet the business sector entered, which changed the norms and principles for its governance. From the informal consensus of the Internet, the governance structures became privatized and formalized advocating self-regulation and profit-maximization. The US government, however, had the final authority. The day-to-day management was still in the hands of the engineers, who had done so successfully for a long time. The Internet community disliked the increased influence of the US government, which was in conflict with their beliefs of an emancipatory technology and believed self-regulation to be the best method of governance.

The creation of ICANN as a private, non-profit organization under US jurisdiction illustrates some interesting dynamics. First, the United States decision was a response to the worldwide criticism, when the system could not be legitimized any loner. Secondly the US was able to hinder other national

governments, with requirements for more state regulation of the Internet, from getting too much influence, which would hamper the enormous economic benefits.

The rapid development and dissemination of the Internet came as a surprise for politicians as well as the technology's initial engineers. Even though the two parties at first believed market forces and self-regulation to be sufficient in effectively coming to terms with the challenges of governing the Internet, new issues with regard to public policy had come to the fore as the Internet was evolving into a global infrastructure.

The WSIS and the division of Internet governance related issues into two separate processes was a victory for the EU, the developing countries and civil society organizations, because they now had an official forum, the IGF, in which universal issues of human rights and development could be discussed, even though the role of the IGF was only advisory. While these developments in the principles of Internet governance illustrate a drastic move towards a more inclusive system with more actors able to influence the process and a new overarching UN-oriented discourse, the history of the technology and the context in which it developed still is present with the final authority over the Internet still residing with the US government.

The WSIS marked an important step forward in making Internet governance a more inclusive process and acknowledging the global implications of the technology. Moreover, it marked that the outcome of the negotiations was just a beginning and that the process of achieving more inclusive Internet governance structures would continue, as would the attempts to move the debate into an even broader paradigm of globalization and worldwide development.

The future is not easily predicted. What is evident, however, is that technological developments will continue. New networking technologies will empower new actors while disempowering others with the result of changed power constellations.

In my view the danger is that if the US, the EU and other stakeholders do not continue to cooperate on a global level the power of the Internet to our globalized society might be at risk. If different standards of the technology are launched, by China for example, that cannot communicate with the older ones, thereby the positive outcomes of globalization might be halted. Before technological developments will make the systems interoperable, the dissemination of power to new actors at different societal levels will be set back, hereby ending, or "pausing" the achievement of a new normative paradigm of inclusive global governance of the Internet.

As I have argued in the theoretical chapters the contemporary economy is (with some exceptions) informational, global and networked. The economy of the Internet has expanded rapidly and today the Net is perceived as a grand power resource – not only in the traditional manner, but with a transformatory power changing how politics is conducted and how society works.

When something becomes an important resource not only on the individual or state level but to the entire global economy, and has become the main infrastructure of contemporary globalization, governments of nation states decide

to cooperate in order to achieve common goals, despite conflicting normative views. However, the process of developing rules for Internet governance has not only included national governments, but many other actors have been involved, with time establishing a network of stakeholders.

The power and use of technology itself, more specifically the Internet, has been essential to the evolution of the Internet governance regime (as the arrow on the right of figure 2 illustrates) and the rapid dissemination of the Internet and its growing importance to society has been important, increasing the number of participants and their possibility to influence the process. Furthermore, the regime has seen a change in principles and norms of governance, although the normative differences still exists. Although there has been changes in the discourse of Internet since it was launched, the old structures based on the principles set forth by the specific nature of the technology, still form the basis of the regime.

The complexity of the Internet governance regime is well illustrated by the network of participating actors at different political and social levels cooperating in order to achieve consensus, but at the same time competing to maximize their influence in the rule making process. The Internet governance regime has hereby evolved because of the interaction among the different stakeholder groups in the context of specific enabling and constraining societal structures, such as the pervasiveness of the physical Internet network, the technological standards it consist of, as well as the regulations nation states and international law. The debate on Internet governance, being a controversial issue, is ongoing and will with great probability continue to do so in a foreseeable future, keeping the evolution of the regime alive.

4.2 Looking Beyond

In answering the research question posed in the beginning of this thesis of how to study the evolution of the Internet governance regime it is first important to acknowledge that regimes are about courses of events and dynamics and therefore are not static. In a regime the involved actors constantly negotiate about outcomes struggling to gain influence. Consequently a process-oriented approach seems best fit to explain an evolutionary process of creating institutions and rule-making because it is able to capture the dynamic interaction between actors and structures. These dynamics between the actors and the societal structures in which and with which they interact, I believe, are successfully illustrated.

Based on the structuration theory, the analytical tool outlined in this study is both dynamic and dialectic, which is important when the subject matter is complex and not clearly defined. Moreover, when the dynamics are accounted for as a historical process one is able to get a more comprehensive view of the events in the process. However, as I have mentioned earlier, I am aware that an analytical tool cannot capture everything, and neither can this one - and even less in a short

study like mine. Also, the greatest limitation of a case study is argued to be the difficulty of making generalizations.

In this thesis the empirical focus has been on the story of the evolution of the Internet governance on the background of a theoretical framework. It has not been my aim to make large generalizations as this would require in depth discussions on other regime studies. However, in my opinion, the structuration theory as both a meta-theory and an analytical perspective allows me to make some sorts of "*analytical* generalizations". If a regime is viewed as a dynamic process, then the generality of the structuration theory must be able to explain other regime histories, not saying that it is the best explanation of all cases. Although, this has yet to be proved in other studies applying Giddens' structurational perspective on political processes and societal interaction and change.

The subject of Internet governance is complex and contains an array of interesting issues for future studies of regime and international relations scholarship, not the least because it is of vital importance to our society, the way technology has transformed politics and human interaction, and to globalization as a whole.

5 References

5.1 Primary Sources

5.1.1 Interview

Ægidius, Sidse, Head of International ICT Policy at the Danish Ministry of Science, Technology and Innovation. Interview conducted 6. March 2006. (Translation attached as appendix B)

5.1.2 Official Documents

Annan, Kofi, Statement by H.E. Mr. Kofi Annan, Secretary-General of the UN. Tunis, 16 November 2005. (http://www.itu.int/wsis/tunis/statements/docs/io-un-opening/1.html)

ICANN, Articles of Incorporation of Internet Corporation for Assigned Names and Numbers November 21, 1998. (http://www.icann.org/general/articles.htm)

Working Group on Internet Governance, Report from the Working Group on Internet Governance. Documents WSIS-II/PC-3/DOC/5-E. 3. August 2005.

World Summit on the Information Society Outcome Documents Geneva 2003-Tunis 2005. Tunis Agenda for the Information Society. December 2005.

World Summit on the Information Society, Geneva Declaration of Principles. WSIS-03/GENEVA/DOC/0004.10-12 December 2003. (http://www.itu.int/wsis/docs/geneva/official/dop.html)

World Summit on the Information Society, Plan of Action, WSIS-03/GENEVA/DOC/0005. 10-12 December 2003. (http://www.itu.int/wsis/docs/geneva/official/poa.html)

National Telecommunications and Information Administration, U.S. Principles on the Internet's Domain Name and Addressing System. (http://www.ntia.doc.gov/ntiahome/domainname/USDNSprinciples_06302005.htm)

5.1.3 Secondary Sources

Baldwin, David A., 2002. Power and International Relations. Carlsnaes, Walter et. al. (eds.), 2002. *Handbook of International Relations.* London: Sage Publications

Castells, Manuel, 2001. *The Internet Galaxy: Reflections on the Internet, Business, and Society.* Oxford: Oxford University Press

Deibert, , 2002. The Rise of Network Security. Rosenau, James N.; Singh, J.P. (eds.), 2002. *"Information Technologies and Global Politics. The Changing Scope of Power and Governance"*. New York: State University of New York Press

Drake, William J., 2004. Reframing *Internet Governance Discourse: Fifteen Baseline Propositions.* Memo #2 for the Social Science Research Council's Research Network on IT and Governance. (Paper based on presentations at the Workshop on Internet Governance, International Telecommunication Union, Geneva, February 26-27, 2004; and the UN ICT Task Force Global Forum on Internet Governance, New York City; March 25-26, 2004).

Farrell, Henry, 2006. The Political Economy of the Internet and E-Commerce. Stubbs, Richard; Underhill, Geoffrey R.D. (eds), *Political Economy and the Changing World Order*. Canada: Oxford University Press

Figueres, Jose Maria, 2004. Preface. *Internet Governance: A grand Collaboration.* An Edited Collection of Papers Contributed to the United Nations ICT Task Force Global Forum on Internet Governance, 2004. United Nations: ICT Task Force Series 5.

Forouzan Behrouz A. 2001. *Data Communications and Networking* 2nd. ed. New York: McGraw-Hill.

Giddens, Anthony (1984). *The Constitution of Society.* Cambridge: Polity Press

Giddens, Anthony 1979. *Central Problems in Social Theory: Action Structure and Contradiction in Social analysis.* Berkely, CA: University of California Press.

Glarbo, Kenneth (2001). Reconstructing a Common European Foreign Policy in Christiansen, T, Jørgensen, K. E., Wiener, A. (eds). *The Social Construction of Europe.* London: Sage

Goldsmith, Jack, and Tim Wu, 2006. *Who Controls the Internet? Illusions of a Borderless World.* Oxford: Oxford University Press

Goth, Greg (2005) Governance Debate Enters New Phase. *IEEE Internet Computing.* September-October 2005. Published by IEEE Computer Society www.computer.org/internet/

Haas, Ernst B., 1982. Words can Hurt You; or, Who Said What to Whom about Regimes. *International Organization* 36, 2, Spring 1982. Massachusetts Institute of Technology

Hart, Thomas & Rolletschek, Gerhard, 2003. The Challenges of Regulating the Web. *Info – The Journal of Policy, Regulation and Strategy for Telecommunications* Volume 5, Number 5 2003 pp. 6-24. Emerald Group Publishing Limited.

Held, David & McGrew, Anthony (eds.), 2003, 2nd edition. The Great Globalization Debate: An Introduction. *The Global Transformations Reader*. Cambridge: Polity Press

Held, David et. al., 2003. Rethinking Globalization in Held, David & McGrew, Anthony (eds.), 2003, 2nd edition. *The Global Transformations Reader*. Cambridge: Polity Press

Jönsson, Christer, 1987. *International Aviation and the Politics of Regime Change.* London: Frances Pinter (Publishers)

Kahn, Robert E., 2004. Working Code and Rough Consensus: The Internet as Social Evolution. *Internet Governance: A grand Collaboration.* An Edited Collection of Papers Contributed to the United Nations ICT Task Force Global Forum on Internet Governance, 2004. United Nations: ICT Task Force Series 5.

Keohane, Robert O., and Joseph S. Nye, Jr., 2002. "Power and Interdependence in the Information Age." *Governance.com: Democracy in the Information Age.* Ed. Kamarck, Elaine, and Joseph S. Nye, Jr. Washington D.C: Brookings Institution.

Keohane, Robert O.; Nye, Joseph. S, 2001. *Power and Interdependence* (third edition). New York: Longman

Kleinwächter, Wolfgang, 2004. Beyond IACNN vs. ITU: Will WSIS Open New Territory for Internet Governance?. *Internet Governance: A grand Collaboration.* An Edited Collection of Papers Contributed to the United Nations ICT Task Force Global Forum on Internet Governance, 2004. United Nations: ICT Task Force Series 5.

Krasner, Stephen D., 1982. Structural Causes and Regime Consequences: Regimes as Intervening Variables. *International Organization* 36, 2, Spring 1992. Massachusetts Institute of Technology.

Kvale, Steinar, 1997. *Den kvalitativa forskningsintervjun.* Lund: Studentlitteratur

Landman, Todd, 2003. *Issues and Methods in Comparative Politics: an Introduction.* London: Routledge

Leib, Volker, 2002. ICANN – EU can't: Internet Governance and Europe's Role in the Formation of the Internet Corporation for Assigned Names and Numbers (ICANN). *Telematics and Informatics* 19 (2002) 159-171

Leijphart, Arend, 1971. Comparative Politics and Comparative Method. *American Political Science Review*, Vol.65, No. 3 (Sep., 1971) pp. 682-693

Litfin, Karen T., 2002. Public Eyes: Satellite Imagery, the Globalization of Transparency and New Networks of Surveillance in Rosenau, James N.; Singh, J.P. (eds.), 2002. *"Information Technologies and Global Politics. The Changing Scope of Power and Governance"*. New York: State University of New York Press

Lundquist, Lennart, 1993. *Det vetenskapliga studiet av politik*. Lund: Studentlitteratur

MacLean, Don, 2004a. Introduction. *Internet Governance: A grand Collaboration.* An Edited Collection of Papers Contributed to the United Nations ICT Task Force Global Forum on Internet Governance, 2004. United Nations: ICT Task Force Series 5.

MacLean, Don, 2004b. *Herding Schrödinger's Cats: Some Conceptual Tools for Thinking about Internet Governance.* Background Paper for the ITU Workshop on Internet Governance, Geneva, 26-27 February 2004. http://www.itu.int/wsis/documents/background.asp?lang=en&theme=ip

Mueller et. al., 2004. *Making Sense of Internet Governance: Defining Principles and Norms in a Policy Context.* April 2004. http://dcc.syr.edu/reports.htm

Orlikowski, Wanda J. 1992. The Duality of Technology: Rethinking the Concept of Technology in organizations. *Organization Science* vol. 3, 1992

Peters, B. Guy 1998. *Comparative Politics. Theory and Methods*. Hampshire: Palgrave.

Schulzrinne, Henning, 1999. Converging on Internet Telephony. *IEEE Internet Computing* May-June 1999. http://computer.org/internet

Simmons, Beth A. & Martin, Lisa J., 2002. International Organizations and Institutions in Carlsnaes, Walter et. al. (eds.) 2002. *Handbook of International Relations.* London: Sage Publications

Singh, J. P., 2002. Introduction: Information Technologies and the Changing Scope of Global Governance, in Rosenau, James N.; Singh, J.P. (Eds.), 2002. *"Information Technologies and Global Politics. The Changing Scope of Power and Governance"*. New York: State University of New York Press

Slaughter, Anne-Marie, 2004. *A New World Order*. Princeton, N.J.: Princeton University Press

Slevin, James, 2000. *The Internet and Society.* Cambridge: Polity Press

Wendt, Alexander, 1992. *Anarchy is What States Make of it: The Social Construction of Power Politics.* International Organization. (Spring) 46(2): 391-425.

Wilson III, Ernest J., 2005. What is Internet Governance and Where does it Come from? *International Public Policy*, 25, 1, 29-50

Yin, Robert K, 1984. *Case Study Research: Design and Methods*. Beverly Hills: Sage Publications.

5.2 Websites

http://www.icann.org
http://www.itu.int
http://www.itu.int/wsis/index.html
http://www.ntia.doc.gov/
http://www.intgovforum.org/
http://www.euractiv.com/en/infosociety/eu-groans-onslaught-applicants/article-154271

Appendix A

Interview with Sidse Ægidius, Head of International ICT Policy at the Danish Ministry of Science, Technology and Innovation, conducted by Julia Kahan-Czarny in Copenhagen, Denmark 6/3-2006 (Translated into English).

J K-C: Can you tell me about the role of European Union and how its position in the WSIS negotiations has developed:

Internet governance has been on the agenda since the end of the 1990s, and there has been an intensive dialogue since the establishment of ICANN. Originating in the United States, the dialogue about how to regulate the Internet when there on the one side was a history on the issue, with no formal regulation in place, just certain norms for specific areas of its use, and on the other side, there was the question if a formal set of rules for the entire Internet sphere should be created, or not. On the technical issues, however, the parties agreed on the need for global standardized rules on Internet addresses and domain names in order for the system to work fair and effectively.

On the background of an analysis on the issue, the US decided to establish ICANN as a private American organization. The organization was, however, based on certain written agreements, which delegated competences from the US government to ICANN. Then, in the context of ICANN it was decided that an advisory governmental committee was to be established. Assigning governments an advisory role in a private organization is unique, and that its legitimacy is based on certain statutes of the private organization, is a very unique construction, which cannot be found anywhere else.

On the IGF side of things there was a wish to start coordinating, between international organizations, the development principles for governance. It was decided that focus, in the first place, should be on the identification of problems global in character and therefore of relevance to some or all international organizations and then go on to debate and analyze the problems identified before going into ”development mode”. Hereby the parties should be able to avoid differing and incompatible governance principles.

In other issue-areas one can identify several other relevant global problems, which have to be governed i.e. the issue of security and span. The development-related issues are also debated in the IGF. More specifically the issues of giving developing countries the possibility to take part in the building of the information society and thereby making them able to understand what it takes to develop the necessary competencies in their countries as well as figuring out how to built a physical infrastructure that works but is not too expensive.

The EU has consciously drawn a line between the IGF-related issues and the basic functions, which are in the realm of ICANN. The two issues related to ICANN, the dominance of the US and the lack of government influence on public policy issues, have specifically been addressed in the final WSIS documents as an independent process which has to be worked on in the future. It has also been requested that the parties continue to keep the issues separated and that the organizations working with the technical ICANN-issues start evaluating and making sure that government influence will be enhanced.

The position of the US has been somewhat stable, despite the fact that point of departure in 1998 with the establishment of ICANN was that ICANN was to be given all the competences, which the US Department of Commerce, last year, declared that it would not in any circumstances follow through.

During the entire process the EU has been characterized by differing opinions among the member states, and it has been difficult to reach a joint compromise on how much competence should be given to international organizations, i.e. ICANN and ITU, which the past years have tried to redefined their mandate to include also the Internet because of today's convergence of ICTs, it is given that the Internet will be decisive in establishing ITU's future influence and mandate. If ITU does not get its mandate expanded to Internet-related issues its relevance will drastically diminish in a short period of time because telephony will be IP-based, and hereafter it is only the connection to old telephone numbers and the interoperability between the different numbers which is relevant to the ITU. In this sense there has been an organizational war between the two organizations, and in reality also two different schools of thought. On the one side there is the view that the Internet should be regulated like old telecommunications because it is just a new technology but the principles should still be the same. On the other side there are the ones arguing that the Internet should not be regulated or as little as possible, the industry has managed well until now and it generates higher growth and faster innovation and a completely different context in creating good business. Lastly, there is the "middle school", which finds that certain issues of general (universal) and global importance such as human rights and principles of competition and consumer protection should be regulated, and that the Internet cannot be totally lawless. The middle position is the European Union's official position and it mirrors a diverse range of member states' positions. So, there have been intense negotiations in the EU with regard of finding a balanced position.

J K-C: The recent writings in the media about the change in EU's position just before the WSIS in Tunis made it look like the EU had altered its official position to be closer to the position of the developing countries with Brazil, India and China in the lead, but then again, the EU reversed its position. It was my impression that it was the letter written by Condoleeza Rice, which made the EU reverse the position. Is this the case?

No, that is not the case. The letter was sent around after the EU had reached consensus on its official position for the Summit. One also has to be aware of the difference between the end result that the EU would like to see for Internet Governance as a global regime, and what it expects to become consensus at the Summit. The World Summit is a step on the way and is a forum in which Internet governance has been debated, but as the WSIS documents also show, two processes have been established which are supposed to lead to a clarification and to function as a frame for how Internet governance has to be handled in the future.

But yes, it is true that the USA went to the press a lot and outlined the EU's position in a manner, which was not in accordance with what the official documents contained and put pressure on national administrations and governments with the aim of making the US position explicit. But I have to say that it had a positive effect on some and a very negative on others. That the attempt to make the issue a high politics issue on the global level making the Union's acceptance of the continuation of US domination on the Internet a part of the world's big jigsaw puzzle and an issue of high politics, made EU Commissioner on the Information Society Vivian Redding to come forward several times stating that this was an issue of fundamental principles – a question of human rights and equal distribution of responsibility. She also mentioned the very interesting comparison that if ICANN had been established in China, the position of the USA would have been different.

J K-C: Do you see the US position a part of their foreign policy and as a power resource?

As a representative of the Danish government I am not supposed to speak about that, however I can say that it is my opinion that there is an amazing economy in the Internet and if one takes a look at the changes, which all countries except the USA, Canada, Australia and New Zealand have suggested, the entire turnover of the generic top-level domain names .com and .net lie within the United States. It is all American companies that own the generic top-level domains and with the new facilities of the Internet technology with regard to the new search engines, and there is a fantastic economy in the hits getting to the domains. And there are potentially very very large profits to the owners and administrators of the top-level domain names. So, one can conclude that there is a lot of money involved in this issue.

J K-C: How do you view the possibilities of the EU to influence this process in the future?

I believe it is essential to keep in mind that the domain name system, which at this point in time is the most crucial issue, will in a few years meet competition from a series of other systems. Yes, already today one can see that VeriSigns' "object name system" is open to registrations. The new networks will bring other registration systems to the fore, which will result in ICANN not being the only

organization executing the functions it performs today. This is an important way to untie the tight knot one may say the situation is in at the moment with the US not willing to change status-quo. And the fact that the US supposedly will not be able to gain the same status in another private organization as it has in ICANN. These systems will, or some of them will probably have their origin in China, or India, or in other places and the entire regulative framework, which is a precondition for the whole thing to work, will therefore necessarily be more global, otherwise we will end up with many parallel rule systems not necessarily being compatible. And the US will also realize that this not a very good idea.

In my opinion, globalization will crumble when one can no longer reach the information one wants to get if the systems are not compatible, what is your comment on this?

What would supposedly happen is that one would have to make parallel systems and make sure that tools were developed which enabled the systems to communicate across. But it would also make things more difficult. This also threatens some of the fundamental human rights; freedom of speech and assembly as well as access to information and content control. There are many aspects, which are crucial to and that should be decisive in how the systems are put together, and therefore there is a need to, on a global level, to reach an agreement on the rules that are to be implemented, and which rules that are important in this context – and this will also be in the interest to the US. They have at several occasions expressed that it is very much interested in discussing these new systems. And lets us now leave ICANN alone and begin forward-looking discussions instead. And there they will lose some of its argumentation with regard to the new systems, if they have been very reluctant to debate what it has done with their own.

J K-C: Now, when the EU has a joint position, how do you see the power of the EU to influence future negotiations about these new systems, and do you see India or Brazil getting more influence?

What the WSIS process has shown is that the EU actually was the one to come up with the compromise text and if one looks at the text which was on the table at the preparatory conference, then we have not reached the end goals but we have established a separation between what is to be under the auspices of the Internet Governance Forum and the technical issues of ownership, which are to be discussed separately. At the WSIS it became apparent that it was not possible to reach a final conclusion of how things were to look like. The EU, however, chose to put forward the different views strongly in connection with the preparations of the conference and then, subsequently, was to negotiate a separate mandate to how the WSIS negotiations should progress. This was clearly process-oriented and that is of course due to the question of assessing at which point we can reach an agreement. So, yes I have to say that the EU is in a strong position, however, one has to take into account the influences of the outside world that are affecting

the differing positions of the member states and therefore it is a challenge to make sure that there also in the future will be a joint European consensus and that the processes will be forward-oriented.

J K-C: What about other important actors in the process?

The entire WSIS process marks a change with regard to the approach to who participates in world summits. The entire process, with regard to the drafting of the plan of actions and documents that were outcomes of the WSIS in 2003 and 2005, is an illustration of a multi-stakeholder approach, which means that all relevant stakeholders are to be heard. For a long time there were discussions about whether the stakeholders were to attend the meetings and after that how what their mandate should look like. In a larger perspective we can definitely say that the WSIS is an enormous step forward compared to earlier where other actors than governments were reduced to be the audience, and sometimes not even that. Thus, civil society is colossally much involved in this and is very enthusiastic about the Internet Governance Forum and the possibilities it gives them to express themselves, make themselves heard and carry out analyses founded on a broad perspective of the needs of society. The part of academia dealing with the Internet and its effects on society is enormous and is also strongly involved. The industry, however with a different agenda, is also very much involved because of the large sums of money the Internet involves. So yes it is all. And surely it was a surprise to some governments to experience that other actors than themselves actually got permission to have a say. One can however say that the last negotiations of the text in Tunis happened between the governments and not with the others, but with strong advice from many of the other actors.

If one takes a look at texts that were put forward in connection to the last negotiations before the Summit, then it is completely evident that the EU did not move towards the position of India, China etc, but that they saw some possibilities in what the EU had stated earlier. Therefore the opinion of the EU has been that a regime should be established in which government interests and competencies and public policy issues to a much larger extend than today were to be respected.

What can I say, the entire set-up for the negotiations as well as the balancing of the different views in the EU, is in reality, to a large extent represents the spectrum of opinions to be found in the rest of the world. This means that in the relatively organized processes a sorting out and a refinement of the different point of views, which in reality reflects what would make up a compromise at the global level. Hence, if the EU can reach an agreement, then there is a good chance that the rest of the world, in one way or another, will manage as well. And then the EU has gradually become a very powerful group. It is a large economy with many people, and with the enlargement we are bigger than the United States.