

THE CLASSIFICATION OF INTERNET GOVERNANCE

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NOTE: This paper summarises the current phase of a research project on the classification of Internet governance. The current text is open for hypertext discussion on Diplo's hypertext server. Hypertext-based discussion, used in both teaching and research activities, is one of Diplo's main methodological tools.

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PREFACE

Internet governance activities are part of Diplo's broader research on the influence of ICT/Internet on diplomacy. Diplo's methodology is divided into three main segments:

1. ICT/Internet-driven Changes in the Social, Political and Economic **ENVIRONMENT FOR DIPLOMATIC ACTIVITIES** – discusses the overall position of diplomacy in the context of the changes to national and international structures brought about by the development of ICT. It includes issues such as: changes in the concept of sovereignty, soft power, new actors in diplomatic activities, as well as changes in the relevance of time and space in international relations.
2. ICT/Internet-related **TOPICS ON DIPLOMATIC AGENDAS** – deals both with old topics addressed within a new context (e.g. intellectual property rights, telecommunications policy) and new topics (e.g. Internet regulation, spam). The main focus is on the new field of Internet governance, which covers a wide variety of related topics.
3. New **TOOLS FOR DIPLOMATIC ACTIVITIES** – addresses the newly developed ICT tools and techniques, which are being employed in diplomatic activities. This segment includes the use of ICT/Internet in both traditional diplomatic activities (negotiations, representation, information gathering, consular protection) as well as in new areas, such as artificial intelligence and knowledge management.

Diplo's Internet governance activities consist of the following:

1. Internet Governance Courses

So far, more than 300 diplomats, mainly from developing countries, have been provided with training in Internet/ICT governance-related issues. Given the importance of Internet governance, traditionally during this time of year, Diplo has run the following courses:

- Internet Governance Course as part of the Postgraduate Diploma Course (February-December 2004);
- Internet Governance Course for Geneva-based diplomats from developing countries (September-November 2004);
- Internet Governance Course for Serbia and Montenegro (November 2004 and November 2005).

A few additional regional and national courses are also being prepared.

2. Research

- Classification of Internet governance;
- Analysis of various, mainly international, legal aspects of Internet governance;
- Multistakeholder Diplomacy and Internet-related negotiations;
- Emerging Language of Internet Diplomacy.

3. Tools and Portals

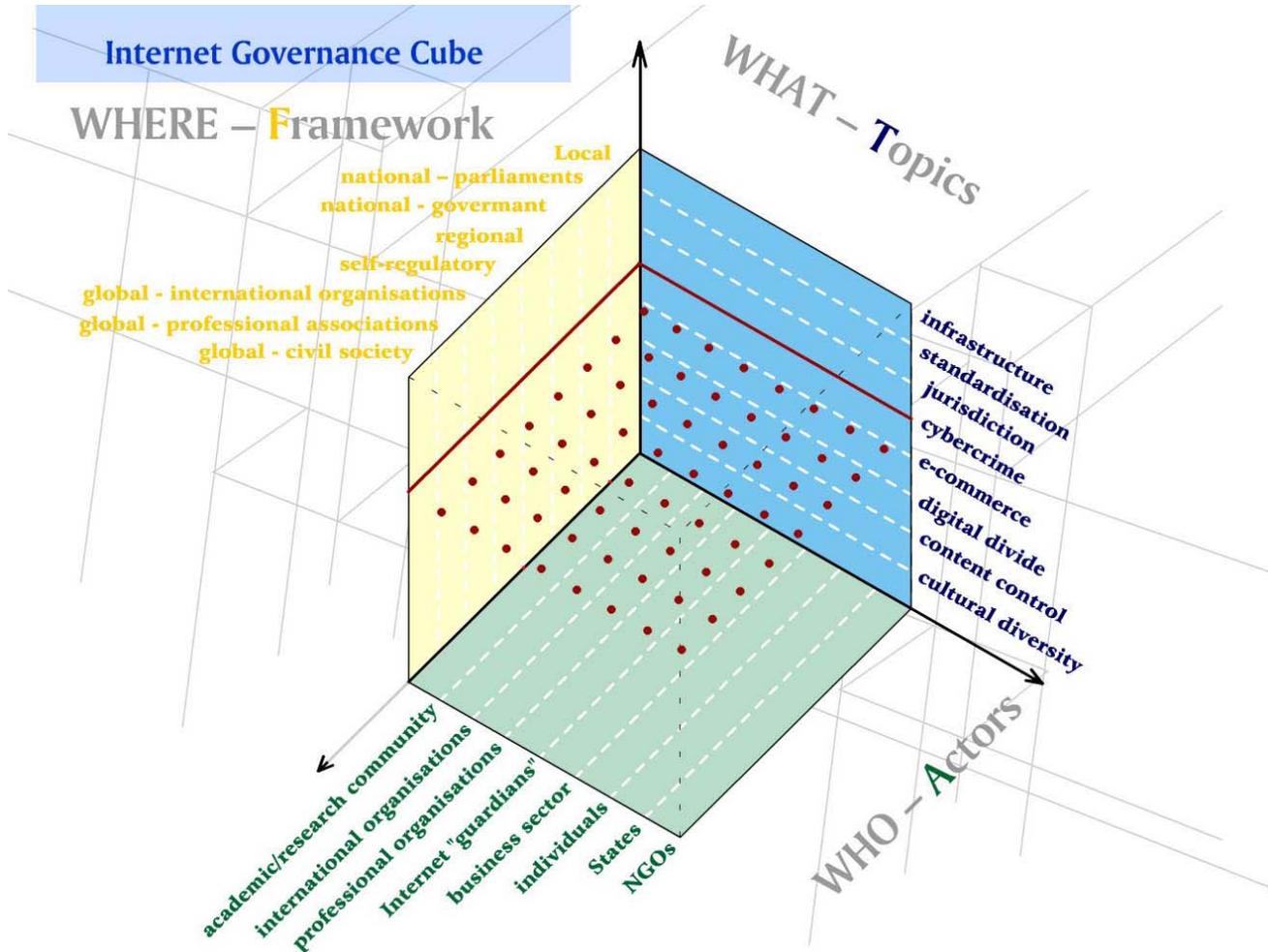
- Further expansion of the Internet Governance Portal;
- Development of the Internet Governance Dictionary;
- Utilisation of the Online Negotiation Platform for Internet governance.

Our overall Internet governance methodology, used in the above listed activities, is represented through the two enclosed graphics:

- Internet Governance Cube;
- Internet Governance "Building under Construction."

THE INTERNET GOVERNANCE CUBE

A Multidimensional Representation of Diplo's Internet Governance Methodology



The **WHAT** axis is related to **the issues** of Internet governance (e.g. infrastructure, copyright, privacy). It conveys the multi-disciplinary aspect of this approach.

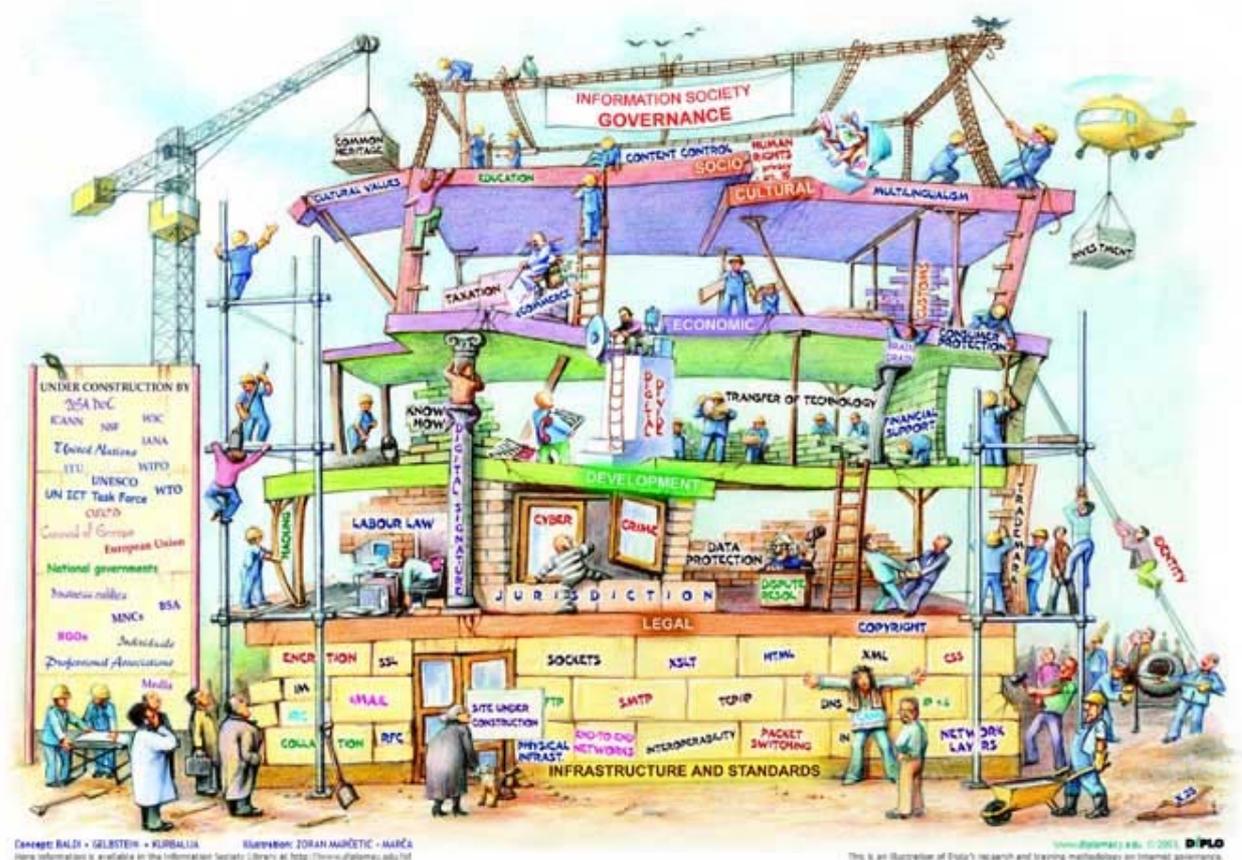
The **WHO** axis of the cube focuses on the main **actors** (states, international organisations, civil society, the private sector). This is the multi-stakeholder side.

The **WHERE** axis of the cube deals with the **frameworks** in which Internet issues should be addressed (self-regulatory, local, national, regional, and global). This is the multi-layered approach to Internet governance.

When we move pieces in our cube we get the intersection – **HOW**. This is the section of the cube that can help us to see how particular issues should be regulated, both in terms of cognitive-legal techniques (e.g. analogies) and in terms of instruments (e.g. soft law, treaties, and declarations). For example, one specific intersection could help us to see HOW privacy issues (what) should be addressed by civil society (who) on the national level (where).

Separate from the Internet Governance Cube is a fifth component – **WHEN**.

INTERNET GOVERNANCE – “BUILDING UNDER CONSTRUCTION”



The first discussions about the Internet were characterised by the use of many metaphors. Metaphors are a useful cognitive tool for explaining new phenomena, such as Internet governance. They anchor them in our reality. We chose to use the metaphor of a building.

When we speak of metaphors of buildings, one of the first associations is the *Tower of Babel*. We hope that the similarity ends there. The Internet governance process should enhance understanding and result in the development of more robust and legitimate mechanisms for the future development of the Internet.

One promising sign is that most participants in the debate on Internet governance, including those who do not share the same views, have adopted the *Building under Construction* as a useful framework for discussion.

THE CLASSIFICATION OF INTERNET GOVERNANCE¹

1. INTRODUCTION

Internet governance is a complex new field requiring an initial conceptual mapping and classification. The complexity of Internet governance is related to its multidisciplinary nature, encompassing a variety of aspects, including: technology, socio-economics, development, law, and politics.

The need for an initial mapping of Internet governance is both theoretical and practical. On the theoretical side, an increasing volume of academic research on Internet governance is being produced, but it has focussed mainly on ICANN and other issues belonging to the so called “narrow definition” of Internet governance. Yet a broader theoretical framework is lacking, especially when it comes to the international aspects of Internet Governance. The practical need for classification was clearly demonstrated during the WSIS process. Many players, including nation states, faced a considerable challenge in grasping the complexity of Internet governance. A conceptual mapping of the field should contribute towards more efficient negotiations in the context of the WSIS as well as other multilateral negotiation processes.

A classification may assist Internet governance players with the following:

- clearer identification of the main negotiation issues;
- reduction of negotiation “noise” caused by disparate interpretations of the main concepts;
- avoidance of duplicate efforts in addressing the same issues in multiple fora;
- identification of the common attributes of different issues should help players learn from the practices of other international regimes; for example, some experiences from the highly successful regime on civil aviation could be transferred to Internet governance after the common attributes for both areas have been identified;
- maintenance of a proper balance between a broad perspective and concrete issues, thereby avoiding the problem of being “unable to see the forest for the trees.”

Ultimately, a careful mapping of Internet issues should make the process of negotiating Internet governance more efficient. In economic terms, it should reduce the “transaction cost”; in other words, reduce time wasted during negotiations. This would be of particular benefit to countries with limited financial and human resources, thus enabling their increased participation. Unclear and confusing negotiating processes require disproportionately higher human resources and more time.

In negotiations, the classification of Internet governance might be considered a part of the very important agenda-setting phase.

1.1. Official Context for Classification

The WSIS Action Plan proposes that the newly formed Working Group on Internet governance should, “identify the public policy issues that are relevant to Internet governance.” The process of identifying the public policy issues assumes the need for classification.

¹ The main parts of this discussion paper will be published by the end of 2004 in: “Booklet on Internet Governance” (Baldi, Gelbstein and Kurbalija) and “Internet Governance and Diplomacy” (Kurbalija).

The Deputy Secretary-General of the United Nations made a more explicit pronouncement about the need for the classification of Internet governance at the Global Forum on Internet Governance (New York, 25-26 March 2004): “I was pleased to hear that you had offered to develop a matrix of all issues of Internet governance addressed by multilateral institutions, including gaps and concerns, to assist the Secretary-General in moving forward the agenda on these issues.”

2. CLASSIFICATION METHODS

2.1. What can we learn about the classification methods from other disciplines?

Human beings are continuously classifying things and ideas. From simple everyday experiences, to complex scientific theories, we strive to make sense of our surroundings and mindscapes. Whether organising the papers on a table, books in a library or making sense of the news, we are constantly putting things and ideas into manageable order. Achieving order reduces confusion and brings about cognitive consonance, as professional psychologists would say.

2.2. Terminology

Various terms are used to describe the process of placing ideas and things into a manageable order, including classification, typology, taxonomy, categorisation, scheming, mapping, nomenclature, and cataloguing. Some of these words, such as taxonomy, have very precise meanings.² Taxonomy is used in biology to classify different species. It involves a bottom-up approach based on *empiria* – observation and measurement.

Most of the other words are used interchangeably to a large extent, to describe different ways to organise ideas and things. A further linguistic analysis, beyond the scope of this paper, would help in identifying the subtle differences between these terms.

I used the term “taxonomy” in the paper, “The Taxonomy of Internet Governance,” which was presented at the ITU workshop in February 2004. Subsequent research, especially in the field of logic, showed that it was not a proper use of the term. As I’ve already said, the term “taxonomy,” which originates from biology, has a very precise meaning. Although it is used in social sciences without a high degree of precision, I prefer to establish and maintain as much terminological and conceptual exactness as possible. This is why the highly precise term “taxonomy” has been replaced with the broader term “classification,” which I will use to describe both the process and the end result of my research.³ One of the most comprehensive definitions of classification is provided by Spenser:

*By the classification of any series of objects is meant the actual or ideal arrangement together of those things which are like and the separation of those which are unlike, the purpose of the arrangement being, primarily, to disclose the correlations or laws of union of properties and circumstances, and, secondarily, to facilitate the operations of the mind in clearly conceiving and retaining in memory the characters of the objects in question.*⁴

² The word taxonomy derives from the two Greek words: *taxis* (“arrangement”) and *nomos* (“law”). The closest literal translation of taxonomy would be “the law of arrangement.”

³ The term classification is often used to describe the process leading towards the creation of a taxonomy or other forms of classification.

⁴ Adam Jones Leroy: *Logic, Inductive and Deductive: An Introduction to Scientific Method* (New York: H. Holt and Company, 1909), 36.

2.3. History

The first important development in the history of classification was Aristotle's classification of animals according to their modes of reproduction and possession or lack of red blood. After Aristotle, the next major development was the introduction of nomenclature in the mid-eighteenth century by Carolus Linnaeus. One century later, Charles Darwin added evolutionary importance to classification in biology. Interest in classification was soon extended to other disciplines, due to the rise of scientific enquiry and the development of encyclopaedia, considered to be grand repositories of human knowledge. Classifications are present throughout modern society, from traditional libraries to websites such as Yahoo!.

2.4. How do we classify?

The first step of every classification is the identification of basic attributes. Even in highly precise scientific environments, the selection of classification attributes is a subjective decision based on particular research approaches. In the social sciences, the level of arbitrariness is even higher. The research standpoint determines the classification scheme. For example, a librarian classifies a book according to its content, a bookbinder according to its binding, and a bibliophile according to its date of printing. Thus, a book, like most things being classified, has more than one classification attribute. The challenge is to select the most relevant attribute.

The classification path can be either "bottom-up" or "top-down." In a "bottom-up" classification, empirical data are gathered and entities are placed into broader categories (e.g. mammals, in biology) according to their characteristics (e.g. red blood, wings). This is usually a taxonomic approach. A "top-down" approach begins with setting up conceptually broad categories, within which particular elements will later be placed. The result of this approach is usually called a typology.

The final aspect of the classification process is the specification of the relationships between the classified entities. Spenser indicates that classification is based on the principle that objects within a particular class share more characteristics with each other than they do with objects outside of the class.⁵ Relationships between entities in the same class can be either equivalent or hierarchical. Various levels of relationships with entities outside a particular class might also exist.

3. THE APPLICATION OF CLASSIFICATION METHODOLOGY TO INTERNET GOVERNANCE

Specialists in different fields related to Internet governance hold different perspectives on the topic, determining their approach to classification: "To a man with only a hammer, the whole world looks like a nail." For example, telecommunications specialists see Internet governance through the prism of the development of the technical infrastructure. Computer specialists focus on the development of various standards, such as XML or Java. Communication specialists stress the facilitation of communication. Human rights activists view Internet governance from the perspective of the freedom of expression, privacy, and other basic rights. Lawyers concentrate on jurisdiction. Each of these professions, as well as others that have a stake in the development of Internet governance, highlights its own particular area of interest. The choice of a particular professional approach to classification will ultimately be decided by the diplomatic process itself.

⁵ Spencer: *Essays, Scientific, Political, and Speculative*.

Diplo's process of classification of Internet governance consists of three steps, combining deductive and inductive approaches.

3.1. First Step: The Identification of Issues

The basis for identifying Internet governance issues is the TCP/IP-based Internet infrastructure. TCP/IP is the *differentia specifica* between the Internet and other related fields, such as general ICT networking, telecommunications, as well as hardware and software development. To put it simply, if an issue is related to the development, maintenance, or management of TCP/IP, it can be classified within Internet governance. Moreover, all issues that depend on TCP/IP-based network activities will also be part of Internet governance.

The problem with using TCP/IP as the main classification element in Internet governance is that it would lead to increasing vagueness. The more telecommunication and entertainment applications migrate towards TCP/IP-based technologies, the more issues might be included in Internet governance. Even highly sensitive and proprietary systems, such as the SWIFT financial system, are migrating from proprietary protocols to TCP/IP. If you apply only a technical criterion, in this case TCP/IP, to the classification of Internet governance, you may end up covering everything under the sun. Nevertheless, TCP/IP remains the only solid starting point for the classification process. The problem of vagueness related to TCP/IP-based classification might be corrected by using various additional technical, legal, and economic criteria. For example, Voice over IP could be included in Internet governance since it is a TCP/IP-based service. However, regulatory considerations would lead it to being classified as a telephony service. The use of other attributes, in addition to the original one TCP/IP, will decrease arbitrariness in the classification process.

Here is a brief survey of four groups of classification issues and their links to TCP/IP.

First are issues directly related to the running and the management of TCP/IP, most of them part of the so-called "narrow" definition of Internet governance, including the standardisation and the management of TCP/IP, DNS, and root servers. A broad consensus exists that these issues are all part of Internet governance. While these issues are frequently discussed in Internet circles, they started appearing on diplomatic agendas only relatively recently, mainly during the World Summit on the Information Society in Geneva.

Second are issues important to the smooth running and development of the Internet, including Internet security, encryption, spam, and convergence. In this field, a grey zone exists between the Internet and ICT in general, for example in the area of the security of PCs or critical infrastructures. Encryption, like security, is an ancient concept that has existed since the early days of humanity. It has received special attention in relation to TCP/IP-based networks because of the wide dissemination of encryption tools (previously controlled by the military and state authorities) and their possible misuse by organised crime and terrorists. Spam is a new topic that emerged together with the Internet. It is difficult to draw an analogy between spam and any other topic. Paper based trash-mail exists, but does not constitute a threat requiring legal action.

Third, while TCP/IP is a useful classification criterion for everything taking place on its own layer and the layers above (Internet transactions), it is not clear how the layer below, the telecommunications infrastructure, can be classified. TCP/IP can use any telecommunications medium, and the governance of the telecommunications infrastructure should not be of direct concern to Internet governance. Whether the medium is fibre-optics, copper wire or wireless should not matter as long as Internet data can flow through it. However, the relationship

between the telecommunications infrastructure and TCP/IP (the Internet layer) is far more complex than the hierarchy that a layered structure can describe.

For example, the development of one part of the telecommunications infrastructure, wireless communication, affects many Internet governance issues, including, standards, security, and the “local loop” problem. Conversely, the explosive growth in telecommunication capacities at the end of the 1990s was triggered by high expectations of the fast growth of the Internet’s multimedia capabilities. Many other examples of the interplay between the telecommunications and the Internet layers bring some telecommunications infrastructure issues into the realm of Internet governance.

Fourth, the broadest group of issues are those related to the impact of the TCP/IP- (Internet-) based network on society, often referred to as “public policy issues.” This is not a precise formulation, because the issues are both public and private. Moreover, many legal issues extend beyond the realm of the policy sector. In Diplo’s methodological framework, these issues are classified into legal, development, economic, and socio-cultural baskets.

Most of these issues, such as intellectual property protection, crime, and content control, existed before the Internet. The reason they are included within Internet governance is that they acquired new and specific features with the development of the Internet. Applying existing regimes to the Internet is fraught with challenges.

In some cases, the Internet has triggered a structural rethinking. For example, in the case of copyright, the Internet has altered the traditional balance between the protection of the rights of authors and fair use. Technical ease in copying materials has led to the misuse of the concept of fair use and breach of copyright. The reaction of copyright holders was radical: some of their solutions, such as restricting access to materials, could completely change the current concept of copyright.

With other issues, such as jurisdiction, the main challenge has been to implement existing rules. Jurisdiction is determined according to national and international rules. However, in the case of the Internet, the problem starts with the sheer volume of international interaction and number of potential legal actions. Traditional international private law deals with a limited number of court cases, given the limited volume of international transactions. Consequently, the possibility of moulding traditional jurisdictional mechanisms to such a dynamic field as the Internet remains remote.

With yet other issues, such as cybercrime, both rethinking and implementation challenges abound. The Internet has brought about a number of new crimes. It has also become a new avenue for existing crimes, such as child pornography and fraud.

These few examples show just how challenging it will be to decide what to include under the umbrella of Internet governance.

3.2. Second Step: The Identification of Clusters/Baskets

The second step in the Internet governance process starts with the identification of the main classification clusters. Adjusting the terminology to the world of diplomacy, Diplo has adopted the term “basket” instead of “cluster.” The term “basket” was introduced in diplomatic practice during the OSCE negotiations.⁶ The following five baskets were introduced in 1997, when Diplo started developing its classification scheme:

⁶ The OSCE (initially CSCE) process consisted of three baskets: politico-military, economic-environmental, and human rights.

- 1) infrastructure and standardisation;
- 2) legal;
- 3) economic;
- 4) development;
- 5) socio-cultural.

The use of baskets facilitates the transfer of topics from one cluster to another, depending on the current situation and circumstances. The basket approach may also ease the adjustment of deliberation and negotiation methods, by providing different ways to negotiate technical and socio-cultural issues.

3.3. Third Step: Assigning Issues to Baskets

The third step involves categorising issues into one of the five baskets, depending on their main attributes. As most issues in this field are multidisciplinary, Diplo’s approach allows the assigning of more than one attribute. Attributes are identified by answering the question: WHAT is the topic about? For example, copyright is about the protection of authors’ rights: this is its main attribute. Other attributes of copyright include data protection, the enhancement of science and human creativity, support of development, and the facilitation of e-commerce. Copyright was classified in the legal basket, in accordance with its main attribute, the protection of authors’ rights, a legal right. Table 1 elaborates the classification of copyright.

Table 1: Classification of Copyright

CLASSIFICATION ATTRIBUTE	ATTRIBUTE VALUE	BASKET
Protection of authors’ rights	40	Legal
Data protection	10	Legal
Enhancement of science and human creativity (education) – fair use	30	Socio-cultural
Support of development	10	Development
Facilitation of e-commerce	10	Economic

While the first level of research focusses on attributes ascertained through answers to the question “WHAT?,” further questions will be introduced in the next phases of research: who, where, how, and when.

Diplo’s classification of Internet governance is the conceptual basis for Diplo’s overall approach to this field. Our approach consists of three main pillars: training/education, research, and the development of tools. Since its introduction in 1997, the classification has been used in courses attended by more than 300 students as well as by many researchers. Diplo has received ongoing feedback about its classification of Internet governance, which has been the basis for constant upgrades. The current classification, therefore, is based on numerous iterations as well as aggregated knowledge and experience.

Diplo’s classification will be used as the starting hypothesis for this research. Other classifications of Internet governance will be analysed and compared. The research process aims to justify, adjust, or contradict the initial classification. It should also codify and aggregate current information and research results in this field. The result should be a better and more comprehensive understanding of the problem of the classification of Internet governance.

4. OTHER INTERNET GOVERNANCE CLASSIFICATIONS

There have been few attempts to classify Internet governance, as it only gained wider attention during the recent World Summit on the Information Society (Geneva, 2003). There are two types of classifications that will be consulted in this research. The first type comprises a limited number of “explicit” classifications, intentional attempts to classify Internet governance issues. The second consists of “implicit” classifications contained in documents, websites, and other materials dealing with Internet governance.

4.1. Explicit Classifications Using Layering as the Main Approach

Most explicit approaches follow a multi-layered model, which is often used to present and explain the functioning of computer networks. This layering method has also been codified in the formal OSI model. Different Internet governance issues are usually divided between different layers.

Benkler divides the Internet itself into three layers: the “physical infrastructure layer,” the “code” or “logical layer,” and the “content layer.” William Drake suggests a binary division between those issues “pertaining to infrastructure and those pertinent to transactions and content.”⁷ He also refers to a number of other multi-layered models, including the four-layered model of Internet Protocol (IP)-based networks (applications, transport, Internet, and network access layers), and the seven-layered Open Systems Interconnection model (application, presentation, session, transport, network, link and physical layers).

Diplo has used this multi-layered approach in its illustration of the “Internet Governance Building under Construction,” where the layers are represented by the floors of the building.

Being able to show only the hierarchical relationship between the different layers is the main limitation of a layered approach. Relationships between Internet governance issues are usually more complex, involving a wide variety of non-hierarchical relationships between the layers. In order to overcome the limitations of our “building” classification of Internet governance, we introduced the “Internet Governance Cube,” which is better suited to showing the interrelationships between the different layers and baskets.

4.2. Implicit Classification Sources

The analysis of implicit sources of Internet governance classifications aims at identifying the underlying classification structures or elements that might contribute to the development of Internet governance classification.

The first group of resources containing implicit classifications consists of documents adopted during the World Summit on the Information Society (2003). Along with the two main official documents, the WSIS Declaration of Principles and the Plan of Action, this analysis will focus on the Civil Society Declaration, the Lyon Declaration and Communiqué, and the Declaration of Swiss NGOs. All of these documents address topics that are part of the Internet governance methodology. Some of them contain explicit suggestions for an Internet governance classification.

The second group of resources consists of academic and professional writings. A few recent papers have addressed the question of Internet governance classification directly.

⁷ William Drake: “Reframing Internet Governance Discourse: Fifteen Baseline Propositions,” p. 5 (available online at <http://www.ssrc.org/programs/itic/publications/Drake2.pdf>).

The third group of implicit sources consists of a number of websites. The design of any website covering the field of Internet governance requires an a priori plan, which embodies some form of classification in itself.

4.3. Documents Adopted at the WSIS

Internet governance issues are tackled in Article 49 of the WSIS Declaration of Principles. Although the phrase “the management of the Internet” is used, it is obvious from the context that what is referred to here is Internet governance. This article classifies Internet governance issues as “technical and public policy issues.” Without identifying what the public policy issues are, the declaration specifies that both national and international aspects of those issues are the responsibility of state governments. The WSIS Action Plan requests that the Working Group on Internet Governance “identify public policy issues that are relevant to Internet governance.”⁸ This is the most explicit reference to the classification of Internet governance, authorising the Working Group to prepare a classification.

The most comprehensive coverage of Internet governance is provided by the Civil Society Declaration. The Civil Society Declaration lists the following examples of issues regulated on the international level: telecommunications, the radio frequency spectrum and satellite services, international trade in services, intellectual property, information security, as well as electronic commerce. The Internet infrastructure, content and Internet identifiers (IP and DNS) are mentioned as examples of self-regulatory management. The following issues were extracted from the further elaboration of Internet governance: the management of network interconnections and traffic revenue distribution, equitable allocation of the radio frequency spectrum and satellite orbital slots, fair trade in electronic goods and services, an open public domain of information resources and ideas, the protection of human rights, consumer safety and personal privacy, financial support for sustainable e-development, linguistic, cultural, and information diversity, and finally, the curtailment of concentrated market power in ICT and mass media industries. The WSIS Civil Society Declaration provides the most comprehensive classification of Internet governance available in international documents.

4.4. Publications

4.4.1. Books and Articles

One of the most comprehensive classifications is provided in Markus Franda’s book, *Governing the Internet: The Emergence of an International Regime*. Influenced by the US Government White Paper, the book approaches Internet governance from the perspective of e-commerce. In the first chapter, “International Connectivity,” Franda addresses the following issues covered in Diplo’s classification: the telecommunications infrastructure, interconnectivity and interoperability, security of information systems and content standards. The second chapter, on global Internet connectivity, focuses on the Internet infrastructure, covering IP numbers, DNS and root servers. Economic issues are mainly covered in the chapter “Frameworks for E-Commerce and Taxation,” including: e-commerce, data protection, taxation, and consumer protection. In the fourth chapter, “Investment and Intellectual Property,” Franda focusses on intellectual property rights, including: trademarks, copyrights and patents. The next chapter, entitled “Content, Privacy and International Law,” focusses on jurisdiction, encryption and privacy. In the last chapter, “International Regimes and Internet Security,” Franda discusses the various international aspects of Internet security.

⁸ Article 13/b/ii of the WSIS Plan of Action (Geneva, 12 December 2003) (Document WSIS-03/GENEVA/DOC/5-E).

Who Rules the Net? is a compilation of articles covering a wide range of Internet governance issues with two major differences to Franda's book. Adam Thierrer and Clyde Wayne Crews Jr., the authors of *Who Rules the Net?*, choose a legal approach, while Franda uses international relations, and more specifically regime theory. The second difference is that *Who Rules the Net?* is US-centric, while Franda's book has international coverage. With the exception of some issues that Diplo places in the development and socio-cultural baskets, *Who Rules the Net?* covers all of the issues proposed by Diplo's classification. The issues are not organised in any particular order, however.

A considerable number of books and articles focus only on the "narrow," ICANN-related Internet governance issues.

4.4.2. Policy Papers

After the WSIS Declaration and Action Plan officially put the question of Internet governance on the multilateral diplomatic agenda, a number of policy papers ensued.

In February 2003, the International Chamber of Commerce (ICC) prepared an **Issue Paper on Internet Governance**, which contained a proposal for classification. The paper identifies three main components of the Internet governance regime, including: technical coordination, technical engineering, and the handling of public policy matters. Technical coordination is a broad framework, covering the development of Internet protocol standards, the administration of IP addresses, the delegation of domain names, the coordination of the root server system, and the management of procedures related to technical coordination. Within the broad area of technical coordination, the ICC paper specifies "Technical Engineering," which refers mainly to the development of Internet standards, usually carried out by the IAB, the IETF, and the W3C. Concerning the group of public policy matters, the ICC paper does not develop a comprehensive scheme but mentions a few issues as examples: intellectual property protection, taxation, privacy, trade, security, consumer protection/empowerment, education, and spam.

The UNDP published the paper entitled "**Internet Governance: A Discussion Document.**"⁹ This paper proposes a classification framework consisting of three conceptual groupings:

1. ICT governance issues, which contain as a subset:
2. Internet governance issues, which contain as a subset:
3. the administration and coordination of Internet names and numbers.

The authors propose ICT governance as a broad framework, with Internet governance issues as subsets. Following the WSIS approach, they distinguish between technical and public policy issues. Technical administration and coordination covers both the management and the administration of Internet space, including the management of IP numbers, DNS, and root servers. The authors classify the following as public policy issues: content issues (freedom of expression), questions of jurisdiction, cybercrime, cyber-security, the economics of interconnection for developing countries, privacy, e-commerce, voice over IP, universal access and service policy, the liberalisation of telecommunications, consumer protection, taxation on the Internet, and finally, multilingualism.

The Association for Progressive Communications (APC) has published two documents on Internet governance. In December 2003, prior to the World Summit on the Information Society, the APC published "ICT Policy: A Beginner's Handbook," edited by Chris Nicol¹⁰. The second

⁹ George Sadaowsky: *Global Internet Policy Initiative and Internews Network*, Raul Zambrano and Pierre Dandjinou from the UNDP; paper prepared for the United Nations ICT Task Force.

¹⁰ Chris Nicol (ed): "ICT Policy: A Beginner's Handbook," published by the Association for Progressive Communications, 2003.

document, “Internet Governance and the World Summit on the Information Society (WSIS),”¹¹ written by Adam Peake, was published in June 2004 in order to assess the main developments in this field.

“ICT Policy: A Beginner’s Handbook” is one of the most comprehensive papers in this field. The paper reflects the APC’s mission in its focus on civil society, human rights, and empowerment. It covers a considerable number of Internet governance issues. Although no explicit classification attempt is made, the way in which the book is organised reflects a comprehensive implicit classification. After the first chapter’s introductory remarks, the second chapter focusses on the Internet infrastructure, including the question of Internet numbers, Internet names (DNS), root servers, and Internet standards. This chapter also contains a particularly well-developed analysis of the economy of Internet access.

The third chapter, entitled “National ICT and Internet Policy and Regulation,” addresses the telecommunications infrastructure through a detailed analysis of a number of issues, such as telecommunications regulation and the liberalisation of the telecom market. The fourth chapter “Specific Issues in Internet Policy and Regulation,” adds considerably to the classification discussion through its coverage of issues such as gender and intellectual property, including trademarks, copyrights, and patents. Several opposing issues are coupled together, such as the freedom of expression and censorship, as well as privacy and security. Security-related issues, such as cybercrime and anti-terrorism legislation, as well as surveillance and data retention, were closely analysed. The end of this chapter focusses on the right to communicate as a new concept in the field of human rights.

The second APC paper, “**Internet Governance and the WSIS**,” written by Adam Peake, focusses mainly on the infrastructural issues, which are contained in the first basket of Diplo’s classification. The introduction offers a clear survey of the key differences in understanding the scope of Internet governance. Two schools of thought are presented: the “narrow,” focussing on governance *of* the Internet (concerning infrastructure and ICANN-related issues) and the “broad,” focussing on governance *on* the Internet (related to what the Internet provides).

The paper covers the following two issues: Internet numbers (the allocation of IPs) and Internet names (the functioning of DNS, as well as the management of country domains and internationalised domain names). Besides the core issues related to the Internet infrastructure, the publication also includes a chapter, “Internet Governance Broadly,” which deals with the following issues: Internet pricing and interconnection, spam, Internet security, and cybercrime. With the caveat that “the Working Group must take care to ensure that it does not become a ‘catch-all’ forum for discussing all pressing ICT policy issues,” the paper lists the following issues that might reasonably be added to the agenda: e-commerce, taxation, encryption, and intellectual property rights.

Many authors have warned that Internet governance should not be defined too broadly. This would increase the difficulty of conducting any Internet governance diplomacy as well as hamper the work of the Working Group.

Seán Ó Siochrú has prepared a comprehensive survey of Internet governance issues for the Social Science Research Council: “Global Governance of Information and Communication Technologies: Implications for Transnational Civil Society Networking.”¹² This report combines a broad survey of Internet governance issues and their impact on transnational civil society

¹¹ Adam Peake: “Internet Governance and the World Summit on the Information Society (WSIS),” published by the Association for Progressive Communication, 2004.

¹² Seán Ó Siochrú: “Global Governance of Information and Communication Technologies: Implications for Transnational Civil Society Networking” (New York: Social Science Research Council, November 2003): <http://www.ssrc.org/programs/itic/>.

networking. Besides the dominance of civil society, the report also has a strong focus on development issues.

Ó Siochrú divides the whole field into a three-layered typology: access, content, and control.

ACCESS LAYER	CONTENT LAYER	CONTROL LAYER
<ul style="list-style-type: none"> - Network infrastructure - ISP service providers (quality of services and affordable charges) and additional ISP-related issues (tariffs, telecentre policies, domain names and technical developments - IPv6 and ENUM)¹³ - Hardware for effective use - Software (including Free/Libre Open Source Software – FLOSS)¹⁴ - Skills and human resources 	<ul style="list-style-type: none"> - Information in the public domain - Access to government and corporate information - Freedom of information - Transactional capability (e-commerce and non-commercial) - Language - Copyrights - Trademarks 	<ul style="list-style-type: none"> - Censorship - Surveillance - Legal threats - Seizure of equipment - Arrest and prosecution of online dissidents - Disruption and destruction of ICT networks

“Louder Voices: A Report on Strengthening Developing Country Participation in International ICT Decision Making” was published by the Commonwealth Telecommunications Organisation and the Panos Institute London.¹⁵ The report asserts that, “the international ICT decision-making universe is vast” and proposes the use of a conceptualisation matrix of two dimensions (axes): the main types of issues and the main types of decision making processes. On the horizontal axis, the main types of issues, the authors also introduce a “Scope of International ICT Decision-Making,” where issues are divided into the following four main groups:

- the exchange of ICT services and products between sovereign states: the exchange of ICT products and services as well as investments in infrastructure, human capital, and intellectual property;
- the use of common ICT resources: the radio frequency spectrum, satellite orbital positions, telephone numbers, as well as Internet domain names and addresses;
- the development of ICT technology, networks, and services in all countries: technology, equipment, facilities, networks, services, applications, software, and content;
- the application of ICTs for equitable, sustainable global development: an indication of “the impact of ICT on economic, social, cultural and political structures of developed and developing countries” is included but no specific issues are identified.

The main criterion for specifying these three is the “Scope of International ICT Decision-Making,” extending from the narrow to the broad. This was one of the first attempts to conceptualise the field of ICT/Internet governance.

4.5. Websites as Implicit Sources of Internet Classifications

Before the development of a website can commence, a proper plan and design are needed. These have to be logically consistent and well organised. Materials are divided into groups, with all

¹³ Ibid., 15.

¹⁴ Ibid., 16.

¹⁵ “Louder Voices - Strengthening Developing Country Participation in International ICT Decision-Making,” the Commonwealth Telecommunications Organisation and Panos Institute London (London: 2002).

materials in a group contained on a similar level of abstraction. The level of detail should increase as users navigate deeper down into the website. The precondition for a well organised and functional website is a logically consistent concept. Thus the design of websites is very often a conscious or unconscious exercise in classification. The more consistent a website is, the easier it will be to navigate, and ultimately, the more useful it will be. This survey focusses on identifying the underlying logical and classification structures of websites dealing with Internet governance.

Websites represent the views of particular institutions and organisations. In the case of international organisations and nation states, websites are part of their official presentations. Information presented on these websites has the same status as information presented in printed documents.

My research identified a number of websites dealing with aspects of Internet governance, including the websites of the EU, international organisations (WIPO, UNDP, OECD, UNESCO, UNCTAD, WTO, the World Bank, the UN ICT Task Force, ASEAN, and APEC), as well as various non-governmental organisations such as the Internet Society, GKP, GIPI, and EFF.

A survey of issues contained in these websites is available in Annex II.

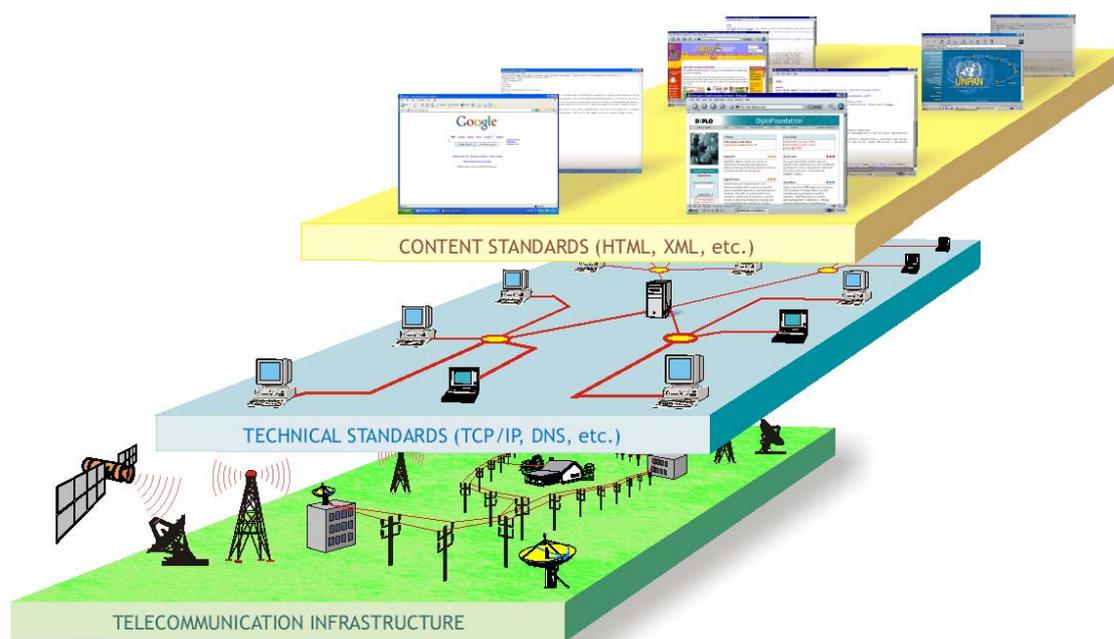
5. BRIEF DESCRIPTION OF THE FIVE BASKETS AND MAIN ISSUES

5.1. INFRASTRUCTURE AND STANDARDISATION BASKET

The infrastructure and standardisation basket includes the basic, mainly technical, issues related to the running of the Internet. In our "Building under Construction" illustration of Internet governance, the ground floor represents infrastructure and standardisation. The main criterion for placing an issue here is its relevance to the basic functionality of the Internet. There are two groups of issues here.

The **first group** includes issues without which the Internet and the World Wide Web could not exist. These issues are divided into the following three layers (see illustration):

- the telecommunication infrastructure, through which all Internet traffic flows;
- the technical standards and services (e.g. TCP/IP, DNS, SSL) that make the Internet work; on this layer we also include such issues as the role of Internet service providers and Internet bandwidth providers, as well as our Economic Model for Internet Connectivity;
- the application/content standards (e.g. HTML, XML, FTP) that enables the World Wide Web and other Internet applications and services.



Multi-layer illustration of the first group of issues related to infrastructure and standardisation

One of the Internet's strengths is the fact that technical standards such as TCP/IP remain independent of the telecommunications infrastructure (the layer below) and of the applications standards (the layer above). This independence makes the Internet very flexible.

The **second group** consists of issues related to the safeguarding of a secure and stable operation of the Internet infrastructure, including: Internet security, encryption and network disruptions/overloading, as well as various forms of misuse and abuse, such as worms, spam, and spyware.

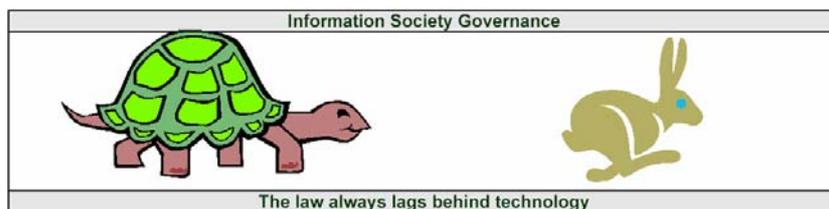
5.2. LEGAL BASKET

Every aspect of Internet governance has a legal component. The shaping of a legal response to the development of the Internet is still in its infancy. The two prevalent approaches concerning the way in which laws are developed are:

- A “real law” approach in which the Internet is essentially no different from previous telecommunication technologies, such as the telephone. Though faster and more comprehensive, the Internet still involves communication between individuals over certain distances. Consequently, the existing legal rules and techniques can be applied to the Internet too.
- A “cyberlaw” approach to the Internet that brings about new types of social relationships requiring the enactment of new “cyberlaws” for cyberspace. One argument for this approach is that the sheer speed and volume of Internet-facilitated cross-border communication hinders the enforcement of existing legal rules.

Both approaches have valid elements. The general thinking is that a considerable part of existing legislation could be applied to the Internet. In certain cases, such as trademark protection, the rules of the “real” laws would have to be adapted to the “cyber” world. Issues such as spam must be regulated by newly designed rules. The closest “real” world analogy to spam, junk mail, is not illegal.

The discussion on legal issues is divided into two parts: legal mechanisms and legal issues.



LEGAL ISSUES (what?)

- Jurisdiction
- Dispute Resolution - Arbitration
- Copyright
- Trademark
- Patent
- Cybercrime
- Digital Signature
- Data Protection
- Data Retention
- Labour Law

5.3.. THE ECONOMIC BASKET

This chapter focuses mainly on e-commerce. The important issue of the overall impact of the Internet on the modern economy is beyond the scope of this analysis.

The importance of the economic aspect can be demonstrated with the fact that the document that initiated the reform of Internet governance and established ICANN was titled, “Framework for Global Electronic Commerce” (1997). The framework states that “the private sector should lead” the Internet governance process and that the main function of this governance will be to “enforce a predictable, minimalist, consistent and simple legal environment for e-commerce.” An e-commerce centred approach is the foundation of the ICANN-based Internet regime.

The choice of a definition for e-commerce has many practical and legal implications. It influences the classification of particular transactions and the application of specific rules related to taxation, customs, investment, and accounting.

List of Issues:

- E- Commerce
- Customer Protection
- Taxation
- Customs
- Investment
- E- Banking
- E-Money
- Market and Pricing Regulation

5.4. THE DEVELOPMENT BASKET

One of the main challenges in establishing Internet governance will be to address development issues and encourage the participation of developing countries.

Almost every Internet governance issue has a development aspect. Technology is never neutral. The history of human society provides many examples of technology empowering some individuals, groups or nations, while excluding others. The Internet is no different in this respect. From the individual to the global level, a profound change has occurred in the distribution of wealth and power. The impact of ICT on development and the distribution of power have given rise to many questions:

- How will these ICT-accelerated changes affect the already existing divide between the North and the South?
- Will ICT reduce or broaden the existing divide?
- How and when will developing nations be able to reach the levels of the more industrially developed ones?

The answer to these and other questions requires an analysis of the relevance of development in the context of Internet governance.

The analysis will start with discussion on the digital divide and universal services: two issues frequently raised in the development debate and follow with an analysis of the main factors influencing the Internet and development: infrastructure, financial assistance, policy issues, and socio-cultural aspects.

List of Issues:

- Digital Divide
- Univer. Access
- Brain Drain
- Financial Support:
- Technology .Transfer
- Telecommunication .Policy

5.5. THE SOCIO-CULTURAL BASKET

Networks connecting computers existed long before the Internet. What makes the Internet different is its ability to facilitate various forms of human communication and creativity. The major Internet breakthroughs are linked to the ways in which the Internet was used for new modes of communication (e-mail, Web, multimedia). The Internet is a social as well as a technological phenomenon. It supplements traditional communication while providing new forms of communication of its own (e.g. cyber-communities). Such occurrences have led to the development of a socio-cultural aspect to the Internet. The socio-cultural basket includes some of the most controversial issues in the whole field of Internet governance, such as content control, privacy protection, and multilingualism. These issues, in particular, reflect today's most prevalent national, religious, and cultural differences.

List of Issues:

• <u>Content Control</u>
• <u>HR Freedom of Expression</u>
• <u>HR Protection of Privacy</u>
• <u>Multilingualism and Protection of Cultural Diversity.</u>
• <u>Education</u>
• <u>Youth</u>
• <u>Gender</u>
• <u>Disadvantaged Groups</u>
• <u>Indegineous.People</u>

ANNEX I: Websites of International Organisations

	African Telecommunication Union	APEC	ITU	UNESCO	UNDP	WIPO	EU – Information Society	EU – Internal Market	OECD	ASEAN	Council of Europe	UNCITRAL	EU Parliament	UN ICT Task Force	World Bank	WTO	UNCTAD
Telecommunication Infrastructure																	
TCP/IP																	
DNS Policy																	
Root Servers																	
Internet Service Providers																	
Internet Bandwidth Carriers																	
Connection Charges																	
Web Standards																	
Open Source																	
Convergence																	
Security																	
Encryption																	
Spam																	
Jurisdiction																	
Arbitration																	
Copyright																	
Trademark																	
Patent																	
Cybercrime																	
Digital Signature																	
Data Protection																	
Labour Law																	
E- Commerce																	
Customer Protection																	
Taxation																	
Customs																	
Investment																	
E-Banking																	
E-Money																	
Market and Pricing Regulation																	
Digital Divide																	
Universal Access																	
Brain Drain																	
Financial Support																	
Technology Transfer																	
Telecommunication Policy																	
Content Control																	
Freedom of Expression																	
Privacy Protection																	
Multilingualism																	
Education																	
Youth																	
Gender																	
Disadvantaged Groups																	
Indigenous Cultures																	

ANNEX II: Websites of Non-governmental and Professional Organisations

	Internet Society	APC	EFF	CDI	Centre for Cyberculture	CPSR	GIPI	African Telecommunitati	APEC	ETSI - Telecom Standards	CITEL	IETF	ICANN	Global Policy Forum	W3C	GKP	TakingITGlobal
Telecom. Infras.																	
TCP/IP																	
DNS Policy																	
Root Servers																	
ISPs																	
Bandwidth Carr																	
Connec.Charges																	
Web Standards																	
Open Source																	
Convergence																	
Security																	
Encryption																	
Spam																	
Jurisdiction																	
Arbitration																	
Copyright																	
Trademark																	
Patent																	
Cybercrime																	
Digital Signature																	
Data Protection																	
Labour Law																	
E-Commerce																	
Custom. Protect.																	
Taxation																	
Customs																	
Investment																	
E-Banking																	
E-Money																	
Market and Pricing Regulation																	
Digital Divide																	
Univer. Access																	
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