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Governing the internet, towards common regulation

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Abstract
The internet and new technologies in general are increasingly important tools for the political, social and economic life of our societies. Internet management is the result of the work of various organisations that, in many cases, are dominated by private interests far removed from the target community and public interest. This article aims to provide an overview of the regulatory scenario for the internet, as well as identify the key aspects in this debate. In this respect, and lacking a global solution, some legislative responses can be formulated and, at a practical level, technical regulation envisaged based on the parameters underlining the management of affairs of public interest, i.e. objectivity, transparency and participation, whose introduction falls to institutions within a common regulatory framework.

Keywords
New technologies, governance, regulation, internet.

Resum
Internet i, en general, les noves tecnologies, són, cada cop més, unes eines d'una gran importància per a la vida política, social i econòmica de les nostres societats. La gestió de la xarxa és fruit del treball de diverses organitzacions que, en molts casos, són dominades per interessos privats allunyats de la comunitat de destí i de l'interès general. Aquest article pretén donar una visió general de l'escenari regulador d'internet, com també identificar els elements claus del debat. En aquest sentit, i a manca d'una solució global, se'n poden articular algunes respostes normatives i, en un terreny pràctic, concebre la regulació tècnica des dels paràmetres que guien la gestió dels afers d'interès general, és a dir, l'objectivitat, la transparència i la participació, la introducció dels quals correspon a les institucions en el marc d'una regulació compartida.

Paraules clau
Noves tecnologies, governança, regulació, internet.

1. Introduction

The growing importance of new technologies in today's society has positioned the internet as one of the key points in the debate on globalisation. The internet constitutes a conglomerate of technological solutions that interact thanks to telecommunication protocols and technical standards and, in this respect, issuing technical standards becomes crucially relevant to the functioning of the internet. In this article we shall attempt to provide a brief characterisation of technical standards as an area of interest in legal terms due to their capacity to produce economic regulation and to manage economic resources. Today these functions (which have been the traditional object of public policies and state instances) are the result of the work of organisations with a private statute and with the important participation of large operators from the different areas related to new technologies.

To understand better the challenges facing democratic societies we will show, by means of three examples (ISOC/IETF, ICANN and W3C), the functioning and characteristics of these organisations. We will then examine the state of the question and the most relevant issues in the debate on the future of the internet, as well as the key points from a legal point of view, to understand better the possibilities and capacities of institutions in providing a response in terms of the general interest and in defence of the interests of citizens.

With regard to this question, governments and administrations face a significant range of challenges. Firstly, they must ensure the internet functions well, respecting the right of everyone to take part and avoid anti-competitive behaviour in its management, as well as attempting to introduce suitable objectives of a shared nature with technical standards being able to influence the capacities of use. In the domestic sphere, they must ensure a fairer distribution of resources and, especially, of the opportunities offered by the information society. The sum of these elements means that the internet is a decision-making area that goes beyond the sovereignty of a single state and a single actor, so that a complex concept emerges that will redefine the actors in their area of responsibility and in common principles and goals: governance.

2. The internet's technical standards and the centres that issue them

2.1. Technical standards: administer resources and produce economic regulation

The internet today is extraordinarily relevant for the social, political and economic life of our societies. The capacity of computer code to decide how resources are managed, or our capacities when using new technologies, constitute key elements to understanding the new dimension taken on by the debate concerning technical standards.

Data filtering or the structure of IP addresses are a couple of examples that clearly illustrate the power conferred by defining the operational parameters of new technologies. In the case of data filtering, for example, this is a technique that prioritises internet traffic, resulting from an informal consensus among internet operators to avoid congestion.[1] But this produces a regulatory problem in the classic sense as it discriminates between content producers and, ultimately, is related to the need for large operators to invest in infrastructure. With regard to IP addresses, the decision to migrate from version 4 to 6 has led to an increase in numeration resources and implicates all operators involved in managing the internet.

These two examples demonstrate that technical standards influence the management of resources offered by technology and have repercussions in terms of economic regulation. Berners-Lee himself, creator of the World Wide Web concept, has made this quite clear with a simple explanation of how the internet works, involving transmission networks, programs, machinery and content. According to Berners-Lee, modularity in engineering can be explained as a separation of horizontal markets in economic terms.[2] The effect of technical standards and, in general, of the configuration of different technological products and services might increase or decrease the capacity of the rest of the actors to sell their products. The European Commission's fine imposed on Microsoft for abusing its dominant position by not releasing the source code of its products to its rivals is also the result of this kind of problem.

Such a capacity to generate resources or influence the capacity for action may be expected for any technological development but there are some organisations that substantially determine how the internet works. The debate regarding the internet is much broader than the existence of some specific organisations (which will be examined below). However, we need to know which organisations play a leading role in the functioning of the internet and might be characterised as "internet legislators". From their creation and organisation we can extract some elements that serve to delimit the most important points in the internet debate.

2.2. Issuing technical standards from a historical/organisational perspective

At present, there are three organisations that play the most important role in determining technical standards and the management of internet resources: 1) the Internet Engineering Task Force (IETF, under the formal umbrella of the American Internet Society), which produces specific regulations regarding protocols and technical standards; 2) the Internet Corporation for Assigned Names and Numbers (ICANN, continuation of the Internet Assigned Numbers Authority), which manages the core internet servers that, distributed geographically, allocate groups of IP addresses and register domain names associated with IP addresses; 3) the World Wide Web Consortium (W3C, under the direction of Tim Berners-Lee, creator of the internet), which produces the standards for the internet, formalising document formats and computer language elements. Below we provide a brief review of the history and main organisational principles.

The IETF is not an organisation as such but can be defined as a collection of spaces for discussion and the production of technical standards. When IT professionals need to produce a technical standard or revise an old one, they get together in a working group and carry out this task. The Internet Society (ISOC) was set up to make these discussion spaces a little more formal and, to a certain extent, to protect the IETF.[3] Classic IETF products are requests for comments, the basic internet technical standards, so called because the first documents about the functioning of ARPANET started with a request for comments on a proposal.[4] There are different types and statuses defined by the RFC (informational, experimental, historic) and there is a whole procedure (similar to a legislative procedure) to apply for and revise a RFC.[5] The work is organised into different working groups and is carried out remotely, with some specific physical meetings. To carry out tasks in the IETF, the professional must form part of a member organisation of the ISOC. The ISOC has a Board of Trustees which appoints its chairperson, treasurer and secretary.

ICANN is the successor to the Internet Assigned Numbers Authority (IANA), which directed the work of managing domain names, formalising the work carried out by Jon Postel. Postel was one of the interns who took part in organising the first servers for the university network that connected to ARPANET (DARPA, the US military project which gave rise to the very first internet network, ARPANET). Being a tidy person, Postel started to compile RFCs and made lists of the servers and IP address names that interacted, gradually constructing an internet register.[6] The IANA formalised this function and the management of root servers remained in its hands, as well as the authorisation of top level domains, but these were highly complex tasks and went beyond the capacity of an organisation with a scientific orientation. Before Postel died, ICANN (formally a non-profit association domiciled in California and therefore under its civil law) took over this function thanks to an agreement (Memorandum of Understanding) with the US Department of Commerce, which would provide it with financial and logistic support and would maintain some of its powers. Today, ICANN works on two levels: the work of authorising domain names and establishing technical standards is centralised, while the management of root servers and the distribution of domain names

is decentralised into Regional Internet Registers[7] that are made up and therefore directed by telecom operators, which organise themselves and take decisions autonomously regarding the planning and distribution of IP address blocks to local registries at a state level made up of local operators. ICANN also accredits domain name registrars, companies that compete as sellers of domain names. Finally, it grants top-level domain names (e.g. the domain *.es*, managed by *Red.es*) to countries' authorities with a statute recognised by the international community, by means of an agreement that delimits the commitments assumed by the administration in managing the domains. ICANN does not have members to channel the participation of interested parties and anyone affected by its activity (or inactivity) can ask for a task to be reviewed. It has a Board of Directors that appoints the three executive members (president, administrator and secretary). Recently, ICANN revised its Articles of Incorporation with an orientation to ensure transparency and participation.[8] This review is also the result of observations made by the European Commission that, in a Communication from 2000, raised doubts regarding the organisational elements of domain management.[9]

The World Wide Web Consortium (W3C) is an initiative by the Massachusetts Institute of Technology (MIT), which proposed the creation of this organisation to Tim Berners-Lee to protect the internet in regulatory terms, with the collaboration of the European Commission, CERN and DARPA. Under the direction of Tim Berners-Lee and the administration of a CEO, the W3C is the sum of three main partners that formed a "consortium" and that, in principle, would formally hold authority for the W3C: MIT, Keio University and Inria (which was succeeded by the European Research Consortium for Informatics and Mathematics, ERCIM). Common W3C members must be legal persons that pay a membership fee on a sliding scale, depending on the organisation's character or level of income. Members can make singular contributions and help the W3C by offering personnel to carry out work at the W3C. The work of the W3C is organised into working groups that can be permanent or temporary, as well as by coordination groups. The W3C director is responsible for its organisation and strategic direction and, although there is an executive body, also takes on the main decision-making functions. There is no transparent decision-making framework and the participation of members and individuals is limited to defining standards without them being able to intervene, at least formally, in the general debates. In this way, the track record of the IANA is reproduced, which depended on one person whose knowledge and expertise are recognised by the internet community.

These three organisations give an idea of the complexity and organisational diversity involved in the technical work of defining standards and how the internet should work. These organisations were set up at a critical time in the early days of the internet and their characteristic traits do not provide guarantees of control (on the part of the public) regarding the quality of the decisions, leaving everything to the ethical standards of some professionals, in the best case scenario, and to the arbitrary decisions of commercial interests of companies with the greatest organisational capacity to be present in the debates. Under these terms, neither transparency in decisions nor in the process can be guaranteed (sometimes technical standards are in response to decisions taken informally in consensus among companies) and accountability for how the internet works is hazy.

The activity of these organisations has an eminently technical tone and is enclosed within the world of professionals, which means that, in many cases, the direction of organisations depends on the view of a single person or on the interests of large operators from a specific sector. Apart from the classic hazards of a regulatory type (capture, conflict of interest, anti-competitive practices), the functioning of these organisations produces filters and access difficulties due to the high technical level of the debates and other aspects of organisational complexity that give rise to exclusions.[10]

Internet governance organisations manage the basic resources in order for the internet to function and produce standards that can condition access to new technologies, and these issues should be within reach of all interested parties and encourage public scrutiny of the decisions taken in this respect. The importance of the activities carried out would justify the need to introduce control mechanisms on the part of the public.[11] The reform of ICANN's Articles of Incorporation, as a result of the observations introduced by European institutions, is a good example of how the working methodology can be redirected of organisations that issue technical standards. However, the internet debate is more extensive than the activity of just one organisation and this means that a global approach is required regarding the future of the internet. The World Summit on the Information Society has raised this question, among others, in the debate. This is a complex debate and with significant implications of an economic, political and social nature that required an international discussion space open to all parties involved in the good functioning of the internet: institutions, internet organisations, the private sector and civil society.

3. The debate regarding internet governance as a permanent process

3.1. The inclusive debate regarding the future of the internet at the World Summit on the Information Society (WSIS)

The context of the internet today is very different to the original university network; there are many stakeholders affected by technical standards and, as we have seen, the activity carried out by these organisations plays an important role in the conditions under which economic activity is carried out and in the distribution and exploitation of the resources that, up to now, had been decision-making areas exclusive to the public powers. As can be imagined, this question is of the utmost interest for institutions, which have attempted to defend their position in the development of technology in the process we will now review.

Given the importance of the internet to our societies, institutions have started to reflect on this. From the time when the Millennium Declaration was approved, the UN has tried to open up a debate regarding the internet as a possibility to achieve higher levels of well-being everywhere and it started to work along these lines.[12] On the initiative of the ITU, and under the auspices of the UN General Secretary,[13] a process of reflection and debate was initiated with the WSIS regarding the internet that is of the utmost interest and is the beginning of a process, surely a long one, of the transition from a self-regulation model (which we might call inappropriate) to the search for a model of shared accountability. The aim of the WSIS was clear: the idea was to start up an inclusive debate regarding the future of the internet and to guarantee human rights.[14] The event had two settings, the first in Geneva, by way of a preparatory phase, and the second in Tunis, not without controversy given the authoritarian nature of the country's political regime and its refusal to allow journalists in.

The aim of the first phase, ending with the Geneva Declaration, was to identify the actors and participants in the debate, as well as to garner the starting points, i.e. the information and common consensus that would help to organise the debate between participants. This first phase primarily involved institutions, significantly the UN and the International Telecommunications Union (ITU). These two organisations have knowledge of the areas that were to be at the heart of the debate: human rights and the functioning of technology. The UN, therefore, with more experience in holding global summits, would provide knowledge on how to tackle global problems and the complexity of handling debates that incorporate several different points of view, actors and sensitivities; for its part, the ITU, with knowledge of the technological complexity and the private sector, would provide expertise regarding the starting point, the state of the art in the area of technological development and technical regulation (remember that technological firms can play an active role in the ITU itself as "associates" or collaborators, i.e. they can take part in a study committee but the decision-making capacity is reserved for the plenipotentiaries, representatives of the member states).

So the UN's contribution would particularly make the debate inclusive and, via institutional direction (like steering), would arrange the active participation of international organisations, states, private sector and civil society from the preparatory phase.[15] The ITU would assume the technical office and administrative tasks to prepare the two summit phases: Geneva (preparatory) and Tunis (final).

In the Geneva phase, the relevant elements, initial conditions, challenges and different actors in each area were identified. The Geneva Declaration therefore starts by recognising (point 7) that the advances produced are the result of scientific communication.[16] Immediately afterwards, it evaluates the opportunities offered by new technologies in many areas that could be reduced to equal opportunity. One of the important points, which we wish to highlight, and as an introduction to the distribution of tasks among the different actors, is the reminder of the importance of public administrations, as they provide citizens with the means to access the infrastructure, information and promotion of capacities in different areas. The public powers are also assigned the task of supervising the competitive conditions to encourage innovation. Regarding the technical regulation and management of the internet, the declaration advocates management that should be "multilateral, transparent and democratic, with the full involvement of governments, the private sector, civil society and international organizations. It should ensure an equitable distribution of resources, facilitate access for all and ensure a stable and secure functioning of the Internet, taking into account multilingualism" (point 48). Finally, it recognises that "policy authority for internet-related public policy issues is the sovereign right of States. They have rights and responsibilities for international internet-related public policy issues; the private sector has ... an important role in the development of the internet, both in the technical and economic fields; civil society has also played an important role ... at community level ... ... international organizations have an important role in the development of internet-related technical standards" (point 49). Lastly, the document recognises the ethical dimensions, the value of diversity and the role of the media.

With these elements open to discussion, the second phase was carried out, which ended with a pledge (known as the Tunis Commitment). It should be noted that the start of the Summit was not free from controversy, as the authoritarian regime of Tunisia prevented several journalists from attending, highlighting the democratic shortcomings in some countries, which could become a problem when deciding on worldwide infrastructures and technologies. However, the Summit was held with the participation of representatives from the governments of the different participating countries, engineers from the private sector and representatives from civil society, who also played a leading role.

The outcome of the debate gave rise to a pledge (Tunis Commitment) based on the distribution of tasks to be carried out by each of the groups of actors involved in the process, while recognising that the debate would continue. In this way, the role of technicians was recognised, at the same time as stressing the sovereign right of states regarding international policy.[17] The Tunis Commitment therefore aims to identify the "public policy" issues: the equitable distribution of resources, universal access, technical stability and security of information exchanges, the need to combat the digital divide, both at a functional and geographical level, and multilingualism, among others.

Regarding governances, and thanks to the Working Group on Internet Governance established during the process, a consensus was achieved regarding what internet governance is. This definition was an initial attempt to reach an agreement regarding the actors involved and the functions of each one in the segments that support the existence, maintenance and development of the internet. Governance is therefore considered to be "the development and application by governments, the pri-

vate sector and civil society, in their respective roles, of shared principles, norms, rules, decision-making procedures, and programmes that shape the evolution and use of the Internet". This definition, although not explicitly contained in the Tunis Commitment, is the nearest example of a decision, consisting of creating a permanent forum of debate regarding governance based on multilateralism.

At a practical level, the Summit's decisions can be summarised into two: 1) the creation of the Digital Solidarity Fund to finance infrastructures in developing countries and to carry out the One Laptop per Child initiative, to improve access to new technologies in less developed countries, distributing computers around the world, produced at a low cost, and 2) the creation of a continual forum of debate, the Internet Governance Forum, to continue the work carried out by the WISI, defined as a forum for multi-stakeholder policy dialogue on the technical and political aspects of the internet, to foster its sustainability, robustness, security, stability and development. It does not have the authority to decide on any aspect and has a markedly technical profile. However, its working groups (dynamic coalitions) are always made up of professionals, members of governments, of civil society and international organisations. It is therefore an open debate and has established itself as a permanent one, whose characteristics are continually changing.

To date, and although the actors involved see the IGF as an opportunity to continue the dialogue established, it seems that one of the problems lies in the difficulty to take decisions. In any case, this is one of the initial moments in developing the idea of governance, to some extent establishing the idea in relation to the debate on the internet. Later on, we will see that this basic notion of governance can produce diverse views and there are proposals to make it function and evolve so as to give rise to debates and technical and social solutions. It should be noted that the notion of governance is differentiated from the notion of government, because it involves the participation of all social actors (the business sector and civil society) in debates of general interest and in public policymaking.[18] Consequently, the participation of the public and private sector will become a key element in the debate on governance in general and the internet in particular.

3.2. The normative function in governance: from inappropriate self-regulation to joint regulation?

Among the functions set up as a result of governance is the function of deciding the operational parameters of technologies, i.e. issuing technical standards. In the first section, we referred to the capacity of technical standards to determine the uses of technology. In fact, and according to Lessig, whoever defines the code can decide what can be done and what can't, and if this capacity is to be left in the hands of private powers, they will create a privatised standard.[19] The evolution of technical standards has given the internet a multidimensional nature that is flexible at a macro level but allows "code-based" controls to be established at a micro level. This characteristic gives rise to different results, something which allows controls to be established of an authoritarian type in certain countries (centralised, such as in Saudi Arabia, or privatised, as in China).[20] In democratic countries, regulatory, legislative or administrative intervention is also possible but this response is necessarily more limited, given that legislation responds to certain social values and political and economic principles and must therefore be aimed at satisfying the general interest. Protecting net neutrality is a good example of the classic capacity of normative intervention.[21] At least, the international nature of the internet and the global nature of the implications of its use have given rise to a highly complex debate that highlights the pros and cons of the different models that exist, as well as national legislative policies. For this reason, the importance of technical standards increases the interest of public institutions in global regulatory debates.

There has often been talk of the internet as a product of self-regulation. In reality, we can go further and characterise it as a "club regulation" that, according to Du Marais, is carried out by the operators of a market so that, although it is more agile, can also help to exclude.[22] However, if we take into account the fact that this is a debate in which a very small number of the actors involved in the market take part, we can conclude that this is not self-regulation in the strict sense of the term. In fact, the very definition of self-regulation is problematic for those lawyers who have taken it on. Price and Verhulst refer to this context as a 'cornucopia of institutions', due to the diversity characterising them. Moreover, it is not an industry but a group that cannot be subdivided into different sectors of an industry as it involves different but interrelated levels of activity. It is a restricted concept of self-regulation, incidentally, that does not include the end users or other participants or interested parties.[23]

So we are currently facing a context of inter-regulation that goes beyond the many different decision-making centres for technical standards (which might be seen as multi-regulation), as the various technical standards are related to each other but also to regulations of very different types, according to the definition provided by Frison-Roche.[24] Moreover, there are very different relations between the technical standards and legal regulations, situations that change also according to the legal context in which they find themselves.[25]

In this context, states have lost their normative capacity but they need to be present in the regulatory debate in order to focus the objectives, operational methodology and structure of the organisations involved in creating technical standards or managing internet resources on the general interest.[26] This need comes up against some inconveniences not only because the creation of technical standards and internet management are distributed among different organisations but also because the *status quo* depends, in part, on the policies and decisions taken by the United States government (remember that the work of ICANN is conditioned by an Agreement with the Department of Commerce). This kind of conditioning factor has given rise to the expression *Americanisation*, according to which the United States imposes a model of internet administration that the rest

of the countries follow so as not to remain outside the technological and social progress it represents.[27]

Up to now, the role of public institutions has been limited to validating, in one way or another, the private or self-regulated standard when this coincides with the objectives of public policies or doesn't challenge them, a technique Timsit has referred to as "reinventing legitimacy".[28] Some authors have clearly expressed their mistrust of this way of handling internet regulatory debates, as it does not allow general interests to be represented nor does it protect against abusive or inequitable behaviour.[29] This situation of the multi-form management of the internet is a general characteristic of globalisation and the same phenomenon occurs in many other sectors.

But there are significant deficits in terms of transparency, participation (highly asymmetrical, with notable participation by the business sector) and, in short, of legitimacy, which should be reduced through the efforts of civil society or at least by establishing guarantees that reduce this asymmetry.[30] At the same time, national administrations and regulators, which retain significant authority in the economic and telecommunications area, suffer from deficits related to efficacy and need the skill to correctly exercise the powers assigned to them, given their highly technical content. This situation is known as *equal deficits* and it refers to the mutual interdependence of national and international regulators.[31]

The action model for institutions, especially European ones, takes into account the fact that this is a critical resource, given that it is an essential instrument for economies and for citizens to exercise their rights. It should also be remembered that, when there are significant failures, citizens will demand solutions from their governments.[32] Finally, we should also note that the internet's functionality is due to its open, interoperable nature. And, obviously, everyone must be able to make their own contribution; engineers and citizens. In this context, the European Commission and Parliament advocate a multi-stakeholder model that includes and represents all parties and, in this respect, the Internet Governance Forum meets these requirements within a cooperative regulatory framework.[33]

The evolution taking place (and ICANN is a case in point) suggests a political activity aimed at taking regulatory activities towards organisational formulas that include mechanisms of greater transparency and public participation, as well as other parameters of action aimed at meeting the public's needs (multilingualism, for example). This situation reminds us of the characterisation of the flux between institutions and self-regulation characterised by Darnaculleta as "regulated self-regulation", which highlights the emergence of public intervention whose aim is to order the purposes, the objectives of private regulation.[34] There are at least several scenarios in which institutions take part directly in technical regulation and attempt to assert their needs and those of the public, participating under equal conditions with the private sector and civil society. Consequently, in some cases it might be more appropriate to talk of joint (technical) regulation.

This joint regulatory scenario constitutes a methodology that is more open to all kinds of relations, going beyond the paradigm of *command-and-control*, which is the traditional scenario, hierarchical and one-directional. Various proposals are being drawn up regarding governance, some focused on establishing the dimensions (objectives, actors, capacities and mechanisms) and others on identifying the responsible elements that operate at any given time to encourage cooperation between them and the inclusion of the rest, or others that prioritise the observance of relations between different agents. The Spanish group of experts, for its part, believes that the internet's value chain should be analysed to identify the agents, their responsibilities and the key elements in the debate, as well as the control exercised by the agents involved over each other.[35]

In short, the relevance of technical standards affects any technological development and is no longer limited to managing domain names or how servers work but all the shared mechanisms, both public and private, that affect how the internet functions, ranging from issuing technical standards to managing resources and including economic regulation. For this reason, as Professor Barnés has explained, the concept used to tackle questions related to the internet, governance, is a notion that has transcended each particular aspect and is related to the principles and methodologies used to tackle the directive processes in which governments, the private sector and civil society take part through their respective responsibilities, shared principles and decision-making processes in order to determine the development and use of the internet, and which constitutes a reaction to globalisation and to the transcending of national sovereignty.[36] In this respect, we believe the scientific view called for by Barnés is both useful and necessary, not only to introduce an interdisciplinary focus and adapt the theoretical instrumentation and administrative practice to the new requirements but also to identify those elements of general interest involved in internet governance and, in general, new technologies,[37] as well as to identify the needs and capacities of citizens and civil society in terms of the general interest.

4. Conclusions

The debate on internet regulation represents a complex scenario we have attempted to describe. The responses being provided by the different governments and administrations have been accompanied by caution, given the importance of the internet for today's societies. This debate confirms that we are not dealing with an object that is impermeable to legislative action or administrative action, but neither is it a problem that can only be tackled via the traditional instances.

The main problem lies in the fact that the power of technical standards related to the internet far exceeds the capacity of traditional technical standards to condition public and private activities. Although technical standards came to prominence due to their capacity to produce effects in terms of accountabil-

ity, for example in the area of industrial safety and the environment, the incidence of computing technical standards is much stronger: they produce regulation and distribute resources. Areas of mutual influence are starting to develop and, although some are still not very permeable, institutions are starting to demand more open, more transparent and more common technical regulatory frameworks.

At the same time, knowledge and involvement in technical regulation allow public administrations to adjust their activities to the new requirements generated by new technologies and to the new problems resulting from these. To tackle this, such technical knowledge must be integrated within the administration's understanding of the situation, and old and new measures must be used to defend the rights of citizens and general interests. In this way, the administration will be more effective in achieving its objectives in a society that is increasingly calling for democratic self-governance to defend the general interest and equal opportunities, as well as full involvement in political, social and economic life.

The notion of governance represents a compromise that hints at a complex web of relations and responsibilities. Its very definition is complex because, although it repositions each actor with its accountabilities, it is difficult to clearly define to what extent an actor can demand action from another or the legitimacy of one action compared with the rest. In fact, the very conception of governance may be dynamic and those that, at any particular moment, are the main agents in detecting a problem might very well form part of the solution in another situation. In any case, the debate that started in the first decade of the 21st century is leaving behind quite an interesting legacy that, when the internet was in its infancy, was crucial for its development: no internet node can decide for the rest and, on the other hand, all nodes can work together to increase its operational capacity, efficiency and, especially, to ensure it remains permanently open to those elements that are not exclusively technical, which are a common ground and a guide for its destiny: a free, equal and shared internet.

Notes

1. The basic standards related to data filtering are included in request for comments (RFC) no. 2309 and 2474 and were produced by professionals belonging to companies with interests in this area, especially by Cisco. This situation, which is constantly repeated in defining technical regulations, could be a source of distortions that we identify as distortions of competition and conflicts of interest.
2. Berners-Lee, T. *Tejiendo la red*. Madrid: Siglo XXI de España Editores, 2000, p. 121.
3. Solá, J. "Prólogo a la edición española". In: Berners-Lee, T. *Op. cit.*, p. IX-XIII.
4. This name makes sense given the context in which the internet started to be built. The first engineers were university lecturers who left part of the work in the hands of postgraduate students who, on the one hand, knew that the army was heading the project and, on the other, that at any time the lecturers might give their opinion. Hence the now famous statement in RFC no. 3, relating it to May '68: "These standards (or lack of them) are stated explicitly for two reasons. First, there is a tendency to view a written statement as *ipso facto* authoritative, and we hope to promote the exchange and discussion of considerably less than authoritative ideas. Second, there is a natural hesitancy to publish something unpolished, and we hope to ease this inhibition". Crocker, who wrote the note, claims to have spent all night writing the text. This is surely one of the most interesting episodes in the history of the internet, which would give it a libertarian air that, whether it's true or not, has given the internet an unprecedented openness and flexibility. The only existing reference can be found at: <http://www.eumed.net/cursecon/ecoinet/conceptos/Crocker.htm>
5. Consult RFCs no. 2026 (type of RFC and procedure) and 3935 (functioning of the IETF).
6. See a review of his contribution to the internet: <http://www.eumed.net/cursecon/ecoinet/conceptos/Postel.htm>
7. There are five regional internet registries (RIR): AfriNIC, which covers the geographical zone of the African continent; APNIC, for the Asian and Pacific zone; RIPE, for Europe; ARIN, for North America, and LACNIC, for Latin America and the Caribbean. These RIRs work independently and can establish additional filters to participation, such as the need to have the backing of an RIR member.
8. The ICANN Articles of Incorporation can be consulted at <http://www.icann.org/>, in the "Documents" section.
9. European Commission communication to the Council and Parliament regarding the organisation and management of the internet. Questions on European and international policy 1998-2000, of 11 April 2000 (Document COM 2000, 202 final). <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2000:0202:FIN:EN:PDF>
10. See Peake, A. *Internet Governance and the World Summit on the Information Society (WSIS)*. [Online]. Association For Progressive Communications, 2004, p. 16. <http://www.apc.org/es/pubs/issue/internet-governance-and-world-summit-information-s>. [Consulted: 15 July 2011]

    It's worth noting that Adam Peake has played an active role in ICANN since it was set up in 2000.
11. Carotti, B. "L'ICANN e la governance di Internet". *Rivista trimestrale di diritto pubblico*, no. 57/3 (2007), p. 683 and 721.
12. For a more exhaustive explanation of the UN's first steps regarding this issue, see Pérez, J. "Gobierno de las tecnologías de la información y las comunicaciones". In: Pérez, J. (coord.). *La gobernanza sobre Internet. Contribución al debate mundial sobre la gestión y el control de la red*. Barcelona, Madrid: Ariel - Fundación Telefónica, 2010, p. 25 and sub.
13. The holding of a World Summit on the area is an initiative agreed in 1998 by the ITU Plenipotentiary Conference (Reso-

lution 73, Minneapolis, 1998), and its Secretary-General made a proposal for a summit in two phases, which was adopted by the UN General Assembly (Resolution 56/183).

14. In accordance with the UN General Assembly Resolution that gave rise to the WSIS (Resolution 56/183, of 21 December 2001, point 5), the preparatory committee, made up of state representatives, had to define the types of participation of other stakeholders as well as encourage the contribution not only of UN bodies, international organisations and states but also organisations from civil society and the private sector.

15. In accordance with the Resolution (Resolution 56/183, of 31 January 2002), of the UN General Assembly, the preparatory committee, made up of representatives from the Member States, had to decide on the modalities of the participation of other stakeholders, as well as encourage contributions not only from UN bodies, international, states, civil society organisations and the private sector. "5. *Encourages* effective contributions from and the active participation of all relevant United Nations bodies, in particular the Information and Communication Technologies Task Force, and encourages other intergovernmental organizations, including international and regional institutions, non-governmental organizations, civil society and the private sector to contribute to, and actively participate in, the intergovernmental preparatory process of the Summit and the Summit itself".

16. Document WSIS-03/GENEVA/4-S, of 12 May 2004.

17. Tunis Commitment, 18 November 2005, Document WSIS-05/TUNIS/DOC/7-E. Point 9: "**We reaffirm our resolution** in the quest to ensure that everyone can benefit from the opportunities that ICTs can offer, by recalling that governments, as well as private sector, civil society and the United Nations and other international organisations, should work together to: improve access to information and communication infrastructure and technologies [...]".

18. Communication of the Commission of the European Committees, 25 July 2001. *European governance. A white paper*. COM (2001) 428 final. "The White Paper proposes opening up the policy-making process to get more people and organisations involved in shaping and delivering EU policy. It promotes greater openness, accountability and responsibility for all those involved. This should help people to see how Member States, by acting together within the Union, are able to tackle their concerns more effectively".

19. This characterisation of technical standards can be found in Lessig, L. *El código y otras leyes del ciberespacio*. Buenos Aires: Taurus. 2002, p. 59 and 125. Later on, Lessig distinguished between constitutive binary code - which helps to create spaces, determining the possibilities of interaction - and derived code, i.e. the capacity of the network to transmit information. Lessig, L. *Code: version 2.0*. New York: Basic Books, p. 56 and sub. and 257.

20. Boas, T. C. "Weaving the Authoritarian Web. The Control of Internet Use in Nondemocratic Regimes". In: Zysman, J.; Newman, A. (ed.). *How Revolutionary was the Digital Revolution? National Responses, Market Transitions, and Global Technology*. Stanford: Stanford University Press, 2006, p. 370-371.

21. The technical ability to condition access to content being transported has led to a redefinition of net neutrality by the US Federal Communications Commission (*Open Internet Order* 2010, clarifying the postulates of the Broadband Police Statement, approved in 2005) in response to the intentions of telecom operators to create differentiated services, and recently it has been the object of legislative measures in Chile, Italy and the Netherlands, among others.

22. Du Marais, B. "Analyses et propositions pour une régulation d'Internet". *Lex Electronica*, vol. 7, no. 2, 2002.

23. Price, M. E.; Verhulst, S. G. *Self-regulation and the Internet*. The Hague [Holland]: Kluwer Law International. 2005, p. 14-15.

24. Frison-Roche, M. A. "Les nouveaux champs de régulation". *Revue Française d'Administration Publique*, no. 109, 2004, p. 63.

25. The United States, for example, suffers from constitutional restrictions in the area of technical standards, so that legal regulations must adopt technical standards within the content of the legal regulations. The European Union's approach to self-regulation is more focused on coordination with the private sector to achieve the goals that correspond to the public powers. Newman, A. L.; Bach, D. "Self-Regulatory Trajectories in the Shadow of Public Power: Resolving Digital Dilemmas in Europe and the United States". *Governance: An International Journal of Policy, Administration, and Institutions*. Vol. 17, no. 3, 2004, p. 394-395.

26. Maisl, H.; Du Marais, B. "Gouvernance de l'Internet et modèles de développement de l'Administration Électronique". *Revue Française d'Administration Publique*, no. 110, 2004, p. 211-216.

27. Lavenue, J-J. "Internationalisation ou américanisation du droit public: l'exemple paradoxal du droit du cyberespace confronté à la notion d'ordre public". *Lex Electronica*, vol. 11, no. 2 (Autumn 2006), p. 15.

28. Timsit, G. "La re-invention de la legitimité". In: Bridel, P. (ed.). *L'invention dans les sciences humaines: Hommage à Giovanni Busino*. Paris: Labor et Fides, 2004. See, in the same respect, Delmas, R. "L'Internet, gouvernance d'un monde incertain". *Revue Française d'Administration Publique*, no. 110, p. 220.

29. "Who will represent those involved in the co-production of policy? Who will represent the general interest? How will abuse of power be avoided? And how will existing inequalities with regard to power and know-how between citizens be compensated?" These are the questions raised by Van Klink, B.M.J.; Prins, J.E.J. *Law and Regulation for the Information Age*. Amsterdam: IOS Press. 2002, p. 79. They immediately answer that the function of governments is to make sure these processes are not distorted, formally limiting the conditions of this normative co-production.

30. Cassese, S. "Administrative Law without State? The Challenge

of Global Regulation". *New York University Journal of International Law and Politics*, no. 3/2005, 663.

31. Battini, S. *Amministrazioni nazionali e controversia globali*. Milan: Giuffrè Edittore, 2007, p. 178.

32. Communication from the Commission to the European Parliament and the Council, 18 June 2009. Internet governance: the next steps [COM(2009) 277 final]. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2009:0277:FIN:EN:PDF>

33. According to European Parliament Resolution of 15 June 2010 on internet governance: the next steps [2009/2229 (INI)], the European Parliament defined this model as follows: "internet governance should be based on a broad, balanced public-private sector model, avoiding dominance by any individual entity or group of entities and attempts by state or supra-national authorities to control the flow of information on the internet, while interacting with multi-stakeholder processes on internet governance which continue to provide an effective mechanism for promoting global cooperation" (point 9). It should be noted that the Parliament suggests the Commission should ensure civil society is represented in the IGF as well as other internet governance organisations (point 40).

34. Darnaculleta, M.M. *Autoregulación y derecho público: la autoregulación regulada*. Barcelona: Marcial Pons, 2005, p. 443.

35. Pérez, J. *Op. cit.*, p. 32-37.

36. Barnés, J. "Sobre el derecho administrativo de la información". *Revista Catalana de Dret Públic*, no. 35/2007, p. 151-152.

37. Barnés, J. *Op. cit*. p. 180 and sub.