Internet Governance

Policy Networks as a Model for Governance of the Technical Environment[1]

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Abstract The regulatory powers of states and international organizations are challenged by the dynamics of globalization and privatization. As a consequence formal *government*, the traditional hierarchical form of exerting regulatory powers, is extended with and in some cases even replaced by more heterarchical forms of *governance*. The Internet is a powerful catalyst for these dynamics. Technical characteristics of the Internet give rise to processes of user empowerment and government disempowerment. These processes have caused a shift in the balance of powers concerning political decision making about the technical environment. Policy networks of experts and stakeholder representatives are gaining influence in the regular political decision making processes of states and international organizations concerned with the technical environment. In the European Union a first case at hand will be the political decision making around downloading of digital information (the ACTA negotiations and the translations of the negotiation results into European regulations).

Globalization and privatization – from government to governance

Globalization and privatization reduce the traditional powers of states and international organizations of states.[2] Formal and hierarchical oriented forms of governance are supplemented or even replaced by informal and heterarchical oriented forms of *governance*[3] (some even argue anarchic, although this is of course a contradictio in adjecto). The concept of governance is used here in the usual broad sense of regulation and enforcement.

Internet governance – user empowerment

The Internet is a catalyst for these processes of globalization and privatization, because many of their underlying factors are present to a great extent on the Internet.[4] These are in particular the possibilities for cross-border activities, the accessibility of the Internet to many parties (emancipation of private parties by means of a larger and equal access to the

[1] The research described in this paper is part of the subprogram Internet Governance (5c) of the research program of the Groningen Centre for Law and Governance (GCLG). See http://www.rug.nl/gcl/onderzoek/GCL-onderzoeksprogramma2010(EN).pdf The paper is for the greater part based on my original theoretical contribution to a phd proposal called "Internet Governance and Social Networks" (applicants C.N.J. de Vey Mestdagh, N.E.H.M. Zeegers, co-applicant T. Nowak). Substantial parts of the text have been translated by Klaske de Vries and Marije Bouma.
[2] Cf. Dekker & Werner (2004)
[3] Cf. Heere(2004)
[4] Cf. Mifsud (2008), Rijgersberg (2010)

Internet) and the accessibility of technical instruments of power to many parties (means of communication and information and knowledge-processing technology and by that even means of implementation and enforcement of norms).[5] These technical factors constitute important reasons for the accelerated globalization and privatization in the past decades. Within this context, the physical and the digital world are not separated, but rather intertwined; the Internet and the underlying technology having the earlier described catalytic effects. The combination of these factors is commonly called *user empowerment*, which refers to the increased technical opportunities for private organizations and private individuals that enable them to promote their interests more directly and powerfully. This promotion of interests can either occur by informal means of self regulation or by direct participation in decision making processes in regulatory private organizations (see the examples of ICANN and the IETF below) and sometimes even public organizations (see the example of the ITU below).

Internet governance – government disempowerment

At the same time, technical features of the Internet lead to *government disempowerment*.[6] These features consist of (1) a number of fundamental technical Internet characteristics, (2) the knowledge-intensive nature of the norms which determine activities in a technical environment and (3) the way these norms are implemented in a digital environment.

(1) Besides the global and decentralized character of the Internet, the fundamental technical characteristics also include the *end to end design* and *the packet switching technology* applied. The former means that the network itself provides only the most basic operations (connect and transport) and that all other processing of information is done by software and computers at the end points of the network, i.e. on the respective computers of the sender and the recipient of the information. Packet switching implies that a single continuous connection between sender and receiver does not need to be open in order to communicate. The information is divided into packets which "choose" different routes through the network. These fundamental technical features make the application of hierarchic instruments of power difficult. A monopoly on information processing and controlling information flows is difficult or even impossible.[7]

(2) The effective regulation of activities in a technical environment requires specialized knowledge. As a result, in many Internet institutions one observes a growing influence of Internet experts and expert organizations on regulation. Regulation of the identification of (the computers and websites of) participants on the Internet takes place for example by a private organization, the Internet Corporation for Assigned Names and Numbers (ICANN). The decision making in this organization is strongly dominated by technical expertise.[8] The same applies to the Internet Engineering Task Force (IETF), which is also a private organization. The IETF is responsible for the so called Internet Protocol (IP) which regulates the addressing and routing of communication through the Internet.

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[5] Concerning among others the possibilities for anonymization of persons, encrypting and relocation of communication, and also self regulation by Internet communities using technical means, see among others de Vey Mestdagh (2008)

[6] Compare. Rijgersberg & de Vey Mestdagh (2008)

[7] The recent WikiLeaks affair and the "Wende" in Northern Africa are both illustrative

[8] De Vey Mestdagh & Rijgersberg 2007

(3) A third feature of governance in a technical environment is the way norms are implemented, namely as part of the technical environment. The method of identification (determined by ICANN) and addressing and routing (determined by IETF) has multiple normative effects. The technical implementation determines the possibility of access to the Internet (who can have access, in which way and from what locations), the ability to communicate confidentially or even anonymously (affecting privacy, intellectual property, cybercrime) and the possibility for cross-border activities (affecting jurisdiction). This phenomenon is also denoted by the phrase *code is law.* [9]

User empowerment – government disempowerment – policy networks

User empowerment and government disempowerment appear to shift the focus of political decision making about the technical environment. From more hierarchical oriented control mechanisms, where states and organizations of states are the most important actors and in which political interests and political power are the decisive factors, to more heterarchical or horizontal oriented control mechanisms. On the one hand, these latter mechanisms are based on market forces and markets in which the economic actors are the most important participants and in which economic interests and economic power are the decisive factors. On the other hand (as explained above) these control mechanisms are increasingly based on consultation and negotiation, in which social networks of individuals and private organizations play a key role and in which private interests and the strength of arguments (technical knowledge) are decisive. The new balance of power in political decision making can be described as a heterarchical social network in which the influence of (organizations of) states and larger market parties decreases and the influence of smaller market parties (companies and consumers) and private individuals increases. The private individuals are thereby often united in so-called communities of interest, where shared interests are paramount, or in epistemic communities,[10] where expert knowledge is the most important element.

The influence of this social network may also have institutional consequences. More and more often, regulatory and law enforcement organizations in the technical environment are private (in stead of public) organizations that are controlled by the stakeholders of the processes of regulation and enforcement. Stakeholders are parties that have an interest in realizing the goals of these organizations. For example, companies and organizations, but also states and organizations of states participate in these private organizations. In the latter case, the state or organization of states represents the interests of its citizens in the private organization, but is not superordinated to it or to the other stakeholders. ICANN and IETF (introduced above) are good examples of such organizations.

The shift from government to governance and the important and sometimes even decisive role of having (technical) knowledge is not only found in research in the field of Internet Governance. The influence of knowledge on regulation and enforcement is also

[9] Cf. Lessig (1999)
[10] See Haas (1992)

established by research in the fields of self regulation[11], multilevel governance[12] and neo institutionalism.[13]

Social network theory and in particular the theory with regard to policy networks, focuses on the characteristics of the relationships between actors which are, in the case of policy networks,[14] involved in political decision making. The investigated features of these relationships are for example the super-ordination, sub-ordination or co-ordination of the actors, their centralized or decentralized position in the network and the frequency and the degree of influence of their individual relationships. Social network theory provides an effective tool to analyse these relations. The results from research into the influence of policy networks on the Internet suggest that the relative knowledge position of the various actors has impact on whether they can influence decision making within these policy networks.

Knowledge-oriented policy networks and traditional institutions: the EU – the ACTA case

Globalization and privatization are, as concluded above, characteristic of the governance by Internet institutions of activities within the technical environment of the Internet. For these (often globally active, non-territorial and private) Internet institutions, the phenomena of user empowerment and government disempowerment entail that interest-oriented and especially knowledge-oriented social networks increasingly influence governance of the Internet. The question is whether this is also the case in the process of political decision-making in more traditional (territorial oriented, public) institutions in guiding the activities of citizens in a technical environment, in particular the Internet. For a number of internationally operating institutions, this indeed seems to be the case. The cross border and technical nature of telecommunications has for example led to the foundation of the International Telecommunication Union (ITU). The ITU is a UN organization consisting of (192) governments and the private sector (more than 700 companies and interest groups) that have an important influence on the regulation of telecommunication networks and its services. Technical knowledge is crucial in the design, implementation and enforcement of these regulations.[15] Moreover, these regulations do not only cover cross-border issues, but also the greater part of the norms applied domestically.[16]

In the coming years the European Union will also have to take political decisions that concern the activities in technical environments and in particular the Internet, either

[11] See among others de Vey Mestdagh & Rijgersberg (2010b) about global self regulation, Van den Hoogen & Nowak (2010) about self regulation in the EU and Pollack (1997) about principal-agent theory and knowledge deficiency of the principal as an explanation for the delegation of regulatory powers

[12] See among others Hooghe & Marks (2001), Marks, Hooghe & Blank (1996) and Enderlein, Wälti, & Zürn (2010) about multilevel governance and knowledge asymmetries as an explanation for multilevel governance in among others the EU

[13] Cf. DiMaggio&Powell (1983) and especially Pollack (1997) about rational choice institutions

[14] Cf. Peterson (1992) en Peterson (1993)

[15] Bos (2003)

[16] The arrangements in the ITU are for example the starting point for the national frequency policies of many states (the division of the frequency spectrum in frequency bands, the actual use of these frequency bands etc.) See a.o. The Dutch Nationaal Frequentieplan 2005 cons. 16-08-2010

because the object of the activities has a technical character (digital information), or because the medium has a technical character (digital communication).

For example, in the European Union there is no effective or uniform regulation with regard to downloading digital information yet.[17] Intellectual property rights and especially copyrights are regulated traditionally by means of *absolute rights* and thus by the government. Digital storage and communication of information have made the enforcement of this kind of absolute rights problematic. The U.S. and Japan have taken the initiative for a global settlement of this issue, the so called Anti-Counterfeiting Trade Agreement (ACTA). ACTA is based on the idea that a download ban can actually be enforced and is aimed at introducing and strengthening the enforcement of such a ban. In the context of the ACTA negotiations controversial measures have been discussed, such as the so called "three strikes you are out" system, which prescribes that after three times of illegal downloading, access to the Internet should be denied.

The original secret negotiations with the EU have been strongly criticized by the European Parliament.[18] The European Parliament called for transparency and condemned the three strikes system as it is incompatible with fundamental rights, such as the freedom of expression and the right to privacy. In their most recent joint statement of 15 November 2010[19] the negotiating parties (including the EU) commit themselves to adopt measures that ensure effective enforcement of intellectual property rights in the digital environment.[20] This case is interesting because of the global, cross-border character of these issues, the principled stand of the European Parliament and a number of interest groups and the technical issue of enforceability.

The question is whether this case and many others, in which the European Union has to take decisions with regard to regulating the activities in a technical environment, in particular the Internet, will show the same trends as we have seen before in private Internet institutions such as ICANN and IETF as well as in international public organizations such as the ITU. If social interest networks and knowledge networks appear to play a larger role than usual in these decision making processes about the technical environment in the EU, it would be interesting to investigate whether the explanations given in the case of Internet institutions also hold in these cases.

Further research could focus on the ACTA case, discussed earlier. However, the EU is confronted with a host of other issues concerning the regulation and enforcement of activities in a technical environment, which means that there is a wide range of cases available. Another issue in the EU that has not been dealt with yet, concerns the legal restriction of activities of EU companies which violate fundamental information rights outside the EU (for example, the cooperation of Internet companies, such as Nokia Siemens Networks with the Iranian government in monitoring the Internet and outside the EU of Google with the Chinese government in censoring the Internet). The EU does not have a clear policy in this area yet. Economic interests and human rights issues are

[17] In France a convicted downloader can be disconnected from the Internet on the basis of the so-called Loi Hadopi, while the European Parliament has condemned this

[18] Resolution of the European Parliament of 10 March 2010 about transparency and the state of affairs at the ACTA negotiations, see especially consideration 11. http://www.europarl.europa.eu/sides/getDoc.do?-pub-Ref=-//EP//TEXT+TA+P7-TA-2010-0058+0+DOC+XML+V0//NL&language=EN

[19] http://trade.ec.europa.eu/doclib/press/index.cfm?id=659&serie=384&langId=en

[20] Art. 2.18: Enforcement in the digital environment, ACTA 15-11-2010

treated separately, and economic interests prevail in most cases.[21] In this area the voices from the social network become stronger, inter alia through resolutions of the European Parliament.[22]

Conclusion

Research into governance of *the Internet* by globally active, not territorially-bound, private Internet institutions indicates that social networks of interested parties (stakeholders) and experts have obtained a decisive influence on regulation and enforcement of regulations. The explanation for this can be found mainly in technical characteristics of the environment to be regulated (user empowerment and government disempowerment). The actors, whose position is more strongly determined by their access to (technical) knowledge, turn out to have a greater influence. These are often interest organizations in which (technical) expertise is the main decisive factor for the position these organizations take in the process of political decision making.

Further research is needed to establish whether these developments also affect the political institutions beyond the Internet, when these are confronted with legal questions about (acting in) technical environments, in particular the Internet. In the next few years, a number of important political issues of this type will be on the agenda in the EU. The first case that presents itself are the above-mentioned ACTA negotiations and their implementation in the EU.

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[21] See for a more elaborate exposé about the coherence between technology, economic law and human rights de Vey Mestdagh (2010a): Advancing freedom of expression in cyberspace through policies regulating trade and communication networks

[22] See among others the Resolution of the European Parliament of 6-7-2006 about the freedom of speech on the internet. http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P6-TA-2006-0324&-language=NL.

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