5. Switzerland's Particular Role in the Internet Governance Processes

Switzerland has been very much involved in the Internet governance process since its beginning, amongst others by defending principles of participation, transparency and accountability in Internet governance. Due to its long-lasting experience in consensus-finding and policy-making in a multicultural and multilinguistic environment and with its participatory and decentralized direct-democratic governance system, Switzerland is a unique contributor to the ongoing Internet governance discussion. Following a summary of Switzerland's commitments in the Internet Governance process within the UN framework, light will be shed on Switzerland's politics and governments with a focus on its specific input as for instance access to infrastructure and e-participation.

Switzerland is also well positioned to contribute to the Internet governance debate due to the high Internet penetration. Both access and use of the ICT have significantly evolved over the last years. Internet has clearly become a daily tool for the ordinary Swiss inhabitant: around 74 percent of Switzerland's households have Internet access,[192] i.e. more than 83 percent of the population have Internet access at their homes.[193]

5.1 Swiss Participation in Processes and Organizations

5.1.1 Swiss Input into the WSIS Process

As previously mentioned, as a step towards developing a global awareness on ICT's new capabilities[194] the UN General Assembly on December 21, 2001 adopted a resolution[195] regarding the conduct of a two-tiered World Summit on the Information Society (WSIS) being convened under the patronage of the former Secretary General of the UN, KOFI ANNAN; the first phase took place in Geneva from December 10 to 12, 2003 and the second phase in Tunis from November 16 to 18, 2005. The resolution, among other things, called on governments to actively participate in Summit preparations and to be "represented in the Summit at the highest possible level".[196]

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[192] Swiss Federal Office for Statistics (SFOS), Internetzugang der Haushalte, Internationaler Vergleich 2008, available at: http://www.bfs.admin.ch/bfs/portal/de/index/infothek/lexikon/bienvenue___login/blank/zugang_lexikon.topic.1.html; see „So tickt und klickt die Schweiz", SonntagsZeitung, September 20, 2009, at p. 93/94, also available at: http://www.sonntagszeitung.ch/multimedia/artikel-detailseite/?newsid=98553.

[193] This encompasses both, broadband Internet access and access to the Internet via analogue connections.

[194] Abriss über das Engagement der Schweiz als Gastland der ersten Phase des WSIS im Dezember 2003 in Genf, at p. 1, available at: http://www.bakom.admin.ch/org/international/01936/01988/index.html?lang=en&print_style=yes.

[195] A/Res/56/183, supra note 31.

[196] A/Res/56/183, supra note 31, at p. 2, at para 4.

Hosting the first phase of the WSIS, the Government of Switzerland, led by the Federal Office of Communications (OFCOM), was the driving force behind the whole WSIS process,[197] e.g. by mobilizing important partners such as the World Bank, the World Economic Forum (WEF) and the UN ICT Task Force and by making available substantial resources and commitments; e.g. the Government of Switzerland invested an amount of about CHF 20 million[198] to hold the WSIS and assured responsibility for the logistic and operational preparation.

The government of Switzerland facilitated the discourses between the WSIS stakeholders in organizing events such as meetings, discussions and workshops in conjunction with the Summit by providing conference rooms and facilities for this purpose at Geneva Palexo.[199] While the organizers of each event were responsible for the content and the funding of their event, the government of Switzerland was responsible for the overall logistical coordination of these events.

WSIS' main objective was the provision of an open platform for discussions and exchange between the various stakeholders, i.e. government representatives, the private sector and civil society, to discuss specific issues that have been arisen within the information society, primarily to develop and foster a clear statement of all stakeholders' political will and, furthermore, to establish the foundations for an Information Society encompassing the interests of all parties involved[200].

During the first phase of the WSIS, which was attended by 11,000 participants from 175 countries[201], some main issues have been addressed by Switzerland, in particular cultural diversity, regulatory framework conditions, e-commerce, media availability and poverty reduction by use of ICT. As a result of the discussions and Summit events around the core policy discourses – for the moment adjourning the issues of Internet Governance and ICT's funding in the poorer countries – the Geneva Declaration of Principles and the Geneva Plan of Action were adopted on December 12, 2003. The Geneva Declaration developed a shared vision of an "inclusive, people-centred and development-oriented Information Society where everyone can create, access, utilize and share information and knowledge, enabling individuals, communities and peoples to achieve their full potential in promoting their sustainable development and improving their quality of life, premised on the purposes and principles of the Charter of the United Nations and respecting fully and upholding the Universal Declaration of Human Rights."[202] The Geneva Plan of Action defined a whole range of actions to be taken by the international community until 2015 to make this vision a reality.[203]

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[197] W. LUDWIG, Zum Stand der Schweizer Informationsgesellschaft, Global Information Society Watch Report 2008, at p. 2, available at: http://www.medienheft.ch/politik/bibliothek/p09_LudwigWolf_01.pdf.
[198] Abriss über das Engagement der Schweiz, supra note 194, at pp. 2/3.
[199] See World Summit on the Information Society: Geneva Phase, available at: http://www.itu.int/wsis/geneva/events/index.html
[200] See Basic Information: About WSIS, available at: http://www.itu.int/wsis/basic/about.html.
[201] See Basic Information: About WSIS, supra note 200.
[202] WSIS, Geneva Declaration of Principles, 2003, supra note 34, at para 1.
[203] WSIS, Geneva Declaration of Principles, supra note 34.

Paras 48-50 of the Geneva Declaration set the basic principles ("WSIS Geneva principles") for a future Internet Governance model: "The international management of the Internet should be multilateral, transparent and democratic, with the full involvement of governments, the private sector, civil society and international organizations."[204] In the last weeks before the summit, Switzerland acted as a main facilitator in the negotiations on the issues where no consensus had been reached. The paragraphs on Internet governance were part of those that were only agreed on the very night before the opening of the Geneva summit, with the Swiss diplomat Markus Kummer as facilitator. Considering Geneva as being a starting point all involved stakeholders agreed to discuss the remaining issues subsequent to the first phase of WSIS within the framework of working groups.

In addition to hosting the first phase of the WSIS, the Swiss Government, under the leadership of the Swiss Agency for Development and Cooperation (SDC) organized the multistakeholder ICT for Development (ICT4D) platform that was held in parallel with the political summit in Palexpo Geneva and gathered more than 38'000 visitiors form all over the world.[205]

As its further contribution to the ongoing discussions Switzerland has been an active partner in the working groups preparing the second phase of WSIS in November 2005 in Tunis by hosting the second meeting of the Preparatory Committee in Geneva.

5.1.2 Swiss Input into the WGIG/IGF Process

In 2004, the Swiss diplomat Markus Kummer was proposed by the UN Secretary General to chair the UN Working Group on Internet Governance (WGIG). The WGIG held several meetings and consultations in Geneva in 2004 and 2005. Subsequently, in early 2006, Markus Kummer was appointed as the head of the Executive Secretariat of the UN Internet Governance Forum (IGF). Switzerland has been a key contributor to the financing of the IGF Secretariat, domiciled in Geneva, since its beginning in 2006. Besides the fact that the IGF is based in Switzerland, many other international organizations are based there, too, most of them in Geneva, as is for instance the International Telecommunications Union (ITU).

Switzerland is not only contributing resources to the IGF process, but it is also actively contributing to the substantive discussions at the IGF meetings and in between. Switzerland has been co-organizing a number of workshops and other events in the IGF meetings and participated actively in many of them. In the area of Internet Governance, the Swiss government delegation is respected as one that regularly comes up with constructive proposals and tries to build bridges between stakeholders with diverging opinions. Switzerland is also acting as the regional coordinator for the WEOG (Western European and Others Group) group of

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204   WSIS, Geneva Declaration of Principles, supra note 34.
205   http://www.itu.int/wsis/geneva/coverage/statements/ict4d-platform/s01.html

countries in the IGF multistakeholder advisory group (MAG) since 2006 and a vice-director of OFCOM is a member of the MAG since 2008.

5.1.3 Swiss Input in EuroDIG

As previously mentioned, Switzerland, led by OFCOM, was also, together with the Council of Europe (CoE) and other governmental, business and civil society representatives[206], one of the initiators of the European Dialogue on Internet Governance (EuroDIG), a Pan-European multistakeholder discussion forum related to the IGF. Within its first meeting held in Strasbourg in October 2008 the participants inter alia illustrated the benefits of open and direct interaction among all stakeholders and stressed the importance to make discussions "bottom-up", with a primary focus on European users.[207] For the first two EuroDIG meetings in 2008 and 2009, the Swiss OFCOM and the Council of Europe (CoE) Media Division acted as inoffical secretariat "backbone" for EuroDIG and was coordinating the work of the EuroDIG programm and supporting network.

The second conference of this new discussion forum took place in Geneva from September 14 to 15, 2009, co-organized by OFCOM and the European Broadcasting Union (EBU) with the support of the CoE.[208] SWITCH, the Swiss .ch registry significantly helped in financing the EuroDIG secretariat and website for the 2009 conference. In addition, the Swiss government sponsored an Internet Governance Capacity Building programme by the Diplo Foundation that was specially put up for stakeholders from Central and South Eastern Europe.[209] The ten best students of this programme were invited to participate in the EuroDIG conference.

At EuroDIG 2009, the participants discussed, in the framework of 6 workshops and 4 plenary meetings, Internet governance related issues, such as the protection of human rights, ensuring universal access to the Internet as a public service and promoting media literacy.

Apart from the substantive discussions on Internet Governance issues,[210] the second EuroDIG conference also discussed the creation of a European IGF.[211] The participants agreed that EuroDIG should continue to organize annual regional meetings and it should be considered to be the European IGF. Furthermore, the CoE's offer to provide for ongoing secretariat support to the future EuroDIG process was welcomed by the EuroDIG participants.

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[206] See Messages from Strasbourg, available at: http://www.coe.int/t/dghl/standardsetting/media/news/ Messages_EuroDIG_en.pdf.
[207] See Council of Europe, Press Release „Landmark European conference stresses "bottom-up" course of action for Internet governance", supra note 45.
[208] See http://www.eurodig.org/.
[209] See Internet Governance Forum: Identifying the Impact, published by the DiploFoundation, 2009.
[210] See no. 2.2.2(b) and no. 4.2.2 above.
[211] Plenary 4: Arrangements for a European IGF and future EuroDIG events, supra note 53.

5.1.4 Swiss Input in ICANN Process

As far as the regulatory framework for the allocation of domain names is concerned, the Swiss foundation SWITCH, being responsible for the allocation of domain names ending in *.ch* and *.li*,[212] participates in the policy meetings of the Internet Corporation for Assigned Names and Numbers (ICANN) since its incorporation.

In particular, the following input is noteworthy: SWITCH has been one of the first registries to comply to the Governmental Advisory Committee (GAC) principles requiring a triangular relationship from the registry with both local government and ICANN and a communication between the local government and ICANN.[213] As early as 2002 SWITCH and OFCOM have informed ICANN about the legal principles applied by OFCOM to the registration of domain names in Switzerland and ICANN is therefore informed that within Switzerland the rules of subsidiarity exist. ICANN should recognize the ultimate public authority of OFCOM with regard to domain names under *.ch* and SWITCH cooperates successfully with OFCOM to reach objectives imposed by the Swiss public authorities (TLD administered in the public interest).

By registering and administering the aforementioned domain names correctly and reliably on behalf of the Swiss Federal Office of Communication (OFCOM) and the Liechtenstein Office of Telecommunications (AK), SWITCH makes an important contribution to the stability of the Internet.[214] In addition to the registration for domain names, the independent foundation SWITCH develops network-based services for the Swiss universities, thus connecting user at home and abroad.

5.1.5 Swiss Input in Further Organizations

In addition, Swiss delegates actively engage in intergovernmental organizations that deal with public policy issues related to the internet, such as the International Telecommunication Union (ITU), the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the World Intellectual Property Organization (WIPO), thus facilitating[215] the implementation of multi-stakeholderism with regard to Internet governance.

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[212] For further details see http://www.switch.ch/about/.

[213] Principles and Guidelines for the Delegation and Administration of Country Code Top Level Domains, available at: http://www.gac.icann.org/index.php?name=Imp_doc.

[214] See https://www.nic.ch/reg/indexView.action?lid=en.

[215] W. LUDWIG, Zum Stand der Schweizer Informationsgesellschaft, supra note 197, at p. 9.

5.2 Swiss Substantive Values Suitable for Internet Governance

5.2.1 Basic Principles

Having one of the oldest democracies in the world, Switzerland is considered successful[216] because of the way it is grouped in Cantons[217], cultures, languages,[218] parties and religions[219]. Switzerland stands out as an example that combines both characteristic types of democracy. Although Switzerland has a Parliament exerting the functions of the legislative State power, and hence, features a representative democratic basis as a form of government, direct democratic instruments are implemented additionally.

The Swiss political system is based upon four basic principles, namely the democratic principle, the federalistic subsidiarity principle, the "Rechtsstaat" principle, and the neutrality principle. These will be considered in turn.

(a)   The Democratic Principle

(aa)   The Notion of the Democratic Principle

Democracy describes a form of government in which all State power is based on the will of the people, typically through elected representatives.[220] Since Switzerland's representative system contains numerous elements of direct popular participation, the form of government is often called a "referendum democracy" or a "semi-direct democracy".[221]

Although being the most important principle, the democratic principle is not mentioned literally in the Federal Constitution of Switzerland (BV)[222], but solely indirectly embodied in it through diverse provisions:[223]

- According to article 148 para 1 BV the Federal Parliament is the highest authority of the Confederation subject to the rights of the people and the Cantons. The population

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216 C.H. CHURCH, The Politics and Governments of Switzerland, Houndmills 2004, at p. 11.
217 The Swiss territory is divided into 26 Cantons (article 1 of the Swiss Federal Constitution (BV): Zurich, Berne, Lucerne, Uri, Schwyz, Glarus, Zug, Fribourg, Solothurn, Schaffhausen, St. Gallen, Grisons, Aargau, Thurgau, Ticino, Vaud, Valais, Neuchâtel, Geneva, Jura, Nidwalden, Obwalden, Basle-City, Basle-Land, Appenzell Inner Rhodes and Appenzell Outer Rhodes.
218 According to section 4 BV the four national languages are German, French, Italian and Romanish/Rhaeto-Romanic; almost two thirds of the population is German-speaking, 20 per cent French-speaking, around 7 per cent Italian-speaking and only about 0.5 per cent Romanish/Rhaeto-Romanic-speaking; for further details see Eidgenössische Volkszählung 2000, Sprachenlandschaft in der Schweiz, available at: http://www.bfs.admin.ch/bfs/portal/de/index/themen/01/22/publ.Document.52216.pdf.
219 The major part of the population is Catholic (almost 45 %), followed by Protestant (37 %) and Muslim (5 %), further religions are Orthodox and Jewish; for further details see Eidgenössiche Volkszählung 2000, Religionslandschaft in der Schweiz, available at: http://www.bfs.admin.ch/bfs/portal/de/index/themen/01/22/publ.Document.50514.pdf.
220 See Oxford Dictionary under the keyword "democracy".
221 W. HALLER, The Swiss Constitution in a Comparative Context, Zurich, 2009, at p. 28, at para 59.
222 Bundesverfassung der Schweizerischen Eidgenossenschaft (BV), SR 101.
223 T. FLEINER/ M. ALEXANDER/ N. TÖPPERWIEN, Swiss Constitutional Law, The Hague 2005, at p. 25, at para 21.

elects their representatives in parliament, but also decides on relevant matters through the means of the initiative and the referendum.[224]

- Article 51 para 1 BV binds all Cantons to adopt a democratic constitution, which must be approved by the population and must be subject to revision, if required by a majority of the Cantonal population. Furthermore, according to article 51 para 2 BV, the Cantonal constitutions must be approved by the Swiss parliament to assure their conformity with federal laws.

- Article 190 BV contains a further reference to the primacy of the democratic principle: According to this provision federal law and public national law are binding on the Federal Courts. Deeming the democratic legitimacy of the Parliament higher than the legitimacy of the Federal Court the latter may not declare federal law as unconstitutional.[225]

(bb) Possible Lessons for Internet Governance

Democracy, the "Government of the people, by the people, for the people" (Abraham Lincoln), implies that all state power is based on the will of the people. Furthermore, democracy describes a form of government, in which the people's approved constitution guarantees basic personal and political rights, fair and free elections, and independent courts of law.

As already mentioned, participation and involvement of the general public can also have a legitimizing effect insofar as it allows for better credibility of actions taken by the competent institutions. Furthermore, the involvement of the public in decision-making processes strengthens its confidence[226] in decisions taken, as the public knows what reasons led to respective "results". In addition, public participation helps to increase transparency[227] and accountability[228] of the governing bodies.[229]

Therefore, all stakeholders should be included in the Internet governance processes; they should become part of the process. In the long run it is more effective convincing involved stakeholders to voluntarily accept a set of basic rules than trying to control everybody and force citizens to follow established laws and rules.

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[224] The referendum and the popular initiative are the main instruments of Switzerland's direct popular participation (direct democracy). There are two types of referendums, the suspensive referendum, generally conducted in Switzerland, and the abrogate referendum. Meanwhile the suspensive referendum enables elective citizens to prevent any constitutional amendment or parliamentary decision regarding a concrete issue from entering into force, the abrogate referendum can repeal such an act in full or in part. A popular initiative can force a public vote on a proposed statute, constitutional amendment or the like, provided that the initiative is signed by a certain minimum number of registered voters, see W. Haller, The Swiss Constitution in a Comparative Context, supra note 221, at p. 101/102, at para 221,224.

[225] T. Fleiner/ M. Alexander/ N. Töpperwien, Swiss Constitutional Law, supra note 223, at p. 26, at para 24.

[226] R.H. Weber, Transparency and the Governance of the Internet, supra note 95, at p. 346.

[227] See no. 3.3.2(b) above.

[228] See no. 3.3.2(c) above.

[229] R.H. Weber, Accountability in Internet Governance, supra note 95, at p. 154.

In view of the aforementioned thoughts, Switzerland can bring in its experience into the European contributions towards the development of Internet governance processes. Being a democratic country in which the representative system is permeated with elements of direct popular participation,[230] Switzerland demonstrates how participation of all through democratic mechanisms leads to a rather stable government of satisfied citizens.

As democracy stands for participation of all, within the Internet governance process e-democracy aspects and online-fora need to be included increasingly, where appropriate. In this context the development of e-government and e-voting merits further attention.[231]

(b)　　The Federal Principle – "Unity in Diversity"

(aa)　　The Notion of the Federalistic Subsidiarity Principle

The subsidiarity principle[232] states that all matters should be handled by the smallest, lowest or least centralized competent authority possible and that the centre should only have the power where absolutely necessary. The term federalism describes a system of the government in which sovereignty is constitutionally divided between a central governing authority and constituent political units (like States or Cantons).

Federalism can be defined on the basis of three main principles,[233] namely autonomy, superposition and participation that express the balance between the maximum of diversity and the minimum of unity.[234] In this context, the respective units of a federal State possess more than just some delegated competences by having their own institutions, laws and constitutions. The units' powers are subordinate to the requirements of a superior legal order, i.e. laws and decisions of the federal level are binding for them.[235] Furthermore, the central governing authority and the constituent political units are called on to collaborate and mutually support each other, whereby the participation must go both ways, bottom-up and top-down.[236]

In so doing, Switzerland is composed of three governmental levels armed with sovereign powers, namely the federal, cantonal and communal level. This three-level polity is reflected in the citizenship, likewise three-parted: every Swiss has three citizenships – Swiss, cantonal, and communal.[237] Having one of the greatest cultural, linguistic and religious diversities of all the Western European countries the goal of Swiss federalism is to keep the decision-making mechanisms closest to the control of the people confronted with the effects of the

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230　W. HALLER, The Swiss Constitution in a Comparative Context, supra note 221, at p. 28, at para 59.
231　See no. 5.3.2 below.
232　Principle of Subsidiarity, Art. 5a BV (supra note 222).
233　A. AUER, The Constitutional Scheme of Federalism, Journal of European Public Policy, Volume 12, Issue 3, June 2005, pp. 419-431, at pp. 421-423, available at: http://pdfserve.informaworld.com/31607_731224431_714024038.pdf.
234　C.H. CHURCH, The Politics and Governments of Switzerland, supra note 216, at p. 155.
235　A. AUER, The Constitutional Scheme of Federalism, supra note 233, at p. 422.
236　A. AUER, The Constitutional Scheme of Federalism, supra note 233, at p. 422.
237　W. HALLER, The Swiss Constitution in a Comparative Context, supra note 221, at p. 31, at para 68.

decision. This permits a more flexible regulation and helps maintaining the cultural diversity of the society and providing politically legitimate institutions and procedures to facilitate peaceful coexistence.[238] The Swiss federalism is based on the constitutionally guaranteed balance between shared rule and self-rule. The Constitution provides for the distribution of powers and determines areas of self-regulation.

According to articles 3 and 42 BV certain powers are transferred to the federal level while residuary powers lie with the Cantons.[239] The Cantons are sovereign, provided there is no restriction within the Federal Constitution. Thus, a Canton's sovereignty can be reduced only by amending the Federal Constitution.[240]

As already mentioned, Switzerland is divided into 26 Cantons which in turn have their own powers, their own institutions and their own authorities (article 1 BV). All Cantons adopt their own constitutions (article 51 BV) and participate in federal decision-making (article 45 BV). Furthermore, they are entitled to conclude treaties among themselves concerning those domains in which they remain sovereign, provided they do not violate the rights and interests of the Confederation or third Cantons (article 48 BV).[241] Additionally, they are entitled to conclude international treaties with foreign States (article 56 BV).

The autonomy of the Communes[242] is stated in article 50 para 1 BV, whereupon the communal autonomy is guaranteed in accordance with cantonal law. Thus, communal autonomy exists only within the limits fixed by the Cantonal Constitutions. The scope of autonomy at the communal level varies from Canton to Canton; e.g. the autonomy in German-speaking Cantons is greater than in the francophone part of Switzerland.[243]

(bb) Possible Lessons for Internet Governance

As aforementioned, within federalist countries the power to govern is shared between a central government and State governments.[244] Unlike a unitary state, sovereignty in these countries is constitutionally split between several territorial levels so that units at each level have final authority and can act independently of the others in some area.[245] Regardless of the fact that each unit possesses its own sovereignty, finally all units cohere.

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[238] T. FLEINER/ L.R.B. FLEINER, Constitutional Democracy in a Multicultural and Globalised World, Berlin 2009, at pp. 593/594; see also supra notes 218, 219.

[239] T. FLEINER/ M. ALEXANDER/ N. TÖPPERWIEN, Swiss Constituional Law, supra note 223, at p. 26, at para 26.

[240] W. HALLER, The Swiss Constitution in a Comparative Context, supra note 221, at p. 43, at para 96.

[241] J.-F. AUBERT/ E. GRISEL, The Swiss Federal Constitution, in: Dessemontet/Ansay (eds), Introduction to Swiss Law, The Hague 2004, at pp. 15-26.

[242] Switzerland is composed of over 2700 Communes.

[243] W. HALLER, The Swiss Constitution in a Comparative Context, supra note 221, at p. 48, at para 106.

[244] W. HALLER, The Swiss Constitution in a Comparative Context, supra note 221, at pp. 29/30, at para 63.

[245] See Stanford Encyclopedia of Philosophy, available at: http://plato.stanford.edu/.

Even if some countries think that federalistic subsidiarity is a process of centralization designed to rob nations of their vitality,[246] from a Swiss perspective federalism is understood as local defence against central authority as it inter alia helps to manage religious and linguistic differences by working up from basic political communities.[247] Since Switzerland maintains the cultural diversity of the society and provides politically legitimate institutions and procedures to facilitate peaceful coexistence, Switzerland can set a successful example of the efficiency of federalism.

Internet governance concerns stakeholders from a plethora of countries, languages and religions. Adapting the federalistic subsidiarity principle, and thus avoiding the concentration of power by dividing sovereignty, is a further crucial factor to include all different stakeholders in the whole Internet governance process. In this context, the previously mentioned[248] principles of autonomy, superposition and participation should be implemented within the Internet governance process as the Internet's international management should be executed with the full support by all stakeholders and not under the control of one single organization.

Federalism signifies the delegation of duties that would be centralized only inconclusively to decentralized institutions, e.g. assignment of duties to regional institutions such as EuroDIG.

(c) The "Rechtsstaat" Principle

(aa) The notion of the "Rechtsstaat" Principle

Being expressly mentioned within the Constitution (article 5 BV) the "Rechtsstaat" principle means that the State rules through law. "Rechtsstaat" can be hardly translated; the English term of "rule of law" does not encompass all aspects of the "Rechtsstaat".

All State activity shall be based upon and limited by law (article 5 para 1 BV).[249] In this context the "Rechtsstaat" principle is characterized by the principle of separation of powers, the legality principle limiting agency action as well as constitutional and administrative review.[250]

The Federal Court of Switzerland distinguishes between the formal and substantive "Rechtsstaat" principle. The formal "Rechtsstaat" principle encompasses the principle of legality and respect of international law (article 5 BV) as much as the procedural due process, the right to substantive review by an impartial court (article 29-32 BV) and the principle of separation of powers. In contrast, according to the substantive "Rechtsstaat" principle,

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[246] C.H. CHURCH, The Politics and Government of Switzerland, supra note 216, at p. 154.
[247] C.H. CHURCH, The Politics and Government of Switzerland, supra note 216, at p. 154.
[248] See no. 5.2.1(b)(aa) above.
[249] The notion "Rechtsstaat" overlaps but is not entirely congruent with the Anglo-American rule of law concept; see T. FLEINER/ M. ALEXANDER/ N. TÖPPERWIEN, Swiss Constituional Law, supra note 223, at p. 28, at para 37 and W. HALLER, The Swiss Constitution in a Comparative Context, supra note 221, at p. 26, at para 56.
[250] T. FLEINER/ M. ALEXANDER/ N. TÖPPERWIEN, Swiss Constituional Law, supra note 223, at p. 29, at para 37.

all State activity has to happen in the public interest, be proportionate to the goals pursued (article 5 para 3 BV) and has to respect fundamental liberties.[251]

(bb)   Possible Lessons for Internet Governance

Besides the democratic and federal principle the "Rechtsstaat" principle should also apply within the ongoing Internet governance process in order to guarantee certainty of the law to everyone who acts within the Internet.

Since cyberspace is not entirely dissociated from real (physical) space, activities on the Internet normally have an influence on individuals and other entities in the real world.[252] Thus, everyone has to be amenable to the law.

The "Rechtsstaat" principle requires the existence of open policies and accountable decision-making procedures. To enable all participants to complain against certain decrees, the creation of a judicial review is indispensable.

In this context, the "Rechtsstaat" principle is characterized by the presence of a written constitution bound to the authority of the state as appointed by the people or their representatives. Furthermore, the principle encompasses the separation of powers and the supremacy of the constitution as much as a controlled independent jurisdiction.

With reference to the aforementioned remarks, Internet governance requires the creation of different entities, each with separate and independent powers and areas of responsibility. In so doing, legislature, judicial branch and executive authority need to be separated in order to prevent abuse of power and arbitrariness.
As previously mentioned, Internet governance mechanisms should observe the "Rechtsstaat" principle in order to guarantee certainty of the law, and thus strengthen the public confidence in the Internet and its governance. Hence, the Internet's legislature should enact laws regarding all Internet matters; so that concerned parties acting within the Internet can anticipate the consequences of his/her actions.

(d)   The Neutrality Principle
(aa)   The Notion of the Neutrality Principle

Without being expressly declared in the Constitution – neutrality is only mentioned in article 173 para 1a BV – the neutrality principle is generally accepted as being one of the four governing principles of Switzerland.

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[251] . T. FLEINER/ M. ALEXANDER/ N. TÖPPERWIEN, Swiss Constituional Law, supra note 223, at p. 29, at para 38.
[252] R.H. WEBER, Shaping Internet Governance: Regulatory Challenges, supra note 15, at p. 4.

By following the rule "Don't meddle in foreign wars"[253] the neutrality principle originates from the 16th century and describes the non-involvement in other States' wars[254]. Being based on the experience for hundreds of years regarding Switzerland's foreign relations, the neutrality principle arose for the first time in the Thirty Years' War.[255] In order to avoid fragmentation and conflicting loyalties of its multicultural populations, Switzerland adopted a policy of neutrality.[256] Switzerland's neutrality was written down in the Charta of Paris in 1815 and subsequently reconfirmed several times. Nowadays, Switzerland acts up to the principle of active neutrality, whereupon Switzerland will not initiate a war or take part in any military aggression.

Due to widespread international acknowledgement of the neutrality principle, today many international and intergovernmental organizations have their headquarters in Switzerland.[257] Their choice of location can also be traced back to Switzerland's stable legal and political environment being a consequence of the neutrality policy.

(bb)   Possible Lessons for Internet Governance

With regard to the stakeholders' varied interests, the States' different forms of governments, and the plethora of different cultures and religions it is of utmost importance for the credibility and acceptance of the whole Internet governance process to preserve independence from individual political powers and develop independent organizational structures. In particular, a stronger independence from the United States of America (USA) should be developed.

The replacement of the US Department of Commerce's (DoC) Joint Project Agreement (JPA)[258] with ICANN by the joint "Affirmation of Commitments" (AoC),[259] dated September 30, 2009, can be seen as one step in the right direction.

As previously mentioned,[260] the DoC and ICANN signed the AoC in order to ensure that decisions related to the Domain Name System (DNS) are made in the interest of the global public, are accountable and transparent. Furthermore, both parties intend to preserve the security, stability and resiliency of the DNS, promote competition and consumer trust in the DNS marketplace and advance DNS's international participation.[261]

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[253] W. MARTIN, Switzerland from Roman Times to the Present, London 1971, at p. 74.

[254] J. VOYAME, Introduction, in: Dessemontet/Ansay (eds), Introduction to Swiss Law, supra note 241, at p. 2.

[255] Being one of the most destructive conflicts in European history the Thirty Years' War (1618–1648) was fought largely as a religious conflict between Protestants and Catholics in the Holy Roman Empire.

[256] T. FLEINER/ M. ALEXANDER/ N. TÖPPERWIEN, Swiss Constituional Law, supra note 223, at p. 27, at para 30.

[257] E.g. the International Labour Organization, the World Health Organization and the World Trade Organization.

[258] Joint Project Agreement between the United States Department of Commerce and the Internet Corporation for Assigned Names and Numbers, supra note 25.

[259] Affirmation of Commitments by the United States Department of Commerce and the Internet Corporation for Assigned Names and Numbers, supra note 27.

[260] See no. 3.3.2(a) above.

[261] Affirmation of Commitments by the United States Department of Commerce and the Internet Corporation for Assigned Names and Numbers, supra note 27, at para 3.

In consequence of this agreement, ICANN is promised to get the autonomy to manage its own affairs and should no longer be subject to the unilateral oversight by the DoC. However, in order to be fully neutral and legally accountable to the global community, ICANN would have to move its legal basis from California to another jurisdiction that permits it to have the status of an international organization. The Swiss legal system does not only allow granting special privileges to international bodies such as to entities of the United Nations, but also enables private organizations (for example associations) in the field of finance or sports to reach a certain independence from State law (amongst others in respect of labour, social insurance or tax law), thereby establishing some kind of special quasi-international status for such private organizations.

5.2.2 Further Principles

(a) Social Justice

(aa) The Notion of Social Justice

From Haller's point of view,[262] in addition to democracy, federalism, "Rechtsstaat", social justice is one of Switzerland's basic principles.

Social justice is already embedded in the Constitution's preamble, whereupon inter alia the strength of a people is measured by the well-being of its weakest members.[263] Furthermore, reference can be made to the State's duty to provide some form of welfare safety net.[264] Although the constitution leaves the main responsibility in this field to the democratically elected legislatures on the national and cantonal levels, there are some relevant provisions mentioned within the Constitution:[265]

- *Article 2 BV* obligates the Swiss Confederation to promote both, common welfare and equality of opportunity.
- *Articles 12 BV* entitles everyone to obtain assistance when in need, including resources essential for decent existence.
- *Article 19 BV* contains the right to free primary school education.
- *Article 29 BV* guarantees the right to legal aid for persons lacking the necessary.
- *Article 41 BV* describes a multitude of social goals which are intended as guidelines for legislators without granting citizens the listed rights.
- *Articles 111-114 BV* guarantee social security and insurance for the elderly, employee pension plans and unemployment insurance.

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262 W. HALLER, The Swiss Constitution in a Comparative Context, supra note 221.
263 Bundesverfassung der Schweizerischen Eidgenossenschaft (BV), supra note 222.
264 W. HALLER, The Swiss Constitution in a Comparative Context, supra note 221, at p. 31, at para 69.
265 W. HALLER, The Swiss Constitution in a Comparative Context, supra note 221, at pp. 31/32, at para 70.

(bb)   Possible Lessons for Internet Governance

Any Internet governance mechanisms should also be endued with principles about how social justice and support for economically or politically weaker societies can be achieved.

(b)   Other Principles

Further principles are the protection of property (article 26 BV), the economic order based on free competition (article 27 BV), the sustainable development (article 73 BV), and the openness towards the world (preamble).

5.3   Swiss Material Regulations Supporting Internet Governance

5.3.1   Access to Infrastructure (Broadband)

As previously mentioned, a joint involvement of all stakeholders is inevitable to advance the dialogue on Internet governance; technically, participation in the Internet depends on Internet access. In this sense the promotion of affordable broadband access to the Internet for all, i.e. including persons with disabilities, the elderly, those with low incomes and the poorly educated persons, would be a substantive step in the right direction.[266]

The broadband penetration in Switzerland as compared to international standards in the EU and beyond has always been numerically high with an annual considerable increase.[267] Already in 2007 about 2.3 million Swiss households were connected to the Internet via broadband; this approximates a broadband penetration of more than 30 percent.[268] Regardless of this fact Switzerland has taken a fine step forward towards increasing the number of participants and thus bridging the national digital divide by complementing the existing Ordinance on Telecommunications Services[269] (FDV) as explained below.

(a)   Public Service

In order to improve the supply with Internet connections and thus cater for the needs of all parties involved, in particular the private and the business sector, the Swiss Federal Council in 2006 presented a draft of a new FDV, among others entitling every Swiss resident to get a

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[266] Messages from Strasbourg, supra note 206, at para 19.

[267] See Broadband Penetration, historical time series, available at: http://www.oecd.org/document/54/0,334 3,en_2649_34225_38690102_1_1_1_1,00.html; http://www.bfs.admin.ch/bfs/portal/de/index/themen/16/04/key/ approche_globale.indicator.30106.301.html?open=1#1.

[268] Swiss Federal Office for Statistics (SFOS), Internet – Hochgeschwindigkeits-Internet, available at: http://www.bfs. admin.ch/bfs/portal/de/index/themen/16/03/key/ind16.indicator.30107.160204.html?open=1#1.

[269] Verordnung über Fernmeldedienste (FDV), SR 784.101.1.

broadband connection to the Internet as of 1 January 2008[270]. Within the legislative process by consultation, conducted by the Federal Department of Environment, Transport, Energy and Communications,[271] the 73 participants, among others Cantons, parties, commercial enterprises and diverse organizations, mainly applauded the design[272] and finally the regulation was adopted by the Swiss Federal Council on March 9, 2007. In addition, to ensure that broadband access is affordable for the general public, the Swiss Federal Council stipulates a price ceiling.

(aa)   Right to Access

Since the beginning of the year 2008 (article 109 FDV) the whole population of Switzerland is entitled to get a broadband access to the Internet (article 16 para 2c FDV). Moreover, the broadband access has to guarantee a transmission rate of at least 600/100kbit/s (article 16 para 2c FDV). Thus, the broadband access became a component of the provision regulating basic supplies.

The provision regulating basic supplies describes some kind of a safety net to guarantee every Swiss resident access to the respective telecommunications services at an affordable price. The content of the provision regulating basic supplies is periodically reviewed by the Swiss Federal Council. In order to guarantee the provision regulating basic supply the Federal Communications Commission (ComCom) grants the license through a public tender.

Up to this point of time the respective license holder regarding the offering of basic supplies already had to guarantee diverse telecommunication services such as providing all residents with a telephone connection and a telephone number and passing an entry into the telephone directory. Henceforward the license holder is obliged to provide each Swiss resident a fast broadband access made available, metaphorically speaking, up to a house's exterior wall (article 17 para 1 FDV). The domestic electrical installation has to be undertaken by the property owner himself.

(bb)   Cost Constraints

As already mentioned, the Swiss Federal Council intended to ensure the opportunity of getting access to the Internet for everyone, not just only by providing access, but also by intro-

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[270] See Bekanntmachung der Departemente und der Ämter, available at: http://www.admin.ch/ch/d/ff/2006/2683.pdf.

[271] See Grundversorgung: für 2008 vorgesehene Neuerungen, available at: http://www.bakom.admin.ch/dokumenta-tion/Newsletter/01315/01319/01395/index.html?lang=de

[272] See Ergebnisse über die Vernehmlassung zur Anhörung der Grundversorgungsbestimmungen in der Fernmeldedienstverordnung FDV, available at: http://www.bakom.admin.ch/dokumentation/gesetzge-bung/00909/01543/index.html?lang=de.

ducing a cost constraint in the form of a price ceiling within the regulation to grant access to the Internet affordable for most people.

According to article 22 para 1a.4 FDV, since January 2008 a price ceiling of 69 CHF (plus VAT) was determined which encompasses all telecommunications services, namely a broadband access, a telephone connection, a telephone number and an entry into the telephone directory. For considering the fast development of the broadband-market and the possibility of a decrease in prices the price ceiling's appropriateness will be reviewed in 2010.

(cc) Effects

At the end of the year 2008 already 2.5 million broadband subscribers were connected to the Internet, a broadband penetration of 33.5 broadband subscribers per 100 inhabitants.[273] Therewith, Switzerland bettered itself to move up to fourth place behind Denmark, Netherlands and Norway. By increasing the number of national netizens, Switzerland is taking a major step towards the targeted ultimate object of multi-stakeholderism.

This large increase is not only due to the aforementioned legal adaptations. A further important coefficient is the seizure of access to the Internet through removal of entry barriers to the benefit of disabled people, as illustrated hereinafter.

(b) Disabled People

Considering access to the Internet as being an integral part of quality of life and thus an indispensable requirement for human interaction,[274] the removal of entry barriers to the benefit of disadvantaged people is of particular importance. Since electronic media must be accessible to people with disabilities, too, it is decisive to simplify their communication and hence compensate their limited mobility. By enabling disabled people access to information and social life as well as to political involvement, they receive a high level of autonomy.

With regard to this matter manifold regulations were adopted within the legislation of Switzerland:

(aa) Federal Constitution

The ban on ableism is already taken into account in the Federal Constitution of Switzerland[275] (article 8 para 2 BV). According to this regulation it is illegal to discriminate against somebody

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[273] See Broadband subscribers per 100 inhabitants (December 2008), available at: http://www.oecd.org/document/54/ 0,3343,en_2649_34225_38690102_1_1_1_1,00.html.

[274] Messages from Strasbourg, supra note 206, at para 18.

[275] Bundesverfassung der Schweizerischen Eidgenossenschaft, supra note 222.

just because of his parentage, ethnic group, gender, age, language, social situation, way of life, religious belief, ideology, political attitude as well as physical or mental handicap. By highlighting these restraints, Switzerland addresses the equality of people with disabilities being of extreme importance. Concerning this matter the Federal Constitution of Switzerland additionally foresees to adopt measures concerning the removal of discriminations against disabled people (article 8 para 4 BV).

(bb) Further Regulations

- **BehiG:**

With this in mind the Federal Law concerning the Removal of Discrimination against People with Disabilities [276] (BehiG) became effective on January 1, 2004, focusing on how to make the services of the local community available to, in particular, disabled customers.

The regulation's aim is to prevent, reduce or remove discrimination against disabled people by stipulating framework conditions to facilitate the participation of handicapped in everyday life (article 1 para 1, 2 BehiG). In this context discrimination must be assumed if disabled people are treated differently from people without disabilities for no particular reason as well as if an essential unequal treatment of disabled people is missing (article 2 para 2 BehiG).

The State's obligation to remove or neglect discriminations among other things bears on the access to services of the local community (article 3 para b BehiG), particularly by granting the disabled persons adequate access to the Federation's, Cantons' and Communities' services related to the Internet (article 14 para 2 BehiG); in particular, the aforementioned services have to be accessible to visually impaired people, too (article 14 para 2 BehiG). As far as technical regulations are needed, the Swiss Federal Council is authorized to enact ordinances as well as to officially state the technical regulations of private organizations (article 14 para 2 BehiG). Eventually, the communications systems have to be accessibly designed at the end of ten years after the BehiG came into effect, consequently on January 1, 2014 (article 22 para 2 BehiG).

The BehiG is concretized by the two by-laws, namely the by-law on the handicapped accessible composition of public transport[277] (VböV) and the ordinance on the equality of handicapped people [278] (BehiV); the latter is specified hereinafter.

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[276] Bundesgesetz vom 13. Dezember 2002 über die Beseitigung von Benachteiligungen von Menschen mit Behinderungen (Behindertengleichstellungsgesetz, BehiG), SR 151.3.

[277] vom 12. November 2003 über die behindertengerechte Gestaltung des öffentlichen Verkehrs (VböV), SR 151.34.

[278] Verordnung vom 19. November 2003 über die Beseitigung von Benachteiligungen von Menschen mit Behinderungen (Behindertengleichstellungsverordnung, BehiV), SR 151.31.

- **BehiV:**

Coming into effect on January 1, 2004 the BehiV was inured by the Swiss Federal Council, concretizing the BehiG's general provisions regarding the purchase of services (article 2 para 4 BehiG) and the access to Internet services in particular (article 14 para 2 BehiG). The BehiV contains, among others, provisions regarding the handicapped accessible arrangement of federal services (article 1 para 1d BehiV).

Special regulations concerning the access to Internet services are contained in section 10 BehiV stipulating information and communication services within the Internet as of inevitably accessible to people with all kinds of disabilities be it speech impediment, speech-hearing disability or a visual handicap. Notably the new Information and Communication Technology (ICT) opens up new possibilities especially advantageous for people with a visual handicap.

The federal services within the Internet need to be designed according to the international information technology's standards (article 10 para 1 BehiV). They have to correspond to the directives of the World Wide Web Consortium (W3C) regarding the access to web pages; in addition, they must correspond to the national Information Technology (IT) standards. These provisions concern among others the presentation of web contents, the mechanisms of interaction, web pages' intelligibility and the observation of compatibility as much as interoperability.[279]

- **Directive P028**

In order to realize accessibility within the administration a Federal Directive concerning the Configuration of Barrier-free Services within the Internet[280] (P028) was enacted by the Swiss Federation on May 23, 2005. The standard described in P028 is based on the Web Content Accessibility Guidelines 1.0 (WCAG)[281], published by the W3C. Following the primary goal of promoting accessibility these guidelines are intended for all web content developers and for developers of authoring tools so as to explain how to make web content accessible to people with disabilities.[282] With regard to this aspect, the WCAG subdivides web contents into three priority levels.[283]

Each checkpoint has a priority level based on the checkpoint's impact on accessibility.[284]

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[279] Erläuterungen zur Behindertengleichstellungsverordnung (BehiV), November 2003, available at: http://www.bj.admin.ch/etc/medialib/data/gesellschaft/gesetzgebung/behinderten.Par.0018.File.tmp/erlaeut-behiv-d.pdf.
[280] P028 – Richtlinien des Bundes für die Gestaltung von barrierefreien Internetangeboten – Ver-sion 1.0, available at: http://www.isb.admin.ch/themen/standards/alle/03237/.
[281] For more details see Web Content Accessibility Guidelines 1.0: http://www.w3.org/TR/WCAG10/.
[282] See Web Content Accessibility Guidelines 1.0, supra note 281.
[283] P028, supra note 280, at p. 5, at para 2.1.
[284] Web Content Accessibility Guidelines 1.0, supra note 281, at para 4.

Priority level 1, the level with the lowest accessibility, means that a web content developer must satisfy this checkpoint. Otherwise it is impossible for certain stakeholders to access information in the document. Satisfying checkpoints of priority 1 is a basic requirement for some stakeholders to be able to use web documents.

If a checkpoint is of *Priority level 2* web content developer should comply with this checkpoint in order to remove significant barriers to accessing web documents. Non-compliance hampers some stakeholders' access to information.

Satisfying checkpoints of *Priority level 3* lies within the web content developer's own discretion. The web content developer may address this checkpoint to improve access to certain documents.

In order to facilitate disabled people's access to all new Federal web pages all priority 1 and 2 checkpoints need to be satisfied.[285] Already existing and already updated Federal web pages have to meet the aforementioned requirements commencing with January 1, 2007. Already existing but no longer updated web pages are not subject to the directive P028.

Furthermore, contents out of PDF files (Portable Document Format) have to be accessible barrier-free within the Internet[286] and an additional list of priority level 3-checkpoints gives guidance on how to, on a voluntary basis, facilitate access to web contents for handicapped people.[287]

- **eCH-0059 Accessibility-Standard**

In order to advance the BehiG's implementation on the Cantonal level the Accessibility-Standard eCH-0059 was drafted and finally passed on November 23, 2007.[288] This standard follows the aforementioned P028 and the Web Content Accessibility Guidelines (WCAG) and was conceived to apply within public Internet services of the local Communities for activities such as e-Voting and e-Government.

5.3.2 E-participation/ E-democracy

(a) Background of Citizens' E-Participation

People's expectations are very different as to how they will benefit from greater participation through information technology. Not everyone wants to receive the same amount of

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[285] P028, supra note 280, at p. 5, at para 2.2.
[286] P028, supra note 280, at p. 6, at para 2.2.4.
[287] P028, supra note 280, at p. 6, at para 2.2.5.
[288] eCH-0059 Accessibility Standard, available at: http://www.ech.ch/index.php?option=com_docman&task=cat_view&gid=224&Itemid=181&lang=de.

information from the government, nor is everybody interested in electronically communicating with the government in terms of transactions and interactivity.[289]

The new technical possibilities invite a rethinking of the way the organization of information in bureaucratic governmental entities or regulatory agencies should be established. Thereby, information and communication technologies in conjunction with legal norms should help to build trust as part of good governance; relations based on trust between governments and citizens improve engagement and motivation.[290] The encouragement of civic participation should go hand in hand with the improvement of democratic structures, expressed for example in e-voting and e-participation encompassing the decision-making processes.

Public participation in the rule-making processes could be improved with the use of modern technology. Digital technology, if structured in a legal framework, is in a position to help effectuate better or more responsive regulatory policy in a legally structured way. The following aspects deserve to be considered more closely:[291]

- *Mobilization*: Does information technology help induce people to participate in the rule-making process?
- *Distribution*: Can a change in the kinds of people who participate in processes be expected with a greater exchange of electronic information?
- *Frequency*: Do specific individuals and organizations participate more frequently and are there specific incentives for increased participation?
- *Knowledge*: Is learning enhanced or inhibited be electronic processes?
- *Tone*: Does the tone, style, or emphasis of expression change?
- *Ideas*: Do ideas convey new or better information and are they more complex or simpler?
- *Conflict*: Which kinds if issues seem to generate reduced or heightened conflicts?
- *Perceptions*: How do people judge their participation in the rule-making process?
- *Spillovers*: Are there any effects that spill over into policy forms or other aspects of politics?

Information technology may also lead to specific changes in the decision-making process of governmental agencies. With this in mind, the following factors should be considered:[292]

- *Time*: Does electronic participation speed up or slow down the decision-making process?
- *Cost*: Does the electronic process increase costs?
- *Response*: How do government officials response to public input (value or burden)?
- *Role*: Do government officials perceive their role in the electronic context differently?

[289] R.H. WEBER, Towards a Legal Framework for the Information Society, Zurich 2003, at p. 90.
[290] R.H. WEBER, Towards a Legal Framework for the Information Society, supra note 289, at p. 90.
[291] For further details see C. COGLIANESE, The Internet and Citizen Participation in Rulemaking, RWP03-022, 2003, at p. 14, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=421161.
[292] See C. COGLIANESE, The Internet and Citizen Participation in Rulemaking, supra note 291, at p. 15.

- *Agency deliberation*: Does the electronic process make the decision finding more transparent and the deliberations among officials easier or more difficult?
- *Outcomes*: Can a general statement be made to the effect that decisions in a different process are improved?

For the time being, efforts to have citizens electronically participate in rule-making processes are still rather remote in most countries. However, the extension of wireless mobile services increases possibilities for new approaches, not least in developing countries.

(b) Merits of E-Government

Governments should pursue policies to improve access to the online services. Many advantages of online government information and services are not replicable offline, meaning that information which cannot be accessed will be excluded from consideration and action taken without that information will not be optimal. Digital opportunities and social inclusion through information can enhance the capacity-building, empowerment, and social participation of individuals. The collection of information, the independent search capacity, and interactive policy consultation could increase the level of interaction with governments.[293]

Furthermore, the electronic registration means facilitating administrative tasks merit special attention. Although many countries have introduced electronic registration means in certain fields (for example in telecommunication services, the commercial registry, and geographical data collection), the introduction of an actual electronic registry system still seems to be an objective that will not be realized in the near future.[294]

(c) E-Voting in Particular

A particular topic, which could improve e-participation, is e-voting[295] being distinguishable into two categories.[296]

- *Remote electronic voting* is understood as the transmission of a secure and secret official ballot to electoral officials via various electronic information and communication technologies at a site located away from the polling station. Remote e-voting is sometimes thought to refer only to Internet voting, but in fact it also includes computers, touch-tone terrestrial telephones, mobile phones, text messaging devices, and digital televisions.

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293   See R.H. WEBER, Towards a Legal Framework for the Information Society, supra note 289, at p. 96.
294   See R.H. WEBER, Towards a Legal Framework for the Information Society, supra note 289, at p. 97.
295   For a general overview see R.H. WEBER/ A. WILLI, IT-Sicherheit und Recht, Grundlagen eines integrativen Gestaltungskonzepts, Zurich 2006, at pp. 253 ss.
296   P. NORRIS, Will New Technology Boost Turnout?, Evaluating Experiments in E-Voting v. Postal Voting Facilities in UK Local Elections, August 2003, section 1, at para 1-3, available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=437140.

- *On-site electronic voting* technologies are used to vote within the traditional physical location of a polling station, exemplified by touch-activated screens, dedicated computer terminals, or electronic counting devices.

It has been suggested by some that many advantages may accrue from implementing remote e-voting. The most important is the added convenience for citizens. By using a telephone, computer, palmtop device, or digital television to cast a ballot from the home or workplace, people can reduce the time and effort traditionally required to vote in person at the polling station. This may help overcome problems of social exclusion, especially for those with limited mobility.[297]

Moreover, both remote and on-site electronic voting could potentially reduce the information costs of participation, and allow citizens to match their preferences more accurately to their electoral decisions by providing relevant information at the time that people cast their ballot; for example by incorporating an optional web page of photos and standardized biographies linked to each candidate, or by providing a briefing synopsis explaining each side of a referendum issue.[298]

For officials, well-designed end effective electronic technologies, either remote or on-site, could potentially improve and streamline the process of electoral administration, by increasing the efficiency, speed, and accuracy of recording and counting votes.[299]

(d)   Situation in Switzerland
(aa)   E-Government in Switzerland

In order to apply the new developed ICT quickly, the Swiss Federal Council adopted a strategy for an Information Society on February 18, 1998.[300] Therein the Swiss Council defined principles and priority measures to promote an internationally harmonised information society encompassing all interest groups. Additionally, an IT policy was published in 2000,[301] setting out both the Federal Council's goals and principles regarding new ICT's implementation within the Federal Administration and their long-term development.[302]

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[297] P. Norris, Will New Technology Boost Turnout?, supra note 296, section 1, at para 4 ss.

[298] R.H. Weber, Towards a Legal Framework for the Information Society, supra note 289, at p. 92.

[299] See R.H. Weber, Towards a Legal Framework for the Information Society, supra note 289, at p. 92.

[300] Strategy of the Federal Council for an Information Society in Switzerland, adopted in 1998 and updated in 2006, both available at: http://www.bakom.admin.ch/themen/infosociety/00695/index.html?lang=en.

[301] Information Technology Policy of the Swiss Federal Administration of October 18, 2000, available at: http://www.isb.admin.ch/archiv/index.html?lang=en.

[302] Information Technology Policy of the Swiss Federal Administration of October 18, 2000, supra note 301, at p. 3.

The first attempts regarding the development of e-government strategies in Switzerland were undertaken on the cantonal level, e.g. in Geneva[303] and Basel[304] in 2001. As simple and fast communication between citizens and administrations is of crucial importance and administrative tasks in Switzerland are handled differently among the 26 Cantons, the Swiss Federal Council adopted the first national e-government strategy on February 13, 2002,[305] in order to coordinate and interlink already existing technologies and processes.

In this context the e-government strategy aimed at four main goals: [306]

- *Efficiency*: Improve information and communication flows;
- *Flexibility*: Facilitate the adaptation to an ever-changing environment;
- *Transparency*: Organize administrative processes more clearly;
- *Participation*: Attendance at political processes.

In the sequel, Switzerland's attempts regarding the regionwide implementation of electronic administrative services were lacking success.[307] With regard to the aforementioned three-level polity of Switzerland[308], the success of e-government in Switzerland depends on the co-operation and networking of the Federal, Cantonal and Communal level. For that reason, in 2006, the Federal Council mandated the Federal Department of Finance to develop a new e-government strategy in collaboration with all Cantons.

Subsequently, the national e-government strategy was replaced by the "E-government strategy Switzerland" in 2007.[309] Being developed in close cooperation with the Cantons and the Municipalities under the direction of the Federal Strategy Unit for IT (FSUIT), the "E-government strategy Switzerland" constitutes the basis for the three governmental levels to focus their efforts towards common goals.[310] Setting out principles, approaches, and instruments, the strategies' goal is to enable both businesses and the population to carry out important transactions with the authorities electronically[311] and to make administrative activities as efficient, economical and close to the people as possible throughout Switzerland.[312]

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[303] Cyberadministration: La vision du canton de Genève, available at: http://www.ge.ch/conseil_etat/1997-2001/ppresse/doc/pointdepresse_20010221_annexe.pdf.

[304] E-Government im Kanton Basel-Stadt: Strategie und Aktionsplan, available at: http://www.e-gov.bs.ch/bericht.pdf.

[305] Press Release, Bundesrat verabschiedet eGovernment-Strategie, February 13, 2002, available at: http://www.efd.admin.ch/dokumentation/medieninformationen/archiv/01307/index.html?lang=de.

[306] Press Release, Bundesrat verabschiedet eGovernment-Strategie, supra note 305.

[307] For further details see http://www.bakom.admin.ch/dokumentation/Newsletter/01315/01595/01599/index.html?lang=de

[308] See above 5.2.1(b).

[309] EGovernment Strategy Switzerland, adopted by the Federal Council on January 24, 2007, available at: http://www.isb.admin.ch/themen/strategien/00071/index.html?lang=en.

[310] Brochure eGovernment Switzerland, at p. 4, available at: http://www.egovernment.ch/en/dokumentation/broschueren.php.

[311] Brochure eGovernment Switzerland, supra note 310, at p. 4.

[312] See Federal Office of Communications (OFCOM), E-Government strategy Switzerland, available at: http://www.bakom.admin.ch/themen/infosociety/01688/index.html?lang=en.

In order to measure the qualitative benefit and efficiency of the already existing Swiss e-government projects, thus improving them, Switzerland launched an idea contest regarding the development of an appropriate harmonized measuring system in July 2009.[313]

Additionally, the third annual e-government symposium took place in Berne, on November 17, 2009. Evaluating the current results of the existing Swiss e-government projects, the symposium addressed e-government-representatives out of the Federal, Cantonal and Communal level as much as parliamentarians and representatives out of science and research.[314]

(bb)   E-Voting in Switzerland

As far as e-voting is concerned Switzerland could bring its experience into the European process of improving e-participation. Already ten years ago, Switzerland started to prepare first projects of e-voting intending to establish a framework for e-administration; the concept should include an all-encompassing information and services portfolio which would move traditional government to new forms of e-government.[315] In 2003 the first pilot projects for e-voting systems have been implemented in Switzerland.[316] E-voting is considered as key application in the context of the e-government efforts, based on appropriate IT security measures.

In the light of the extended democratic structures in Switzerland, e-voting must include three aspects:[317]

• Actual e-voting (in respect of the composition of parliaments through representatives as well as in respect of specific factual topics;
• Electronic referenda and electronic peoples initiatives;
• Electronic information by authorities in relation to topics of e-voting at stage.

The Swiss concept of e-voting is broad and encompasses all procedural steps related to the ballot process, such as the invitation to vote, the actual voting, the counting of the votes, the collection of the statistical data and the publication of results.[318]

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313 See http://www.efd.admin.ch/00468/index.html?lang=de&msg-id=29180.
314 For further details see http://www.egovernment-symposium.ch/default.asp?V_ITEM_ID=4594.
315 R.H. WEBER/ A. WILLI, IT-Sicherheit und Recht, supra note 295, at p. 254.
316 Zwischenbericht, Der Vote électronique in der Pilotphase, Bern, August 18, 2004, at pp. 34 ss; C. BONARD, Chances et défis du vote par Internet, in: Muralt Müller/Auer/Koller (eds), Tagung 2002 für Informatikrecht, E-Voting, Bern 2003, at pp. 34 ss; J.-M. REBER, Vote électronique: le projet neuchâtelois, in Muralt Müller/Auer/Koller (eds), Tagung 2002 für Informatikrecht, E-Voting, Bern 2003, at pp. 43 ss.
317 Bericht über den Vote électronique, Chancen, Risiken und Machbarkeit elektronischer Ausübung politischer Rechte, January 9, 2002, BBi 2002, at p. 651.
318 R.H. WEBER/ A. WILLI, IT-Sicherheit und Recht, supra note 295, at p. 255.

E-voting has been introduced in Switzerland[319] on a provisional basis and with a limited scope, for example in respect of the geographical area, the substantive issues at stake, and the time frame. Experience should be gained through pilot projects, implementing in particular procedural steps and verifying confidence of citizens in the system and the democratic process.[320]

Concrete regulations of the Federal Council are contained in a specific Ordinance[321] and in Guidelines.[322] E-voting includes all forms of electronic communications including text messaging devices. The e-voting is done on the basis of a virtual voting register, established in centralized structures, which makes it necessary to build a specific architecture for the e-vo-ting system.[323]

The Federal Council has to approve the pilot projects in advance. This strict rule is implemented due to the fact that the risk of enlargement of the digital divide to the detriment of the citizens not using electronic names must be kept in mind. Furthermore, the damage potential including manipulation of particular votes and falsification of the general voting results must be tackled in advance. A main interest of the Federal Council consists in the improvement of citizens' confidence in the e-voting processes. Among others, simplicity of proceedings and security of procedural steps by way of elimination of risks are important and should be able to cope with large scale requirements.[324]

The key prerequisites for the implementation of e-voting systems are (i) the identification of the voting person and (ii) the guarantee of anonymity of the voting person, established by functional security measures and a technical distinction between the identification of the voting person and the counting of the votes.[325] These requirements are to be met by the terminal equipment and by the server collecting the votes as well as by the communication tools (transport channels); therefore, particular Swiss regulations concern:[326]

- Identification and control of voting legitimation, done by encryption and digital certificates, but executed without allowing to establish audit trails;
- Exclusion of multiple filing of votes;
- Avoidance of misleading voting elements in the e-voting procedure;
- Guarantee of voting secrecy (confidentiality principle, anonymity), making encryption of voting data necessary and requiring anonymous control mechanisms, requiring special security measures for the opening of the electronic ballot-box;

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319 The legal bases are Art. 34 of the Swiss Constitution and Art. 8a of the Federal Law on Political Rights, as revised by parliamentary decision of June 21, 2002 (SR 161.1).
320 R.H. Weber/ A. Willi, IT-Sicherheit und Recht, supra note 295, at p. 257.
321 In particular Art. 27a-27q of the Ordinance on Political Rights (SR 161.11).
322 „Kreisschreiben" of September 20, 2002, BBl 2002, 6603.
323 R.H. Weber/ A. Willi, IT-Sicherheit und Recht, supra note 295, at p. 270.
324 R.H. Weber/ A. Willi, IT-Sicherheit und Recht, supra note 295, at pp. 260/261 with further references.
325 R.H. Weber/ A. Willi, IT-Sicherheit und Recht, supra note 295, at pp. 262/263 with further references.
326 Art. 27d of the Ordinance on Political Rights, supra note 321.

- Avoidance of loss of data due to system failures;
- Implementation of procedural rules, such as exclusion of opening of electronic ballot-boxes prior to the closure of the respective e-voting procedure and establishment of specific provisions for the case of irregularities and system problems, in particular avoidance of man-in-the-middle attacks.[327]

Furthermore, Swiss law contains technical rules as means of quality assessment of the use of technical components and of technical implementation[328] and procedural organization (including adequate measures against hacking); in addition, access to the system and to the e-voting data is only given to authorized persons and data collection may only be done for the specific e-voting purposes.[329] Specific provisions also concern the data storage of correctly delivered e-votes. All these rules are necessary since no evidence and no paper trail of voting is available.[330]

Up to now, the e-voting pilot projects in Switzerland have not attracted a large number of citizens, but the e-voting processes have been successful insofar as no technical problems and no irregularities occurred in the actual ballots.[331] Therefore, Switzerland would be in a good position to share its experience with other European countries less advanced in the implementation of e-voting architectures.

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[327] For more details see R.H. WEBER/ A. WILLI, IT-Sicherheit und Recht, supra note 295, at pp. 262-266 with further references.

[328] See in particular Art. 27d para 1 lit. f of the Ordinance on Political Rights.

[329] See R.H. WEBER/ A. WILLI, IT-Sicherheit und Recht, supra note 295, at pp. 266/267.

[330] R.H. WEBER/ A. WILLI, IT-Sicherheit und Recht, supra note 295, at p. 268.

[331] For more details see R.H. WEBER/ A. WILLI, IT-Sicherheit und Recht, supra note 295, at pp. 268 ss with further references.