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Project: **The Transformation of Political Mobilisation and Communication in European Public Spheres**

Project acronym: Europub.com
Project website: http://europub.wz-berlin.de

Working paper   **Internet – a new potential for European political communication?**

Case report: **Switzerland** [1]

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Date: 26 April 2002

1. Structural features of the Internet communication network

In this section, we shall present the structural features of the Internet communication network in Switzerland. In a first step, we focus on changes in the decision-making structures regarding the regulation of the Internet communication network in the aftermath of the liberalization process. In a second step, we concentrate on the actual structure of the Internet network, i.e. we give a brief overview of the most important Internet service providers (ISPs) in Switzerland and the links among them and other business sectors. Finally, we briefly present the legal provisions regarding the regulation of Internet content.

Regulation of the Internet communication network: Decision-making structures

Following the liberalizing process that was taking place in the European Union (EU), the Swiss Federal Council proposed in its message to the Chambers on June 10, 1996 the revision of the Telecommunications Law (LTC). Approved by the Parliament on April 30, 1997, the new law came into force on January 1, 1998[1] and opened the Swiss telecommunications market by the time of liberalization in the EU.

The opening-up of the telecommunications market has not only completely changed the supply side of ISPs (see below), but also the structure and competencies of the regulatory agencies. Before the liberalization of the telecommunications market, the Swiss Federal Council or the head of the Federal Department of Environment, Transport, Energy and Communications (DETEC) respectively were the competent decision-making authorities in the whole policy field of communication. After January 1, 1998, time of liberalization, the competencies of the Federal Council and the DETEC were restricted to media politics, whereas the telecommunications sector is now in the hands of the newly created Federal Communications Commission (ComCom). ComCom acts as an independent regulatory authority and was established by the Federal Council according to the LTC of April 30, 1997 (art. 56, para. 1, LTC). Composed of five to seven specialized members, ComCom assumes the role of the licensing and market regulatory authority for the telecommunications sector (art. 57, para. 1, LTC). Its main competencies consist of the granting of licences for operators of telecommunications services and for universal service licences, laying down conditions for interconnection and deciding on measures to be taken in case of a violation of the applicable law. For the implementation of the legislation on telecommunications, ComCom may have recourse to the Federal Office for Communications (OFCOM) and impose directives on it (art. 57, para. 2, LTC). According to the LTC (art. 5, para. 2), the Commission may also delegate to OFCOM particular tasks, as done in the decree of November 17, 1997 relating to the LTC[2]. Once OFCOM has been delegated, it is competent to grant licences for telecommunications services that are not subject to an invitation to tender, which is the case of the fixed network. Besides, the Office prepares the cases handled by ComCom, submits the necessary proposals and implements the Commission's decisions. In this sense, OFCOM is the examining and executive agency in the sphere of regulation of the telecommunications market. In its role as the monitory authority, the Office ensures also the concessionaires' compliance with international and Swiss law on telecommunications, its implementing provisions and their own licence (art. 58, para. 1, LTC). If OFCOM becomes aware of a violation of the LTC, it makes proposals to ComCom, which will decide on the measures to be taken (art. 58, para. 2, LTC).

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[1] SR 784.10, BBI 1996 III 1405. Online: http://www.admin.ch/ch/d/sr/7/784.10.de.pdf.
[2] http://www.fedcomcom.ch/ger/law/784_101_112.pdf

Besides the LTC, Switzerland does not have any specific competition law concerning telecom / Internet. However, the LTC regulates interconnections in its article 11. Following the principle of transparent and cost oriented prices, enterprises having a dominant position in the market have the obligation to give interconnection to other enterprises (art. 11, para. 1, LTC). If no agreement can be reached within three months, ComCom may lay down the conditions of interconnection on behalf of OFCOM. Should the question of market domination be at stake, OFCOM must consult the Competition Commission (art. 11, para. 3, LTC), which is the regulatory authority with respect to cartels or other agreements affecting competition, market domination or concentrations of enterprises. Its competencies are laid down by the Federal Act on Cartels and other Restraints of Competition (Acart of October 6, 1995, art. 18)[3]. Acart applies to private or public enterprises that are party to cartels or to other agreements affecting competition, have market power or take part in concentrations of enterprises (art. 2, para. 1, Acart). The Competition Commission must be notified of concentration of enterprises before they are carried out (art. 9, para. 1, Acart). But in no way, though, the legislation is restricted to the telecommunications sector.

The structure of the Internet communications network

The opening-up of the telecommunications market in January 1998 put an end to the legal monopoly of the Telecom PTT (since October 1997: Swisscom) and consequently led to an increasing competition between ISPs. By ISP, we understand companies that provide either access to the Internet and offer mostly own services such as news or e-mail (Access-Providers) or provide only memory space on their web-servers (Hosting-Providers). OFCOM, which has been delegated by ComCom (see above), grants licences according to the LTC (art. 4) and publishes a daily updated list of ISPs on its homepage[4]. At the end of 2000, OFCOM registered 122 ISPs on the Swiss telecommunication market. In the following year, this number increased to reach 156 ISPs. Among these, 71 were licensed (art. 4, para. 1, LTC), i.e. they rely mostly on their own telecommunications network to provide their services independently, and 85 were only subject to registration because they use existing infrastructure (art. 4, para. 2, LTC). If the number of ISPs seems to be quite high for Switzerland, this should not obscure the fact that most ISPs operate on a local or regional level only. The important ISPs, for their part, all have lost their independence during the last years and linked themselves to other business sectors[5]. This process of consolidation is expected to go even further. For example, a trend towards full service providers (fixed network and mobile telephony, internet access, as well as content provision) can already be discerned[6].

Bluewin[7], launched in 1996 by the former monopolist Telecom PTT, remains the market's leading ISP after the liberalization with more than 650'000 active access-customers per month (about 45% market share). Moreover, bluewin is the only important ISP to be still in the hands of national firms. In 1998, bluewin was integrated into Swisscom, the leading telecommunications company, whose majority shareholding still belongs to the Confederation. Since April 2000, TA-Media holds an 8% stake in bluewin, which became a profit centre of Swisscom Fixnet in October 2001 (92% stake). TA-Media is a leading Swiss

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[3] Acart is available at: http://www.wettbewerbskommission.ch/site/e/gesetze/kg.html.
[4] http://www.bakom.ch/Service_Provider_Liste/All_Types.htm
[5] Schweizerische Depeschenagentur (2000). „Schweizer ISP-Markt konsolidiert". *Neue Zürcher Zeitung* no. 12, edition of January 15, 2000, p. 25.
[6] Information Society Co-ordination Group (ISCG) (2001). *3rd Report of the Information Society Co-ordination Group (ISCG) to the Federal Council.* Biel: ISCG Support Office/OFCOM, p. 16.
Online: http://www.isps.ch/download/report_eng.pdf
[7] Data refers to the end of 2001 and is available at: http://www.bluewinag.ch.

media group whose business encompasses print media (e.g. Tages-Anzeiger, SonntagsZeitung, Facts) as well as electronic media like television (TeleZüri), radio (Radio Zürisee) and Internet (Winner-Gruppe)[8]. Thanks to this wide range of products, TA-Media can provide bluewin with new contents. Swisscom Fixnet, on the other hand, cooperates with bluewin in order to develop their broadband networks and accordingly to strengthen their position in this up-coming market. Thus, these strategic alliances not only allow bluewin to diversify its field of activities, but to consolidate its market position at the same time.

The second largest ISP in Switzerland, *freesurf* (about 525'000 active access-customers per month), originated from the merger of the two telecommunications providers (fixed network and mobile telephony) sunrise and diax holding to TDC Switzerland AG in November 2000. Founded in 1996 by the 6 biggest Swiss electric power companies, diax holding acquired the Swiss ISP Internet Access in 1998. Sunrise, which had alliances with the UBS, BT (British Telecommunications plc), TeleDanmark and the Swiss Federal Railways, purchased in the same year the ISP Plusnet AG. In the newly founded company, named TDC Switzerland AG, TeleDanmark holds a majority stake with almost 79%[9].

SwissOnline[10], another important ISP with about 200'000 access-customers per month, has belonged since 1998 to the country's largest cable operator Cablecom (penetration rate of 91%)[11]. Cablecom not only covers more than half the Swiss cable television market with its own services, but also delivers signals via its national fibre backbone to other cable operators. Cablecom Engineering, a subsidiary of Cablecom, constructed this national fibre backbone. Additionally, the company owns the Rediffusion AG, which runs over 40 specialist shops for consumer electronics, radio, TV, video and PCs. In March 2000 NTL Inc. New York purchased the Cablecom Group in order to roll out broadband across Switzerland. In Europe, NTL is currently operating in the UK, Ireland, France, Germany and Sweden[12].

In addition to these three ISPs, *Datacomm* is of some importance with about 50'000 access-customers by the end of 1999. Like other ISPs, this company lost its independence in January 2000 when it was purchased by the Italian Tiscali[13].

Besides data about access-customers deriving from ISP's press releases, www.providerliste.ch conducted in 2000 a survey among internet users. According to this study, 35% use freesurf, 13% bluewin, 11% Datacomm and 7% Swissonline. Even though the survey cannot be considered to be representative (230 participants only), it tends to confirm the leading market position of the four above-mentioned ISPs.

As the history of the three biggest Swiss providers suggests, ISPs need to diversify and concentrate on a wider range of telecommunications services in order to hold on to their market share. This happens mostly through trans-national alliances.

The liberalisation of the telecommunications market has not only set up a process of increasing concentration and competition among ISPs, but has also had effects on the development of access prices over the last years. In fact, both subscription fees and call costs have decreased tremendously since the opening-up of the telecom sector in 1998 (table 1).

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[8] http://www.tamedia.ch

[9] Data refers to the end of 2001 and is published under: http://www.sunrise.net/company/com_his.htm.

[10] Data refers to the end of 2001 and is available at: http://www.swissonline.ch.

[11] http://www.cablecom.ch/de/aboucc.html

[12] http://www.ntl.com/locales/europe/en

[13] AI (2000). "Italiens Tiscali fasst in der Schweiz Fuss: Erwerb der Mehrheit am Internet-Service-Provider Datacomm". *Neue Zürcher Zeitung*, no. 12, edition of January 15, 2000, p. 25.

Table 1: Access prices in Switzerland, 1998-2000 (prices for a connection of 20hrs)

	Call costs (Sfr.)		ISP: subscription fees (Sfr.)	Overall cost (Sfr.)		Change in %	
	normal	reduced		normal	reduced call costs	normal	reduced call costs
1998	112.60	112.60	25.50	138.10	138.10	--	--
1999	106.90	62.20	0.00	106.90	62.20	-22.6	-55.0
2000	87.72	66.61	0.00	87.72	66.61	-17.9	7.1

Source: Federal Office for Communications (2001), p. 18-19.

As shown by table 1, most ISPs introduced subscription free access to the Internet, which explains to a large extent the price reductions. These reductions are a prerequisite to the Information Society in Switzerland, which aims most prominently at "access for all" (see section 4 below).

Regulation of Internet content

The growing spread and importance of the Internet network around the world opens the door to a wide range of illegal activities. The diffusion of child pornography, acts of violence or racism via the Internet are only some of the most prominent examples, which confront the authorities with new legal disputes and call for measures to be taken.

It was in 1998 that the Federal Office for Police (FOP) discovered several sites disseminating racist content and thus violating article 261bis of the Swiss penal code. As a consequence, the Office turned to ISPs and called for a blocking of the relevant sites. In the eyes of the Federal Office, providing access to such sites could be qualified as aiding and abetting and be sanctioned accordingly. This position caused a stir among ISPs. As a reaction, a contact group was created in order to reconcile the interests of the authorities and ISPs[14].

In July 1999, the Federal Office of Justice published an expert's report on the subject. This report comes to the conclusion that according to the new media penal code, which became effective on April 1, 1998, ISPs may have a subsidiary responsibility if the author of any illegal content cannot be taken to court. Because of the distance between ISPs and the author, this responsibility, however, only applies if a prosecution service clearly points out the illegal content to the ISP concerned. As far as pornography (art. 197, para. 3 StGB), acts of violence (art. 135 StGB) and racial discrimination (art. 261bis, para. 4 StGB) are concerned, the new media penal code does not apply. In these cases, ISPs can be held responsible for aiding and abetting if they do not take any measures to prevent the diffusion of illegal contents they know about. This applies even if the author can be taken to court [15].

On the basis of this expert's report, the Federal Office for Police published a policy document in April 2000. Therein, it lays down the rules of conduct for ISPs, which consist basically in the blocking of relevant sites once they have been advised by the authorities[16].

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[14] This contact group was composed of members of ISPs and the Federal Offices for Police, of Justice, of Communication and for Informatics and Telecommunications.

[15] Federal Office of Justice (1999). *Gutachten zur Frage der strafrechtlichen Verantwortlichkeit von Internet-Access-Providern gemäss Artikel 27 und 322bis StGB*. Bern: Federal Office of Justice, p.28.
Online: http://www.bj.admin.ch/themen/ri-ir/access/intro-d.htm.

[16] Federal Office for Police (2000). *Die strafrechtliche Verantwortung von Internet Service Providern.* Bern: Federal Office for Police, p. 13.
Online: http://www.bap.admin.ch/d/archiv/berichte/weitere/2000-05-15-d-internet-isp.pdf.

Subsequently, the association of telecommunications companies (Verband Inside Telecom, VIT[17]) did not agree with the authorities' interpretation of the legal provisions. According to them, especially Access-Providers could not be held responsible, even in a subsidiary and restricted fashion. That is why a second report on behalf of VIT was written on the matter. This report of three professors of criminal law concludes that legislation should distinguish between different kinds of providers. Whereas Content-Providers should be liable without any restriction, Hosting-Providers should have a subsidiary responsibility only. Access-Providers, for their part, should be released from any responsibility[18].

In December 2000, a parliamentary motion[19] pointed to this controversy and called for an additional legal provision in the penal code. As did the professors in their report, the deputy emphasized the fact that the European Union had already issued a guideline and that Switzerland could not afford to lag behind. The Federal Council accepted the motion in its statement of February 2001 and expressed its willingness to consider respective European law while working out legislation on cyber-criminality. In fact, Switzerland signed the Council of Europe's Convention on Cyber-crime[20] in Budapest on November 23, 2001[21]. However, this convention has not been approved by Parliament so far, but is in principle compatible with Swiss law. Conversely, internal legal provisions have not yet accompanied this step towards legal harmonization between countries. The controversies among scholars regarding penal liability of ISPs thus have not been entirely resolved until now.

In addition to the above-mentioned controversy, limited personnel and financial resources equally complicate criminal prosecution. In fact, only a few cantons have a specialized police force to combat cyber-criminality. For these reasons, an inter-cantonal team for the fight against the abuse of new information and communication technologies (NICT) was constituted in June 2000 and presented some proposals in January 2001. Among other things, they suggested the creation of a monitoring authority within the FOP's division "Analysis and Prevention" as well as a clearing authority within the Federal Criminal Police. Their respective tasks would be on the one hand systematic enquiries about illegal content in the Internet and co-ordination of indictment and court procedures in the field of cyber-criminality, on the other hand. Furthermore, analytical capacities should be strengthened[22].

To sum up, we can say that Switzerland already has sufficient legal provisions in its penal code allowing regulation of Internet content and combat against cyber-criminality. However, as far as criminal prosecution is concerned, the shortage of resources, the lack of co-ordination between cantons as well as unsolved controversies about the liability of ISPs still hinder effective implementation.

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[17] http://www.vit.ch

[18] Niggli, Marcel Alexander, Riklin Franz and Günther Stratenwerth (2000). *Die strafliche Verantwortlichkeit von Internet-Providern. Ein Gutachten.* Bern: VIT, p. 44/45. Online: http://www.vit.ch/gutachten_isp.pdf.

[19] Pfisterer, Thomas (2000). *Netzwerkkriminalität. Änderung der rechtlichen Bestimmungen.* Motion 00.3714. Online: http://www.parlament.ch/afs/data/d/gesch/2000/d_gesch_20003714.htm.

[20] http://conventions.coe.int/treaty/EN/projets/FinalCybercrime.htm

[21] Jurius (2001). « Europaratskonvention über die Cyber-Kriminalität. Erstes internationales Übereinkommen zur Bekämpfung der Computer- und Internet-Kriminalität", in: *Jusletter*, 19.11.2001. Online: http://www.weblaw.ch/jusletter/Artikel.jsp?ArticleNr=1393

[22] Federal Office for Police (2001). *Cyberkriminalität. Die dunkle Seite der Informationsrevolution.* Bern: FOP, Division „Analysis and Prevention", p. 14/15. Online: http://www.isps.ch/ger/stored_documents/PDF/1412.pdf

2. Internet usage[23]

Having examined structural features of the Internet communication network, we will now turn to quantitative indicators depicting the usage of Internet in Switzerland. We will therefore not just look at the penetration of Internet in Swiss society but also at socio-demographic characteristics of Swiss Internet users. In a second step we will try to give a brief answer to the question: What do Swiss use Internet for?

Quantitative indicators of the degree of Internet usage

By the beginning of 2001 52 per cent of the Swiss population had used Internet at least once during a period of six months preceding the survey; 37.4 per cent did use Internet at least several times a week. Table 1 below shows the development of Internet penetration in Switzerland since Mai 1997 (Wave 1/98). By that time only 6.8 per cent of the Swiss population used Internet on a frequent basis[24]; 15.1 per cent did use Internet sporadically[25]. As comparative over time shows, the number of frequent Internet users has been multiplied by 5.5 within the 4 years of observation, while the number of sporadic Internet users has more than tripled.[26]

With a total average penetration of Internet (for the period of April 2000 to March 2001) of about 49%, Switzerland showed the highest level of penetration compared to several other western European countries such as Austria, Belgium, France, Germany, the United Kingdom and Spain included in the studies of the Pan European Internet Surveys. While in Germany 34 per cent of the population used Internet at that time and in France about 35 per cent did so.[27] But Switzerland occupies not just a leading place in terms of penetration but also in terms of daily usage. About 25 per cent of the Swiss population last used Internet "the day before" (Austria: 13%, Spain 9%) the survey was carried out. About 21 per cent of Swiss residents use Internet on average daily or almost daily (Austria: 11%, Spain: 9%).[28]

Table 2: Internet usage in Switzerland, development 1997-2001

	Individuals using Internet at least several times a week (engerer Nutzerkreis)	Individuals who used internet at least once during the six months before the survey (weitester Nutzerkreis)
Wave 1/98[29]	6.8 %	15.1 %

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[23] Since rapid evolution is immanent in the domain of the Internet it is extremely difficult to choose a period of reference. Existing data are somehow "volatile", changing almost every fortnight. Nonetheless we will try to use as recent data as available allowing us to grasp the actual state of development.

[24] Definition: at least several times a week. [Federal Statistical Office (2001). *Indikatoren zur Informationsgesellschaft. Indikator Internetnutzung.* Neuchâtel. p. 8.
Online: http://www.statistik.admin.ch/stat_ch/ber20/indic-soc-info/ind30106d_1_synth.htm]

[25] Definition: at least once during the 6 months preceding the survey. [*Ibid.* p. 8]

[26] *Ibid.*, p. 2

[27] EJIC – EURO-JIC's Pan European Internet Surveys (2002). p. 4.
Online: http://www.ejic.org; http://www.ejic.org/page4.html ;
For the Swiss case EJIC refers to data of WEMF surveys. For the year 2001 these are Wave 1/01 and Wave 2/01 from April 2000 to March 2001.

[28] *Ibid.*, p. 5. Online: http://www.ejic.org/page5.html

[29] WEMF is running two series of surveys a year. Wave 1/98: May 1997-October 97; Wave 2/98: November 1997-April 1998; Wave 1/99: Mai 1998-Oktober 1998; Wave 2/99: November 1998-April 1999; Wave 1/00:

Wave 2/98	10.6 %	19.7 %
Wave 1/99	12.9 %	24.8 %
Wave 2/99	17.9 %	30.2 %
Wave 1/00	19.3 %	34.0 %
Wave 2/00	26.4 %	40.6 %
Wave 1/01	32.6 %	47.1 %
Wave 2/01	37.4 %	52.1 %

Source: Federal Statistical Office (2001), p.2

While studying the development of the "new medium" called Internet, it is interesting to have a close look at the "environment of its usage". While in 1997 (Wave 1/98) 5.7 per cent of the population used Internet at least several times a week at <u>home</u>, 8.6 per cent did so at <u>work</u>. It was only by the beginning of the year 2000 that – for the first time – the majority of the Swiss population used Internet at home (25.2 per cent) instead of at work (24.3 per cent). This trend continues to persist as shown by recent data: Early in 2001 39 per cent of the Swiss resident population used Internet at least several times a week at home while 33.2 per cent continued to use Internet at least several times a week at work. This tendency to use Internet at home leads the Federal Statistical Office to conclude that Internet is becoming more and more a "medium like all the others".[30]

Socio-demographic characteristics of Internet users[31]

It is little of a surprise that also in Switzerland Internet has been and still is used in its majority by men. Survey data shows that the number of male Internet users persists to be much higher than the number of female Internet users, although a considerable evolution has taken place. While in 1997 almost 4 times as many men (11.1 per cent of the Swiss resident population) compared to women (3.1 per cent) used Internet at least several times a week, the relationship has considerably changed within 4 years. By early 2001 27.3 per cent of Swiss women used Internet compared to 47.9 per cent of their fellow male residents.[32]

As a survey undertaken by "IPSO" amongst the electorate in the Canton of Geneva shows the variable gender is strongly interwoven with age. While about 80 per cent of women and men aged 18 to 29 use Internet a wide gap opens especially when looking at the age group 40 to 49: still about 80 per cent of men belonging to this age group use Internet, compared to only about 45 per cent of women.[33]

March 1999-September 1999; Wave 2/00: October 1999-March 2000; Wave1/01: April 2000-September 2000; Wave 2/01: October 2000-March 2001.

[30] Federal Statistical Office (2001). *Op. cit.,* p. 6

[31] Information on the socio-demographic characteristics of Internet users in Switzerland is available from the Swiss Federal Statistical Office that uses without exception data gathered by *WEMF AG für Werbemedienforschung*, as cited already above.

[32] *Ibid.,* p. 3

[33] Kies, Raphaël and Alexander H. Trechsel (2001). « Le contexte socio-politique ». In: Auer, Andreas and Alexander H. Trechsel (éds.): *Voter par Internet? Le projet e-voting dans le canton de Genève dans une perspective socio-politique et juridique*. Bâle, Genève, Munich: Helbing & Lichtenhahn, p. 39

Table 3: Internet users according to age, development 1997-2001[34]

	14-19 years	**20-29 years**	**30-39 years**	**40-49 years**	**50++ years**
Wave 1/98	3.9%	12.1%	10.0%	7.7%	2.4%
Wave 2/98	7.2%	17.5%	15.0%	11.9%	4.4%
Wave 1/99	10.6%	23.4%	17.2%	12.7%	6.0%
Wave 2/99	19.0%	31.0%	22.8%	19.5%	7.3%
Wave 1/00	20.6%	31.1%	25.9%	21.5%	7.9%
Wave 2/00	32.6%	40.5%	32.9%	29.9%	11.9%
Wave 1/01	42.8%	49.3%	41.1%	35.7%	15.0%
Wave 2/01	49.2%	55.6%	46.8%	39.6%	18.3%

Source: Federal Statistical Office (2001), p. 5

In terms of age table 2 shows that the highest proportion of Internet users can be found amongst 20 to 29 year olds. Early in 2001 55.6 per cent of the Swiss population aged 20 to 29 used Internet at least several times a week, while only 18.3 per cent of persons aged 50 and more did so. This latest group represents the weakest one in terms of Internet usage since the "early days". Youth aged 14-19 used to be a group almost as weak as the just mentioned one (1997), by 2001 however they represent the group with the second highest quota of frequent Internet usage.[35]

Another important socio-demographic indicator to be taken into consideration is the level of education. All along the 4 years for which consistent survey data is available, the following relationship remains quite clear: the higher the level of education the higher the proportion of persons using Internet. While in early 2001 only 22 per cent of Swiss residents with obligatory education used Internet at least several times a week, 58.4 per cent of persons with a higher education and 70.8 per cent of persons with a University degree did so.[36] As table 3 below shows clearly, the gap between less educated and highly educated persons (speaking about level of formal education reached) becomes even wider as the total proportion of Internet users rises.

Table 4: Internet users according to formal level of education, development 1997-2001[37]

	Obligatory education	**Secondary education**	**Tertiary education (higher professional education)**	**Tertiary education (University or equivalent)**
Wave 1/98	0.9%	4.2%	16.8%	23.2%

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[34] Definition of Internet user: person who uses Internet at least several times a week.
[35] Federal Statistical Office (2001). *Op. cit.,* p. 5
[36] *Ibid.,* p. 4
[37] Definition of Internet user: person who uses Internet at least several times a week.

Wave 2/98	1.9%	7.2%	20.4%	32.2%
Wave 1/99	2.8%	9.6%	25.9%	35.5%
Wave 2/99	4.9%	14.1%	34.3%	43.9%
Wave 1/00	7.6%	17.7%	37.0%	48.4%
Wave 2/00	13.0%	24.0%	46.6%	59.2%
Wave 1/01	17.7%	30.2%	56.9%	63.5%
Wave 2/01	22.0%	35.0%	58.4%	70.8%

Source: Federal Statistical Office (2001), p. 4

As survey data additionally shows, the household income can be considered as an intervening variable (at least if it is rather low): Only 6 per cent of the Swiss population living in households with an income up to 4000 Swiss Franks a month used Internet in the beginning of the year 2000 compared to 34.6 per cent and 38.5 per cent living in a household with a monthly revenue of 4000 to 8000 Swiss Franks or more than 8000 Swiss Franks respectively.[38]

Inversely, according to the Information Society Co-ordination Group (ISCG), no data is available about the number and motives of those persons who do not wish access to the Internet, although they would have the means and possibilities.[39]

Digital divide[40]

The concept of "digital divide" is constantly present in official documents concerning Internet and Internet strategies. The Swiss Federal Council – in its Strategy for an Information Society in Switzerland - touches upon this subject without referring to the term of "digital divide". Section two of the Strategy mentions four principles, two of which – "access for all" and "empowerment for all" – aim at the avoidance of a digital divide. As concrete measures to be taken against the emergence of such a digital cleavage the Strategy proposes most prominently a training offensive in order to prepare all inhabitants of Switzerland, regardless of their age, for the information society and its challenges.[41]

The Information Society Co-ordination group (ISCG) – in its 3rd report to the Federal Council – dedicates considerable space to the question of a digital divide. It uses the term in a twofold way: On the one hand there is concern about a digital divide within Switzerland. On the other hand the term is being used to illustrate the potential danger of a digital cleavage between industrial countries and developing countries and Switzerland's responsibility therein. The ISCG is concerned about a widening gap in terms of information and communication technologies which would entrain the danger that developing countries will not be able to pursue a rise in living standards and education of their population and consequently will not

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[38] Hunziker, Daniel (2001). *Onlinemarkt Schweiz. Zahlen, Fakten & Trends*. Bern: Universität Bern, Institut für Wirtschaftinformatik. p. 3.
  Internet is being used by 20.9 per cent of all those persons not responding to the question of their household income.
[39] ISCG (2001). *Op. cit.*, p. 31.
[40] See also chapter 4 below.
[41] Swiss Federal Council (1998). Strategy of the Federal Council for an Information Society in Switzerland. Bern: Federal Council, p. 14. Online-version: http://www.isps.ch/eng/stored_documents/PDF/42.pdf

be able to develop their economy fruitfully. Switzerland, who already supported projects of this kind in its cooperation for development – especially in multilateral form (e.g. Worldbank, UNESCO, etc.) – will continue to engage in such projects.[42]

Apart form such international aspects the ISCG also considers a possible digital divide within Switzerland. It evaluates in its 3rd report to the Federal Council that the objectives concerning the "access for all" are mostly fulfilled since access for moderate prices independently from time and location can be seen as given. However the cost of acquiring hardware (computer) remains a relative barrier for the access to the Internet.[43]

According to the ISCG the digital divide in Switzerland follows traditional socio-demographic lines, adding another dimension. Scientific research on the consequences of such an e-dimension of traditional social cleavages however has not yet been undertaken.[44]

Most frequently used sites and e-commerce in Switzerland

To conclude this part of the description of the "internet landscape" in Switzerland we might want to have a look at some additional survey data, answering questions such as: What is Internet in Switzerland used for? Which are the most popular websites? And what about e-commerce customers in Switzerland?

Between 14th May 2001 and 4th July 2001 WEMF conducted a research in the German speaking part of Switzerland amongst individuals aged 14 and above who use Internet for private or professional purposes concentrating on questions linked to Internet as a commercial platform. This survey included a question on the usage of different "service domains" accessible via Internet. As the WEMF survey could show an average person uses 17 out of 48 service domains. At home the average of service domains used per person is 15; elsewhere than at home *("ausser Hause")* the average Internet user tends to use only seven service domains provided via Internet.[45]

E-mail is by large the most popular "service" which is operational via Internet. 97 per cent of all Internet users in the German speaking part of Switzerland – or 1.948,000 individuals – use electronic mail. 86 per cent of Swiss German Internet users utilize search engines – which makes them the second most popular service. Access to phonebooks and access to timetables of public transport and airplanes follow on the 3rd and 4th place with 75 per cent and 74 per cent respectively. Still 68 per cent use the possibility of downloading programs (5th place). The following services take places 6 to 10 in the ranking: consulting (city-)maps and roadmaps (67 per cent), visiting homepages of friends (64 per cent), surfing online just for fun without any aim (64 per cent), sending SMS (61 per cent), reading daily news (58 per cent). 49% of Swiss German Internet users draw on the Internet for shopping with the direct possibility of ordering or booking (15th place in the ranking of the most popular services).[46] We will come back to that later. But first, let's have a look at the most popular websites.

Table 5: most popular websites in Switzerland – top 10[47]

	Website (URL without www.)	Total of users in 1000[48]

[42] ISCG (2001). *Op. cit.*, p. 13/14.

[43] *Ibid.*, p. 31.

[44] *Ibid.*, p. 32/33.

[45] WEMF AG für Werbemedienforschung (2001). *Report special 10. MA Comis 2001*. Zürich: Eigenverlag. p. 4. Online: http://www.wemf.ch/pdf/d/Comis01%20Special.pdf

[46] *Ibid*. p. 4

[47] Note that three out of the top 10 Internet sites represent Swiss media websites (Blick, NZZ, Tagesanzeiger).

1	bluewin.ch, bluewindow.ch, bluewin.com	755
2	search.ch	545
3	search.bluewin.ch, sear.ch	237
4	blick.ch	216
5	tel.search.ch	206
6	swissonline.ch	204
7	tages-anzeiger.ch, tagesanzeiger.ch, tagi.ch, tagesanzeiger.com, tages-anzeiger.com	137
8	nzz.ch, nzz.com	136
9	etv.ch	132
10	swisstalk.ch, swisstalk.com	107

Source: WEMF AG für Werbemedienforschung (2001), p. 3

According to Nielsen NetRatings (cited by NUA) Swiss users went online an average of 14 times during the month of May 2001 and spent an average of five hours 36 minutes online, which means 23 minutes per session. "The average number of pages viewed by Swiss users in May 2001 was 511, with 40 seconds spent on each page on average." [49]

As WEMF could show in its survey (see already further above) websites providing e-mail-services as well as search engines are on top of the list of the most frequently used websites in Switzerland. 1.012,000 persons used the websites bluewin.ch (bluewindow.ch, bluewin.com) in the last 6 months (weitester Nutzerkreis). 755.000 Swiss-Germans visited this same site daily, almost daily, several times a week or approximately once a week. It is little of a surprise – having looked at the most popular services as we did above – that electronic phonebooks (tel.search.ch, etv.ch) hold a very prominent place in the ranking of most frequently uses websites in Switzerland. Equally three newspaper websites are included in the top 10: Blick, Tagesanzeiger and Neue Zürcher Zeitung (NZZ).[50]

The WEMF listing of 56 websites does not include any website of a political party, any governmental websites or the like. Unfortunately the survey document does not mention the way in with the list given to the interviewed persons had been conceptualised. Any statement on websites potentially relevant for our field of study – other than media websites – remains therefore impossible.

We shall close this section by very briefly looking at data related to e-commerce. According to the already cited study carried out by WEMF in the German speaking part of Switzerland 60 per cent of all Internet users have already bought something online at least once; 51 per cent out of these 60 per cent had done so during the last six months. This equals a potential of about 1.208,000 e-commerce customers.[51] The commodities most frequently bought online are books. 60 per cent of all e-commerce customers – or put in absolute numbers: 728.000

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[48] Total of Swiss German Internet users aged 14 and above using the website daily, almost daily, several times a week or approximately once a week. (enger Nutzerkreis)

[49] NUA (2001). *Nielsen NetRatings: Swiss home user base reaches 3.2m*. Jun 26 2001.
Online: http://www.nua.ie/surveys/?f=VS&art_id=905356908&rel=true

[50] WEMF AG für Werbemedienforschung (2001). *Op. cit.,* p. 3

[51] *Ibid.*, p. 5

persons - bought books via Internet. Music follows with 43 per cent on the second place on this hit list of articles bought via Internet, as well as tickets and ticket reservations (43 per cent). 33 per cent of all e-commerce customers had booked or reserved hotel rooms via Internet, while 32 per cent had bought computer accessories and hardware.[52] Given our research interest we renounce to going into further detail about the very various aspects of e-commerce. Instead we will try to describe in some more detail how the usage of site types relevant to our study and – as far as possible – how Internet strategies of such actors look like.

3. Collective actors and Internet

Media

Since the middle of the 1990s Swiss print media as well as electronic media conquered the Internet offering their own websites. By 2000 about three fourth of all Swiss radio stations were online as well as 18 TV stations nationwide.[53] An even higher presence online can be observed concerning print media: almost all Swiss publishing companies are represented on the Internet. [54]

During a first phase especially print media declared being online essentially for commercial reasons. As Wanner describes radio stations – during a first period also present on the Internet for commercial reasons – renounced very quickly from such a strategy. Ideally, as experience showed, a radio website had to be as close as possible to the appearance "on air". The fact that traditional boundaries between different types of media continue to persist strongly indicates that specialists of traditional media perceive Internet not so much as a new medium but rather as a new means of diffusion, an additional channel.[55]

Data on the motives for Internet usage show that 45% of Swiss Internet users who used Internet at least several times per week did so to access the online offer of newspapers and magazines in the second half of 2001.[56]

Table 6: Usage of online content of newspapers and magazines in Switzerland

Usage of online content of newspapers and magazines (%)							
Wave 1/98	Wave 2/98	Wave 1/99	Wave 2/99	Wave 1/00	Wave 2/00	Wave 1/01	Wave 2/01
43.9	46.1	48.4	48.7	49.0	50.3	47.3	45.0

Source: Federal Statistical Office (2001), p. 7

The data in table 5 suggest a decline in the share of Internet users who use online content of newspapers and magazines over the last years. While the share of users increased from the first half of 1998 to the second half of 2000 the share declined in 2001. Whether or not this represents a trend or just a kind of oscillation cannot be decided on the basis of these data.

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[52] *Ibid.*, p. 6
[53] Wanner, Christine (2000). *Das schweizerische Mediensystem im Überblick.* VSAO. Journal 7/2000. p. 2.
    Online: http://www.vsao.ch/journal/07_2000/mediensystem.html
[54] Schweizer Revue: *Schweizer Medien im Internet. Vielfalt im Netz.*
    Online: http://web055.petrel.ch/deutsch/06-96/medien/vielfalt/vielfalt.htm
[55] Wanner, Christine (2000). *Op.cit.,* p. 2.
[56] Federal Statistical Office (2001). *Op. cit.*, p. 7

In order to give a comprehensive overview, we shall also have a look at the usage and perception of the Internet in comparison to other types of media – using data of a survey conducted by Baromédia between the 26th of January 2001 and 17th of February 2001. As the study shows quite clearly radio (73 per cent), television (66 per cent) and newspapers (61 per cent) remain the main types of media consumed in Switzerland on a regular – that is daily – basis. Free newspapers (Gratiszeitungen) are being read by 48 per cent of the Swiss population regularly – meaning in this case: weekly. In this Baromédia ranking Internet follows on the 5th place with a proportion of regular (that is: weekly) users of 45 per cent early in 2001. [57]

It is interesting to observe that daily newspapers as well as the Internet best satisfy the informative function of a medium. 75 per cent and 58 per cent of the Swiss population respectively declare using mainly those two media in order to get informed.[58] Radio and television on the other hand fulfil a double function serving as a means of information as well as a means of divertissement [59].

Baromédia took the question of the relationship between media consumers and media one step further asking questions about the confidence with respect to each medium.[60] Although "teletext" occupies the last position in terms of regular usage, it represents the medium Swiss trust in most (84 per cent). Radio follows on the second place with still 75 per cent of the Swiss population declaring to trust or completely trust this medium to diffuse true information. 69 per cent express confidence in television and 67 per cent in print media, while only 53 per cent are confident that information provided by the Internet depicts reality correctly.[61]

Communes

33 per cent of all Swiss communes dispose of their own websites. This represents 4.8 million inhabitants or – expressed otherwise – 68 per cent of the population. Until the End of 2001 50-60 per cent of all communes intend to dispose of a website – compared to 59 per cent of all enterprises with at least five collaborators.[62]

Whether or not a commune runs its own website is strongly dependent on the size of the commune. While all eight Swiss cities with more than 50.000 inhabitants run their own

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[57] Baromédia (2001). *Jährliches Barometer der Schweizer Medien. Konsum, Aufgaben, Vertrauen, Werbung.* Zürich: Ringier AG. p. 4. Online: http://www.webdo.ch/downloads/baro2001_d.pdf
The remaining ranking reads as follows: weekly journals 38 per cent, Mobile phoning 31 per cent, monthly magazines 29 per cent, cinema 21 per cent, "teletext" 18 per cent. Regular usage meaning: daily for "teletext" and mobile phoning, monthly for cinema and monthly magazines. [*Ibid*., p. 4]
Baromédia has developed a socio-cultural typology of media users in Switzerland, distinguishing between "Senioren", "Klassischen", "Knabberern", Info-Aktiven", "Entwurzelten", "Fernsehsüchtigen" und "Kritischen". For reasons of space and purpose we will not be able to use this typology. [*Ibid*., p. 5/6.]

[58] *Ibid*., p. 7.
2 per cent use daily newspapers for divertissement, 23 per cent of the Swiss population uses daily newspapers for information as well as divertissement; 12 per cent of the Swiss population use Internet exclusively for divertissement, 30 per cent use Internet in the double function. [*Ibid*., p. 7]

[59] Radio: 20 per cent Information, 32 per cent divertissement, 48 per cent both functions; television: 17 per cent Information, 22 per cent divertissement, 61 per cent both functions. [*Ibid*., p. 7]

[60] Question concerning confidence: "Wenn Sie an die verschiedenen Medien denken, geben Sie an, ob Sie diesen vertrauen; das heisst, glauben Sie, dass die Informationen, die diese Medien verbreiten, die Realität nicht verfälschen? Sagen Sie mir nun für jedes Medium, das ich Ihnen nenne, ob Sie diesem völlig vertrauen, vertrauen, wenig vertrauen oder überhaupt nicht vertrauen." [*Ibid*., p. 8]

[61] *Ibid*., p. 9

[62] Bucher, Peter (2001): *E-government in 10 Schritten. Aspekte erfolgreicher e-government Projekte.* Arthur Andersen. Electronic government umsetzen. IDT-Tagung vom 21. Mai 2001. p. 5.
Online: http://www.egovernment.ch/downloads/egov_in10schritten.pdf

website only less than 10 per cent of communes counting less than 500 residents do so.[63] [64] 61.2 per cent of all Swiss communes now present in the Internet decided during the last three years to install their own communal websites. Since such projects do not look back to a very long history their primary aim remains the diffusion of information.[65] Certain communes distinguish further goals such as "city marketing" (62)[66], "improvement of the image" (31), "improvement of services provided for citizens" (51), "e-mail communication" (39), " online settling of administrative matters" (30). The main target groups aimed at with communal websites are defined as being all residents of the commune. Target groups like potential future inhabitants or presently absent persons join the core group, once a larger definition is adopted. A splitting of the offer according to narrowly defined target groups is not being considered as part of the communal Internet concepts.[67]

While 66.4 per cent of all communes already disposing of websites estimate that by 2005 e-government will be of major importance, communes remain very cautious regarding online processes of administration and more complex forms of communication between the administration and the citizen. Online formularies with payment functions, chat and participation of citizens (Bürgerbeteiligung) or e-voting very rarely used techniques which in principle are being made possible by the Internet. As in the case of the cantons (see below) missing financial and personal resources are the most restraining factors that communes have to face in developing their Internet strategy. All e-government activities up to now are being paid from the communal budget. This restraining fact leads some communes to evoke the possibility of (partly) financing their websites via sponsoring and advertisement.[68]

In order to "reflect" the vision of Internet as expressed by the communes we shall briefly look at the "consumer side of the enterprise". 61 per cent of all Internet users who's communes offers a website did visit those sites at least once during the twelve months preceding the survey. Most of the users (80 per cent) did so sporadically and/or by pure interest to get to know the websites of their commune. 50 per cent of Internet users declared to use the websites of their commune in order to find information on specific issues.[69] 19 per cent of Internet users visit the communal homepage intending to settle administrative matters online. 72 per cent would wish to order their passport or identity card via Internet. And 66 per cent declare being willing to participate in online votations and elections on the communal level.[70] Only 3 per cent of the interviewed citizens affirm generally not being willing to use the websites of their commune.[71]

Cantons

All of the 26 Swiss cantons dispose of an own Internet site, the first of which had been realised in 1995. Four cantons joined the others on the Internet just in the years 1999 or 2000. The provision of information is regarded as the main purpose of the cantonal presence on the

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[63] Prognos (2001). *ICT im öffentlichen Sektor in der Schweiz. Untersuchung zu Einsatz und Perspektiven von Informationstechnik, Internet und Electronic Government bei Kantonen und Gemeinden.* (Kurzfassung). Basel: Prognos AG. p. 7
[64] The Federal Office for Communication mandated Prognos in October 2000 with a research concerning information and communication technology in the Swiss cantons and communes. Fieldwork and analyses have been concluded by 12th February 2001.
[65] 43.1 per cent of all communes update information only once a week; 29.4 per cent even only once per month investing on average about 10 working hours per month for such updates. [Prognos (2001), *Op. cit.*, p. 10]
[66] Numbers in brackets: number of communes mentioning this aim.
[67] Prognos (2001). *Op. cit.*, p. 10
[68] *Ibid.*, p. 12
[69] *Ibid.*, p. 18
[70] Bucher, Peter (2001). *Op. cit.*, p. 4
[71] Prognos (2001). *Op. cit.*, p. 19

Internet. 19 cantons answered accordingly to the question about the three main goals they intend to realise by being online. Some cantons mentioned further and more demanding goals, such as "communication and interaction" (9 cantons), "information of the media" (4 cantons), "improvement of administrative processes" (6 cantons), "e-government and first preparatory steps towards it" (6 cantons) or again "work on the image of the canton" (4 cantons). The target groups of cantonal websites are generally speaking not very well defined. Such an absence of clear definition reflects the attempt not to focus on specific groups but to provide information and services for "everyone". Nonetheless it becomes quite clear that the cantonal population is seen to represent the core user.[72]

Thirteen out of 22 cantons foresee a re-conception of their websites, ten of which where meant to take place until the end of 2001. The cantons Jura, Appenzell Ausserrhoden, Graubünden und Uri declare to dispose already of an e-government strategy. Ten more cantons are on their way to elaborate such a strategy or will approve of it within the year 2001. Only six cantons resign to the development of any such concept.[73] The following citation shows quite nicely how certain cantons approach (future) e-government: "Dienstleistungen der Verwaltung des Kantons Zürich sollen zeit-, ort- und strukturunabhängig in bürgerfreundlicher Weise und strukturiert nach Lebenslagen über das Internet abgewickelt werden können." [74] While the majority of cantons agree that e-government will play an important or very important role by 2005 (16 cantons), the actual importance by the end of 2000 is being estimated as (rather) low. Nonetheless – with view to the future importance of the Internet – cantons wish to improve their offer: several cantons plan to provide of more information concerning the domains of construction and public health; they wish to improve communication functions primarily in the domains of education, construction and public health. Fifteen cantons are planning to develop "functions of transaction" concerning financial and taxation matters.[75] However, cantons just as communes have to face several restraining factors concerning the development of their websites. Missing financial and/or personal resources constitute the main handicap. Moreover organisational problems and problems concerning decision processes can exercise a restraining effect on a further development.[76]

In order to put the vision of Internet as expressed by the cantons into context, we want to very briefly look at the expectations of users of cantonal websites. Generally speaking users of cantonal websites count on a vast offer of information, communication and transaction facilities. 32 per cent of all persons who visit the website of their canton of residence do so with the intention to resolve administrative matters. 76 per cent even would wish to settle their tax declaration online. And while 73 per cent would desire to get in contact with the service responsible for their concern in question, 31 per cent of all persons visiting a cantonal homepage would like to engage in a dialogue with their cantonal administration.[77]

Confederation

At the Internet address http://www.admin.ch the Swiss Confederation can be found online. The site is essentially structured along the formal organisation of the administration and does not yet incorporate the essential elements of the "guichet virtuel", as described in section 4 below. The site offers links to the federal council (executive), the chambers of parliament (legislative), the judiciary as well as all 26 cantons and representations abroad.

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[72] *Ibid.*, p. 3/4
[73] *Ibid.*, p. 5/6
[74] Kanton Zürich nach: Bucher, Peter (2001). *Op. cit.*, p. 10
[75] Prognos (2001). *Op. cit.*, p. 5
[76] *Ibid.*, p. 4
[77] *Ibid.*, p. 20

At this stage we will not go into further detail about the Internet strategy of the Swiss Confederation. More information will be given in section 4 below.

Political parties, NGO's and Unions

As to our knowledge, no systematic studies have yet been conducted concerning Internet strategies of NGO's, citizen groups and Unions in Switzerland.[78] The same lack of empirical research must be stated concerning Internet strategies of political parties.

Internet usage related to election campaigns and campaigns on popular votes

Very little information is available on the "provider side" of political communication via Internet. A research carried out by Suter analyses election campaign "leaflets" on the Internet during the 1998 Zurich city council (the city's collective government) elections, studying in detail certain aspects of Internet sites that have been applied by the 15 candidates who used Internet as a campaigning platform.[79] Furthermore we know for instance that about 15 per cent of all candidates to the federal parliamentary election of autumn 1999 had used Internet in their campaign. About one fourth of parliamentarians disposed of their own website. [80]

As Longchamp argues, the breakthrough of political Internet usage in Switzerland took place in the context of the popular vote on the "Genschutz-Initiative" in June 1998. In this case the three main political actors involved (pharmaceutical industry, Greenpeace, and scientists) extensively used Internet – on the one hand in their fields of work and on the other hand – consequently – also in their campaigning.[81]

Since more details information on the strategy of collective actors is missing, let's turn to the "user side" of political communication via Internet during election campaigns and campaigns on popular votes. The "Selects 1999" survey conducted after the 1999 federal parliamentary elections included a question with regard to the usage of websites of political parties during the election campaign.[82] Only 11.1 per cent of all respondents (223 individuals) declared to have used websites of political parties. 0.7 per cent did so very frequently, 2.8 per cent frequently and 8.3 per cent rarely, whereas 88.9 per cent never visited such websites. But still, differentiating between voters and non-voters some difference becomes visible. While the proportion amounts to 14.4 per cent for voters, it falls down to 5.7 per cent for non-voters. Being asked about the influence different media had on the individual political choice for the 1999 federal parliamentary elections, 72.6 per cent of the voters affirm that the websites of the political parties had had no influence what so ever. Only 6.1 per cent declare that such websites had been more than just moderately important for the constitution of their political

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[78] An organisation-sociological study carried out in 1998 looks at the meaning and importance of computer networks for associations from a mere theoretical point of view. [Geser, Hans (1998). Die funktionale Bedeutung der Computernetze für assoziative Vereinigungen und Verbände. Zürich: Sociology in Switzerland Online Publications. Online: http://socio.ch/movpar/t_hgeser2.htm]

[79] Suter, Hansueli (date missing). Politische Wahlkampfwerbeprospekte im Internet. Am Untersuchungsgegenstand der Züricher Stadtratswahlen '98. Zürich: Sociology in Switzerland Online Publications. Online: http://socio.ch/movpar/t_suter01.html; http://socio.ch/movpar/t_suter02.htm; http://socio.ch/movpar/t_suter03.htm

[80] Longchamp, Claude (2000). *E-government und e-voting zwischen Optimismus und Pessimismus. Zu den Auswirkungen der Nutzung neuer Informations- und Kommunikationstechnologien auf die (schweizerische) Politik*. Referat, Bern. p. 4. Online: http://www.polittrends.ch/internetundpolitik/e-government.html Information referring to 1999.

[81] *Ibid*. p. 4

[82] The question reads as follows: >During the weeks prior to the election, did you use websites of political parties "very frequently", "frequently", "rarely", or "not at all"?< [Kies, Trechsel, (2001). *Op. cit.,* p. 16]

opinion.[83] The GfS Institute carried out a survey preliminary to the 1999 federal parliamentary elections.[84] As it could show, the typical/ideal person most frequently using Internet as a means of political information was a potential FDP voter[85], disposing of more than 9.000 Swiss Franks monthly household revenue, aged 18 to 29, male and Swiss German.[86]

The "VOX" surveys carried out since the 1970s the day after federal votes include a question about information channels used prior to federal votes. Since the votation of June 7th 1998 Internet has been included in the list of possible media. As Kies and Trechsel show, on average only 3.3 per cent of all voters used Internet as means of information[87] on issues being subject to popular vote.[88]

Usage of e-government facilities

Since the two main e-government projects – e-voting and *guichet virtuel* – are still in a phase of testing and internal evaluation, no empirical data on the actual usage of such facilities is (can be) available. Furthermore – as to our knowledge – no empirical results concerning e-government usage in "early-applier" cantons or communes do exist.

Such empirical data is however available for a very specific event: The latest national Population Census – carried out in December 2000 – offered the possibility to answer the questionnaire online via Internet. 280.000 persons used this opportunity. This represents about 120.000 households or 4% of all persons obliged to answer.[89]

We shall conclude this section – unfortunately leaving open essential questions about the potentials of active participation and political mobilisation via Internet, as related data has not been available to us. [90] The following section 4 will be devoted to government policies regarding access to the Internet.

4. Government policies regarding access to the Internet

The objective of this section is threefold. First, we give a general overview of the Federal Council's strategy for an Information Society in Switzerland. Then, we describe

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[83] The question reads as follows: "When choosing between parties and candidates, we can be influenced by different media. I would like you to tell me, how important each of the following media was for your proper choice. Tell me for each medium a number between 0 and 10. 0 meaning "not important at all" and 10 meaning "very important". [*Ibid*., p. 16/17]

[84] Survey period: September 1999; n=776 individuals who declared intending to participate in the elections taking place in November 1999.

[85] As Longchamp could show 11% of all potential FDP (Radicals) voters used Internet at least once seeking information on the election of the National Council and the Council of States while only 7% of potential voters of the Socialist Party (SP), Swiss People's Party (SVP) or Christian democrats (CVP) did so. [Longchamp, Claude (1999). *Rekordverdächtige Internet-Nutzung vor den Parlamentswahlen 1999. Hauptergebnisse einer Repräsentativ-Befragung des GfS-Forschungsinstituts zu „Internet und Wahlkampf".* Bern: GfS-Forschungsinstitut. p. 2. Online: http://www.polittrends.ch/internetundpolitik/wahlkampf.html]

[86] *Ibid*., p. 2-4.

[87] In regard to the vote of September 2000 and November 2000 the proportion had slightly risen to about 5 per cent.

[88] Kies, Raphaël and Alexander H. Trechsel (2001). *Op. cit.,* p. 18

[89] ISCG (2001). *Op. cit*., p. 38.

[90] Longchamp, in his report on Internet usage during campaigns on popular votes, undertakes a socio-demographic analysis on the basis of 6 „VOX" surveys. We decided however not to include the results of this analyses in this report, because they are highly „volatile", not being able to present a coherent picture.

governmental policies regarding access to the Internet in a general fashion. Third, we focus on policies, which aim for promotion of the Internet as an arena for political participation and communication.

Strategy for an Information Society in Switzerland

Given the growing importance of new information and communications technologies (NICT) in different sectors of society, the Swiss Federal Council commissioned in February 1996 an independent *Groupe de réflexion* to elaborate a plan of action for the implementation of "an Information Society" in Switzerland. In June 1997 the group presented a report proposing several actions in the fields of education, state and law, economy as well as culture and medias[91]. On the basis of this preliminary work, the Federal Council formulated its strategy for an Information Society in Switzerland on February 18, 1998[92], which considers NICT as a great opportunity for both the Swiss economy and population. This strategy defines four principles to be followed for promoting an information society. Most importantly, *access for all* has to be guaranteed independent of place and time, at all levels and at affordable prices. Second, *empowerment of all* has to be assured through further training at all levels of education. Third, *freedom of development* is required in order to develop the information society through private initiative and free competition. Finally, *acceptance* of NICT is a prerequisite for the information society and is to be achieved through a responsible relationship with the new technologies, the guarantee of basic and human rights as well as enforcement of the law. These principles should guide all activities in eight prioritised areas defined as the following: training offensive, increasing the attractiveness of Switzerland as an economic location, electronic commerce, electronic administrative communications, new forms of culture, security and availability, scientific follow-up and, finally, law[93]. In order to ensure the co-ordination and co-operation of all efforts, the Federal Council set up an Information Society Co-ordination Group (ISCG), which is headed by the director of OFCOM and annually publishes reports about the status of the information society project[94]. Whilst initial reports deplored the contrast between an excellent infrastructure and a relatively modest utilisation of NICT[95] as well as a lack of awareness[96], the latest study noticed considerable development towards the information society[97]. In comparison with the EU, however, shortfalls do exist in the areas of training, e-government, the recognition of the digital signature and the prevention of a digital divide in society[98]. This is why a private initiative, the CH21 Impulse Program, was launched in April 2001. Limited to 24 months, the

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[91] Groupe de Réflexion (1997). *Für eine Informationsgesellschaft in der Schweiz. Bericht zuhanden des Schweizerischen Bundesrates*. Biel: Groupe de Réflexion. Online : http://www.intro.ch/groupedereflexion/de/.

[92] Swiss Federal Council (1998). *Strategy of the Federal Council for an Information Society in Switzerland*. Bern: Federal Council. Online: http://www.isps.ch/eng/stored_documents/PDF/42.pdf.

[93] According to the 2nd report of ISCG, priority is now given to the three areas education, eGovernment and the legal framework for e-commerce (digital signature).
Online : http://www.isps.ch/ger/aktivitaeten_des_bundes/grundlagen/welcome.html.

[94] All documents, reports and press releases relating to the Information Society Project in Switzerland (ISPS) can be obtained at http://www.isps.ch/. This web site is the most important means of information on the activities of the Federal Government concerning the Information Society Project.

[95] ISCG (1999). *1. Bericht der Koordinationsgruppe Informationsgesellschaft (KIG) an den Bundesrat.* Biel: Supportstelle KIG. Online: http://www.isps.ch/ger/aktivitaeten_des_bundes/grundlagen/welcome.html.

[96] ISCG (2000). *2. Bericht der Koordinationsgruppe Informationsgesellschaft (KIG) an den Bundesrat.* Biel: Supportstelle KIG. Online: http://www.isps.ch/ger/aktivitaeten_des_bundes/grundlagen/welcome.html.

[97] ISCG (2001). *Op.cit.* p. 52.

[98] ISCG (2000a). *"eEurope – an information society for all" and the strategy of the Federal Council for an information society*. Biel: ISCG Secretariat.
Online: http://www.isps.ch/ger/aktivitaeten_des_bundes/grundlagen/welcome.html.

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program is meant to guarantee that Switzerland becomes one of the leaders in the area of NICT, especially in the fields of training, government, society and enterprises[99].

Government policies regarding access to the Internet

As demanded by the "Strategy for an Information Society in Switzerland", all inhabitants should have financially reasonable access to NICT, regardless of time and place[100]. Today, this requirement can be regarded as at least partially fulfilled given the fact that free access financed by advertising and local rate call costs have become commonplace. However, most PCs are in companies or administrations and Internet use still varies according to education, income or age[101]. Furthermore, only 30% of primary schools are connected to the Internet, which is one of the lowest rates among western countries[102]. For all these reasons, the Federal Council emphasised the need for an education and further training initiative. At the heart of this initiative lies the public-private partnership "*Schools on the Net*". The objective of this partnership is twofold. On the one hand, it intends to equip all primary and secondary schools in Switzerland with the new technologies. Consequently, all young people in every part of the country can enjoy fast and simple access to the Internet. On the other hand, teachers and school organisations must be capable of integrating NICT into their teaching in order to make a better use of it[103]. The realisation of this nation-wide project is based on a co-operation between the Confederation, the cantons and private business. Whilst the latter provides infrastructure and services at preferential terms[104], the Confederation will focus on training and further training of teachers. For this purpose, the Federal Council decided in March 2001 to have a law drafted, by virtue of which federal support (100 million CHF) would be provided over five years. This law was approved by Parliament in December 2001 and is expected to come into force in April 2002[105]. The cantons, for their part, assume the implementation and co-ordination of the project with existing initiatives in the field of NICT. Furthermore, they are supposed to continue the initiative by means of their ordinary budget once the time-limited commitment of the Confederation has come to an end. For the moment, a pilot phase has already started in six cantons[106] where 250 schools are currently being equipped with the new infrastructure.

In addition to the public-private partnership "Schools on the net", the Federal Office for Culture and OFCOM launched the competition "*Knights of Communication*" for the first time last year[107]. The award encourages young people up to 30 years of age to initiate projects that contribute to the combatting of a digital divide in society by bringing NICT closer to a broad public. The award is worth 50'000 CHF every year, including a special award for fostering "Girls and NICT", and is sponsored by the Federal Offices, private organisations and business.

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[99] CH21 (2001). *CH21-Impulses for Switzerland.* Zurich: CH21 Impulse Program Office.
Online : http://www.ch21.ch
[100] Swiss Federal Council (1998). *Op.cit.* p. 2.
[101] ISCG (2001). *Op.cit.* p. 30/31.
[102] Conseil fédéral (2001*). Message concernant la loi fédérale sur l'encouragement de l'utilisation des technologies de l'information et de la communication dans les écoles*. Berne: Chancellerie fédérale, p. 4.
Online: http://www.evd.admin.ch/dynamic/dm/DM_ECOLE_SUR_LE_NET/Botschaft_Eing_GS_f.pdf.
[103] DEA/DHA/FDF/DETEC (2001). *Public Private Partnership – Schulen im Netz (PPP-SiN).* Bern: Federal Department of Economic Affairs, p. 4. Online:
http://www.bbt.admin.ch/aktuell/medien/2001/d/rapportpppd.pdf
[104] The following companies support the project: Swisscom, CISCO, IBM, Apple, Postfinance and yellowworld (*Ibid.* p. 11).
[105] The law can be obtained at: http://www.admin.ch/ch/f/ff/2001/6182.pdf
[106] Geneva, Fribourg, Ticino, Uri, Zurich, St.Gallen (DEA/DHA/FDF/DETEC (2001). *Op.cit.* p. 20.).
[107] http://www.comknight.ch

As suggested by these two projects, access for all goes hand in hand with the second principle of the Information Society, empowerment of all. Although comparatively few public access points exist in Switzerland, the present strategy does not primarily provide access by means of a better infrastructure, but focuses on the improvement of human skills, which are necessary to make use of the new technologies.

Internet as an arena for political participation and communication

E-government figures as one of the key areas for action in the Information Society Project. Guided by the three principles information, communication and transaction, e-government encompasses a wide variety of projects looking at the Internet as an arena for political participation and communication[108]. At the core of e-government report are two projects co-ordinated by the Federal Chancellery (FCh): the *guichet virtuel* and e-voting[109].

In summer 2000, the FCh set up a working group composed of representatives of the federal government and the cantons to prepare the implementation of the *guichet virtuel*. In parallel with this, a team of experts was commissioned to produce a concept study. At the beginning of 2001, the Confederation reached an agreement with all the cantons and communes, which sets out a framework for joint implementation of a pilot scheme. This pilot project, financed by the Confederation, is currently under construction[110] and should start with a limited range of topics in the first half of the year.[111]. Moreover, it is planned to make access to the *guichet virtuel* available at post offices in order to reduce and not to widen the digital divide[112].

The idea of the *guichet virtuel* is to provide direct access to the public authorities of all three layers of the state. In contrast to existing web sites of the authorities, which mostly reflect institutional structures[113], the organisation of the *guichet virtuel* will be based on people's everyday concerns (e.g. marriage, death, passports, moving etc.). A so-structured site will direct users straight to the relevant authority. Furthermore, when users are referred to other sites, they will be able to keep track of which section within the administrations they have been taken to. At a later stage, a real tracking system will be incorporated in the project. Consequently, four principles guide the construction of the *guichet virtuel*: the principle of real-life situations, one portal for all three levels of government, content switching and transaction support[114]. The *guichet virtuel* thus not only offers information, but also communication (via e-mail, discussion forums) and, most importantly, transaction[115] (e.g. submitting tax returns). During the pilot phase, however, transactions are only possible as far as no legally recognised signatures are required. In all other cases, legal foundations first have to be prepared and a digital signature developed. The same applies to the cantonal level, where no steps towards a general legislation on the digital signature have been undertaken so far. Thus many e-government transactions and services are today hardly possible for purely legal reasons and Switzerland has to make up its delay in comparison with other advanced countries[116]. In fact, at the beginning of 2001 only three (out of 22) cantons already had a strategy with an important budget for e-government. Yet most cantons intended to develop or

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[108] About 60 projects planned or already started are listed in Annex 4 of the 3rd report on the Information society (ISCG (2001). *Op. cit.,* Annex 4, p. 73-84).

[109] Informations about the projects and their status of realisation are available at: http://e-gov.admin.ch.

[110] http://www.ch.ch

[111] ISCG (2001). *Op. cit.* p. 37.

[112] Federal Chancellery (2001). *The Federal Portal "Guichet virtuel" – a Project of the Confederation, the Cantons and the Communes.* Berne: Federal Chancellery, p. 5. Online: http://e-gov.admin.ch/de/index.php.

[113] See for example http://www.admin.ch, the official web site of the Confederation.

[114] ISCG (2001). *Op. cit.* p36.

[115] An important example, though not actually part of the *guichet virtuel,* is the e-census 2000 (http://e-census.ch), a European first in the area of collecting statistics.

[116] ISCG (2001). *Op. cit.* p. 45/46.

implement such a strategy in 2001[117]. As a consequence, progress in the field of the digital signature may be expected.

The second important project aiming at political participation via the Internet is *e-voting*. Based on a decree of June 2000[118], the FCh established a working group composed of representatives of the cantons and the Federal Statistical Office in summer 2000. So far, this group has organised three meetings to discuss political and technical aspects of e-voting. Additionally, it carried out a survey on e-voting among cantons in order to gather information about existing legal provisions, pilot projects and the interest in a collaboration with the Confederation. Even more than the *guichet virtuel*, e-voting has to be a nation-wide project including all cantons and communes, co-ordinated by the Confederation. Given the fact that communal, cantonal and federal votes are often held at the same time, the new form of participatory democracy can only show its effects if there is one solution compatible at all levels of government. With respect to pilot schemes, an agreement has been reached with three cantons (Geneva, Neuchâtel, Zurich). The project in the canton of Geneva is particularly developed because a legal basis as well as a central register of voters had already existed. Two tests were conducted on the occasion of the federal and cantonal votes on June, 10 and September, 23 2001. In March 2002 a third test will be held under conditions close to reality. In the event of success, Geneva will officially introduce e-voting later in 2002. As a next step, e-voting shall be made applicable for elections as soon as 2003[119]. At the federal level, an important prerequisite of e-voting has not existed until now: the harmonisation of the Swiss register of births, deaths and marriages, together with the construction of a federal electronic register of voters. Legal provisions for harmonisation, however, cannot be expected before 2004. In the meantime, the latest report[120] on the subject has to be approved by Parliament, a legal basis for pilot schemes realised and cantonal pilot phases evaluated. Moreover, the problem of the digital signature has to be solved[121].

To sum up, we can say that Switzerland considers the Internet an important means to enhance political participation and to establish a closer relationship between the population and the authorities[122]. The *guichet virtuel* and e-voting are complex and ambitious projects promoting political communication and participation. However, both initiatives are still in the phase of elaboration and have to face technical, legal and security problems.

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[117] Prognos (2001). *Op. cit.*, p. 21/22.
[118] http://e-gov.admin.ch/de/index.php
[119] Bundeskanzlei (2002a). *Vote électronique. Elektronische Ausübung politischer Rechte. Chancen, Risiken, Machbarkeit. Beilage 10 : Pilotprojekte.* Bern : Bundeskanzlei, p. 4/5.
    Online : http://e-gov.admin.ch/vote/vote_electronique_Beilage10.pdf. See also web site about e-voting in the canton of Geneva: http://www.linux-gull.ch/evote/index.html.
[120] Bundeskanzlei (2002). *Vote électronique. Elektronische Ausübung politischer Rechte. Chancen, Risiken, Machbarkeit.* Bern: Bundeskanzlei. Online: http://e-gov.admin.ch/vote/e-demo-dt-09.01.02.pdf.
[121] *Ibid.* p. 39.
[122] Muralt Müller, Hanna (2001). *E-Government als neue Herausforderung.* Bern: Bundeskanzlei.
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