



E-DEMOCRACY CENTER



**Analysis of the 26th September 2004 ballot as held in
four Geneva municipalities
(Anières, Carouge, Cologny and Meyrin)**

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1 Introduction

Since the start of the internet voting project, the Geneva State Chancellery has collaborated with the Geneva University E-Democracy Center on the legal and sociological aspects of online voting. This study is the latest product of this fruitful collaboration, launched by Mr Robert Hensler, State Chancellor.

Article 8a subparagraph 3 of the federal law on Political rights (LDP) mandates that the online voting experiment must be scientifically followed and observed, notably as far as the age, gender and study level of the online voters are concerned. Yet, the Geneva authorities have wished to go beyond these requirements.

The main question regarding the implementation of internet voting deals with its “neutrality”: how does internet voting affect the other voting channels and how does it impact the outcome of ballots? To answer this question, one must know the reasons why voters use internet voting. Are there political reasons? Does this choice depend on the voter’s infrastructure? Does it depend on his/her level of education or income? These questions could not be answered without an extensive study conducted on the whole electorate.

In a first study, we have examined the communal referendums organised in Carouge (April 2004) and Meyrin (June 2004). However, this study dealt only with the users of the remote voting channels: the online voting application and the postal voting. A broader analysis encompassing not only the so-called absentee voters, but also the voters casting their ballot at the polling station as well as the abstentionists.

Mission accomplished: this report provides an accurate analysis of the telephone survey that we have conducted on a representative sample of 1014 citizens, men and women living in the four Geneva municipalities that were offered the possibility to cast a ballot online during the cantonal and federal referendum of September the 26th 2004. These four municipalities are two villages Anières (1214 registered voters) and Cologny (2553 registered voters) and two towns¹, Carouge (9167 registered voters) and Meyrin (9203 registered voters). In all four municipalities, online voting had already been offered once before September 2004, in the framework of a municipal referendum.

¹ According to the Federal Office for Statistics, municipalities of more than 10'000 inhabitants are considered as towns.

In Geneva, the 26th September 2004 ballot had both federal and cantonal issues to be voted upon. There were four federal referendums: the simplified acquisition of the Swiss citizenship by foreign youths born in Switzerland, the acquisition of the Swiss citizenship by the third generation foreign residents, on the creation of mandatory maternity benefit and on a law proposal aimed at protecting the postal public service from privatisation. There were two cantonal referendums: the first challenged a law prohibiting the sale of alcoholic beverages at night in gas stations and the second challenged a change in the law on buildings renovation².

The Erasm Institute, based in Carouge, one of the four municipalities studied here, conducted the telephone survey. Thomas Christin and Alexander H. Trechsel prepared the questionnaire as well as the present report, in collaboration with the State Chancellery.

After this introduction, the hurried reader will find a summary of the study's main conclusions. The third chapter describes the study's methodology. The fourth chapter offers a detailed analysis of the turnout. The fifth chapter concentrates on the voting channel chosen by voters as well as the potential impact of the vote by internet on the turnout. The sixth chapter deals with the reasons beyond the voters' choice of a given voting channel rather than another. The seventh chapter analyses the impact of electronic vote on the result of the ballot. The eighth chapter presents the reasons given by the members of sample in support of their choice of a voting channel. Finally, in chapter nine, we shall have a look at the safety issue.

We wish to thank the team of the "Erasm" institute for their fast and effective work as well as their availability. We would like to express a special gratitude to Robert Wegener and Massimo Sardi for their invaluable expertise, and to Michel Chevallier, member of the eVoting project team at the Geneva State Chancellery, for his effective and competent accompanying of this research. Finally, we shall extend our thanks to Fernando Mendez, deputy director of the e-Democracy Center of the Geneva University, who proofread this study.

² You can find the details of these issues on the web at www.geneve.ch/votations/2004.html (in French).

2 Summary – For the hurried and curious reader

What to retain of this report? Two essential findings:

- The drivers of the use of internet voting are neither the age, nor the income, nor the level of education, nor the political affiliation, but variables which we baptised "data processing": confidence in communicating over the internet and computer knowledge. The latter doesn't mean that one has to be a computer expert to vote online, but simply that one has to feel confident with one's PC. In this study, indeed, the knowledge level is not evaluated in an objective way, but through a subjective auto-evaluation by the members of the sample.
- The three voting channels, polling station voting, postal voting and internet voting, are politically neutral. In other words, it is impossible to guess a voter's political choices on the basis of the voting channel he chooses.

On the basis of these two central observations, the use of internet voting appears to be a personal choice and an indicator of a way of life in which information technologies are a central theme. It is not at all a marker pen, which would a priori allow differentiating the individuals between users and non-users on the basis of social status.

This questions certain simple explanations, not to say simplistic, sometimes found in the specialised literature and the media. While we know for example that women vote less by internet than men, and that young people are more enticed by this voting channel, this study shows that these variables are not really of a big help to explain the choice to vote online.

3 Methodology

A sample of 1014 voters was reached by telephone³ in the days following the ballot of September 26th, 2004. The sample was established using the quota method. Among these voters, 149 lived in Anières (14.7%), 151 in Cologny (14.9%), 356 in Carouge (35.1%) and 358 in Meyrin (35.3%).

These figures indicate that we have given the small municipalities (Cologny and Anières) a larger weight in the sample than their real weight. This overbalance offers the triple advantage of reducing the selection bias, of increasing the precision of the results in these two municipalities and, if need be, to supply a sample large enough to analyse separately each municipality's results. Nevertheless, and only if expressly mentioned, we shall analyse our results based on balanced data, representative of the whole electorate of the four municipalities.

The error margin for a 50% value with a threshold of 95% likelihood is +/-3.1% on the total (n=1000). In other words, when 50% of the sample chooses the same answer, the "true" percentage is at least 46.9% and at most 53.1%. When the value falls to 30% (or conversely rises to 70%), the error margin falls to +/-2.8%.

When we do not consolidate the results of four municipalities, the error margin is +/-8% in Cologny, +/-7.5% in Anières and +/-5.2% in Carouge and Meyrin, for a 50% value with a threshold of 95 % likelihood.

³ It is a CATI-type (Computer Assisted Telephone Interview) inquiry.

4 Turnout and voting place

4.1 Turnout according to age and gender

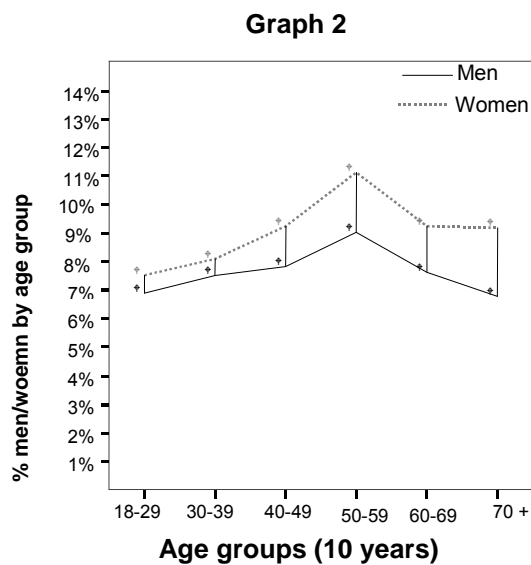
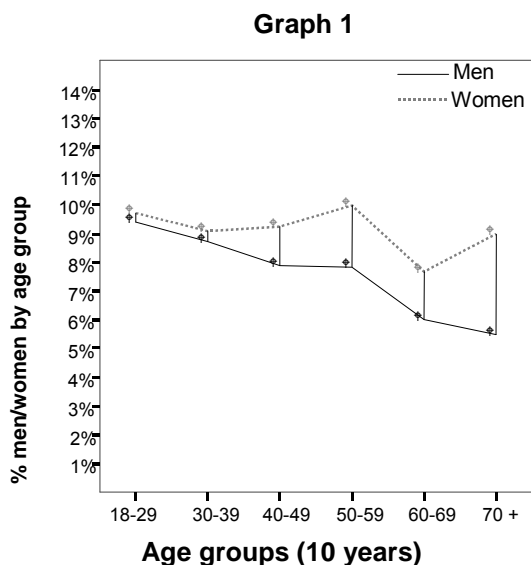
At the cantonal level, the turnout in the September 26th, 2004 vote was 57.1% of the electorate. For the four municipalities studied here, turnout exceeded the canton average in the small municipalities of Cologny (61.8%) and Anières (60.9%), but was below the average in the larger ones, Carouge (56.5%) and Meyrin (54.2%)⁴. In absolute figures, 12'491 of the 22'137 registered voters of these four municipalities took part in this ballot, that is 56.4%⁵.

It is impossible for us to highlight the impact of the vote by internet on turnout. To do so, we should compare the turnout in every municipality with the canton average in a temporal perspective, which is still lacking.

Graphs 1 and 2 present the distribution of the registered voters according to their gender and age for the four municipalities (Graph 1) and of the voters who effectively cast a vote on September 26th, 2004 (Graph 2).

Graph 1: Distribution of the registered voters according to gender and age in the four municipalities (n=22'137)

Graph 2: Distribution of the effective voters according to gender and age in the four municipalities (n=12'487)



⁴ Precisely, the turnout at the cantonal level, without the four municipalities that were able to vote by internet reached 57.2%.

⁵ By municipality, 739 voters cast a vote out of 1214 registered voters in Anières, 1578 out of 2553 in Cologny, 5183 out of 9167 in Carouge and 4991 out of 9203 in Meyrin.

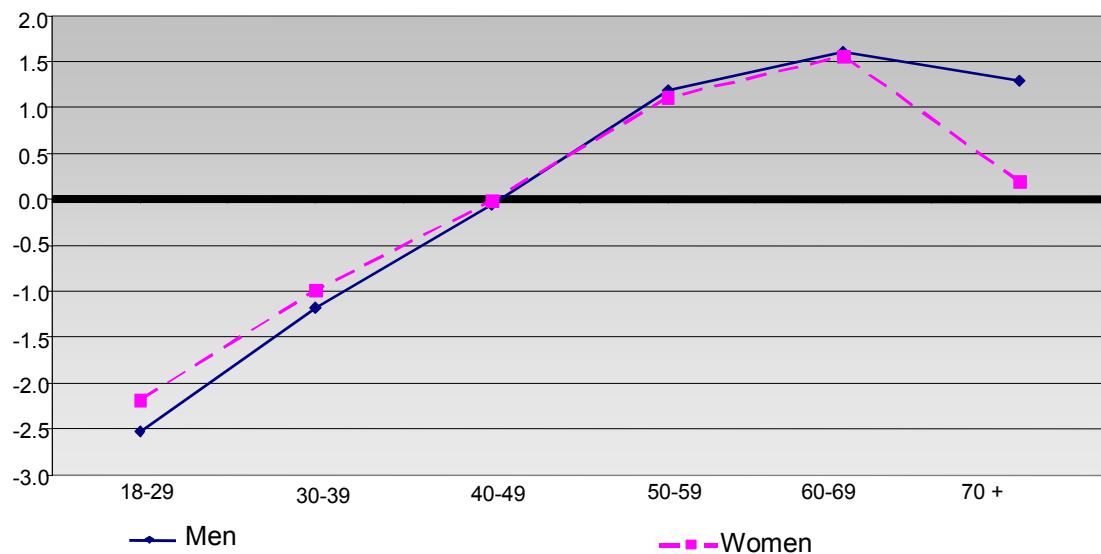
4.1.1 Different profiles

Graphs 1 and 2 show that the distribution of voters according to age and gender differs from that of the global electorate. Turnout tends to increase with age: voters of less than 40 years of age scarcely participate in ballots, unlike their elders, especially those in their fifties. This tendency is similar in both genders, the reason why the men and women' curves do not overlap lies exclusively in the fact that there are more women in the electorate.

Graph 3 consolidates in a single table the information of *Graphs 1 and 2*. By normalising on the basis line 0 the "weight" of every age group for each gender, it allows to compare the distribution of voters according to gender and age to that of the whole electorate. Values above the 0 line indicate an over-representation of a given age group; values under the 0 mark indicate its under-representation among the September the 26th, 2004 voters.

Men and women aged 50 to 69 had a stronger participation in this ballot; therefore their weight within the voters is superior to their weight in the electorate. On the contrary, younger people, especially those in the 18-29 bracket, are under-represented among voters. There is no difference between men and women under the age of 70 years. After this threshold, women' turnout is significantly weaker than that of men.

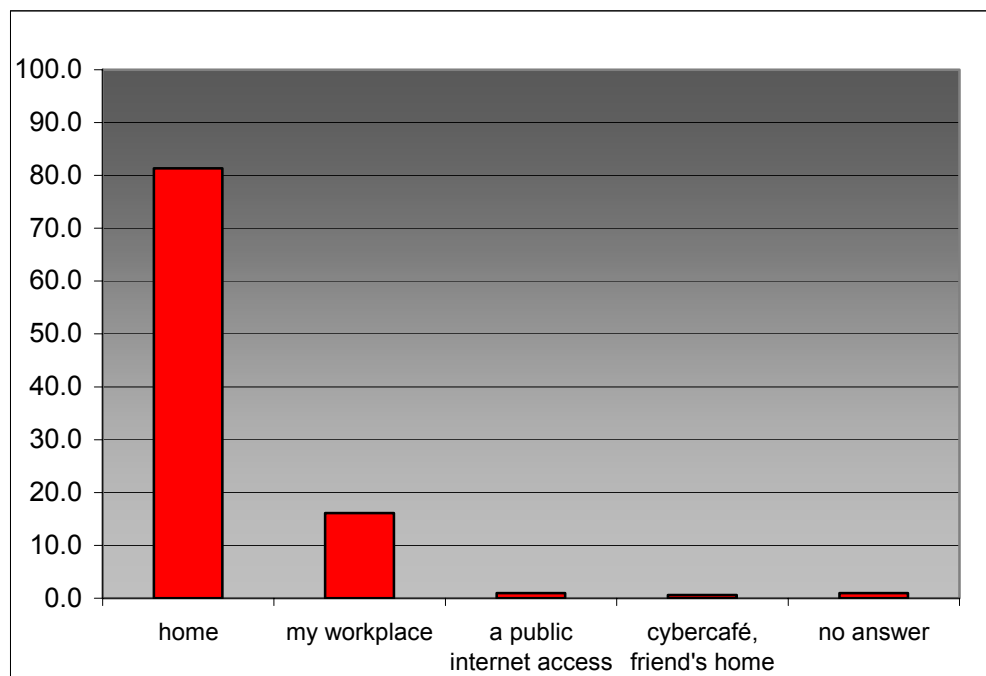
Graph 3: Over- or under-representation of voters according to their age and gender compared to the whole electorate (n=22'137).



4.2 Where are people when they vote online?

Before seeing whether internet voting increases turnout, we would like to present first the data about the place where eVotes are cast from (*Graph 4*).

Graph 4: Where from are eVote cast? (n=122)



The majority of internet votes were cast at home (81.3%). Only 16.1% of the voters filled their electronic ballot paper in their workplace. Only a negligible share of voters used other places such as public access PC, cyber cafés, etc.

A finer analysis shows that 77.7% of the voters who used internet and who have internet access at home and on their workplace voted online from home.

4.2.1 A privacy act

The internet vote, as well as postal vote, is cast from home, even if the voter has multiple internet accesses. The electronic vote is marked with the seal of confidentiality and pertains to the private sphere. These results suggest also that having an internet connection home is a crucial element of online voting, since citizens are not prone to vote in a public context. We shall return on these questions to the point 6.3.3.

5 Where do internet vote users come from?

5.1 A transfer of postal ballot towards electronic ballot

The distribution of votes by voting channel during the September 2004 ballot matches the distribution observed in the municipalities of Carouge and Meyrin on the occasion of the study conducted during the municipal ballots of Spring 2004⁶.

5.1.1 Postal voting is still Nr 1

Postal voting remains the favorite voting channel, with more than 70% of all cast ballots. Internet voting comes second, with 22 % of the votes. Polling station voting comes third, with less than 6% of the votes. The data stemming from the telephone survey and the real values are very similar: this indicates that the telephone inquiry yield very precise results and that the sample is very representative.

Table 1: Vote distribution according to the voting channel

Voting channel	Phone poll		Actual turnout in %
	%	N	
By post	72.8	416	72.5
By internet	21.6	123	21.8
Polling station	5.7	32	5.7
Total	100	571	100.0

Source: www.ge.ch/chancellerie/conseil/2001-2005/informations/chan040926.html and telephone inquiry.

5.1.2 Internet voting has conquered its public

As far as internet voting is concerned, the extremes of participation are to be found in Anières and Meyrin, where respectively 26% and 20% of the registered voters cast their ballot online. These figures emphasise that the tendency to vote online is very similar both among municipalities and between ballots. The values observed on September the 26th, 2004, converge indeed with those measured during the previous eEnabled ballots. In these, however, the issues at stake were exclusively municipal.

The online turnout stabilised around 20-25%. This interval represents the potential of internet voting in the current pilot phase. In this respect, let us remember that the initial number of postal votes was also a good deal smaller than what it is today. It

⁶ See www.geneve.ch/evoting/english/doc/rapports/200409_rapport_carouge_meyrin.pdf

experienced a slow progression over seven years (1995-2001), rising from 70% in 1995 (generalisation of postal voting) to its current level of some 95% in 2001.

Table 2 crosses their usual voting channel as indicated by voters with the voting channel used during the ballot of September 2004. The main data revealed by this table is the continuity in the use of online voting. Nine out of ten persons who cast a ballot online in the past did so again on September the 26th, 2004. Past the "first time" effect, or their experience with of the electronic voting having been unsatisfactory, only the remaining 10% returns to a traditional voting channel.

Table 2: Usual voting channels and actual voting channels

Voting channel on September the 26, 2004	Usual voting channel			
	Polling station	Postal voting	Internet voting	Total (%)
Polling station	76.0%	2.0%	5.3%	5.5%
Postal voting	12.0%	81.2%	5.3%	73%
Internet voting	12.0%	16.8%	89.5%	21.5%
Total (n)	100.0% (25)	100.0% (501)	100.0% (38)	100.0% (564)

The coherence of the data for online turnout over time is not accidental; it expresses the fact that this new voting system has met its public.

5.1.3 Internet voting infringes on postal voting

The voters who usually cast their ballot by post provide the bulk of newcomers in electronic voting: *Table 2* shows that some 17% of the regular postal voters chose to vote by internet. The first effect of internet vote is thus to decrease the share of postal votes. While usually some 95% of voters used postal voting, on September the 26th less than 75% of voters did so. This transfer has been noticeable in all online ballots organised in Geneva.

The limited number of voters taken into account by this study - 564 persons - and especially the limited number of respondents having indicated online voting as their usual voting channel – 38 voters – invites us however not to over-interpret these results. Long-term data in a series of ballots will be necessary to confirm these findings.

The difference in the number and size of the municipalities that could vote online in the course of the eight eEnabled ballots organised in Geneva between 2003 and 2005, as well as the difference in the level of the issues at stake (municipal, cantonal and/or

federal) makes it impossible to perform this analysis at the moment. Besides, the very first ballots (Anières and Cologny in 2003) benefited from an indisputable effect of novelty⁷.

5.1.4 Occasional voters appreciate online voting

Generally speaking, internet voting favoured occasional voters. *Table 3* shows that they resorted to it more than the average.

Five out of nine persons who describe themselves as regular or quasi-regular abstainer chose internet to cast their vote - that is 55.5%, compared to an average of 21.7% of online cast votes. Similarly, the online turnout of citizens who declare voting only occasionally - 30.8% - is higher than the global value of internet turnout. The same is true for the voters who declare voting often: their rate of online turnout reached 26.2%.

Yet, the voters who declare to participate in every ballot cast fewer ballots on the internet than the average: 18.7%, against 21.7%.

However, the limited number of registered voters who described themselves as occasional voters does not allow us to draw generalised conclusions about the mobilising potential of online voting among this category of citizens.

Table 3: Usual ballot attendance and voting channel on September the 26th

<i>Voting channel on September the 26th</i>	Usual ballot attendance					
	always	often	Some-times	rarely	never	Total (%)
<i>Polling station</i>	4.5%	4.9%	15.4%	16.7%	33.3%	5.7%
<i>Postal voting</i>	76.8%	68.9%	53.8%	0.0%	66.7%	72.6%
<i>Internet voting</i>	18.7%	26.2%	30.8%	83.3%	0.0%	21.7%
<i>Total %</i>	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
<i>(n)</i>	(396)	(122)	(39)	(6)	(3)	(566)

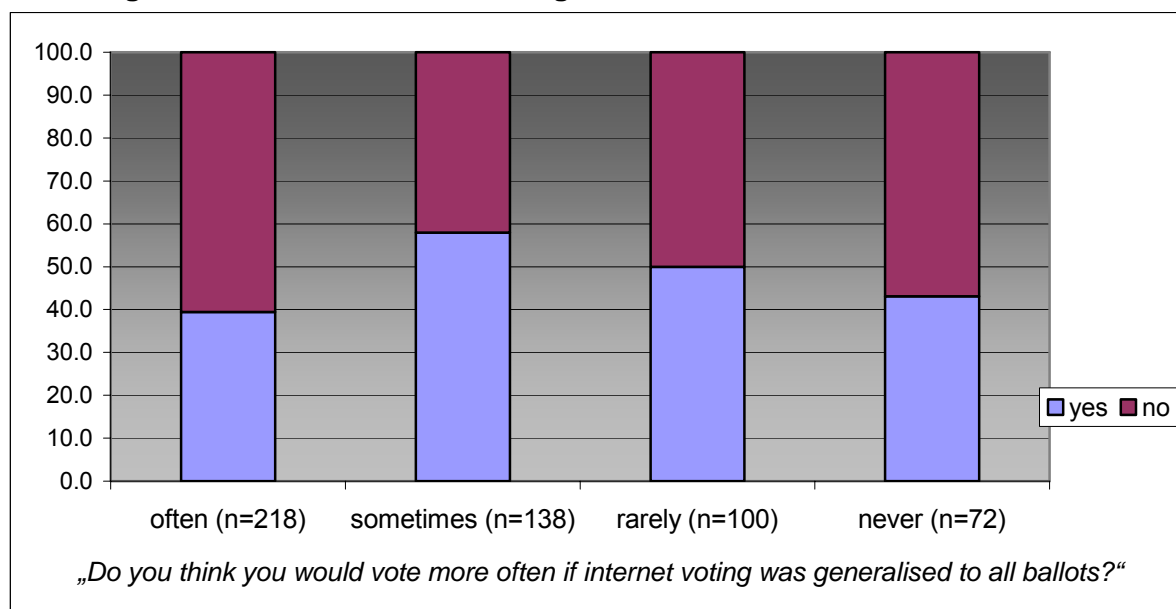
The tendency indicated by table 3 is however strengthened by the analysis of the

⁷ For the municipal ballots organised to-date, turnout has been as follows: Anières, January 2003, 43.6% of online cast votes; Cologny, November 2003, 28.9%; Carouge, April 2004, 25.7%; Meyrin, June 2004, 22%, Vandoeuvres, October, 2004, 32%.

During the federal and cantonal ballot of November, 2004, where 8 municipalities could vote online (Anières, Carouge, Collonge-Bellerive, Cologny, Meyrin, Onex, Vandoeuvres and Versoix), 22,4% of all cast votes came through the internet. The cantonal ballot of April 2005, where 14 municipalities could vote online (the same 8 plus Bernex, Chêne-Bourg, Grand-Saconnex, Lancy, Thônex, Vernier), 20,35% of all votes were cast on the internet.

answers given by the members of the sample to the questions regarding their inclination to participate more in ballots after the generalisation of internet voting. The mobilising potential of internet voting is important among those who vote from time to time and, in a lesser measure, among those who vote only rarely (*Graph 5*)⁸.

Graph 5: Usual ballot attendance and subjective estimation of one's participation after the generalisation of internet voting



The determining factors of the regular voters' and regular abstainers' stance probably does not lay in the available voting systems. The potential for turnout increase through new voting channels has to be looked for among occasional voters.

This observation must not hide the fact that some 40% of regular voters and regular abstainers declare they are seduced by internet voting.

⁸ The question of the potential of increase of the individual participation was not asked to the persons who said the voted "always".

5.2 Is online voting desired for other kinds of ballots?

We asked the citizens of the four municipalities which types of ballots would they intend to use internet voting for, provided it was generalised. *Table 4* shows their answers, split according to their attendance or not and their voting channel on September the 26th. The tendencies are clear:

- More than 90% of the voters who cast a ballot online on September the 26th, 2004, want to use internet voting for other types of ballots. This confirms the system's positive valuation by the citizens who already used it;
- Some two thirds of abstainers and polling station voters declare they would vote online for all referendums and elections;
- Six postal vote users out of ten could switch to internet voting. We already saw that this group supplies the largest share of online voting users.

These answers do not mean that two thirds of polling station voters or postal voters are necessarily bound to use internet voting if it were generalized; yet they indicate that there is a strong growth potential for electronic voting among "traditional" voters.

Table 4: % of citizens who declare they would use internet voting after it would have been generalised, split according to their participation or not on September the 26th, 2004, and the voting channel they used on that occasion

<i>If internet voting was generalised, would you use it for...</i>	No vote	Polling station voting	Postal voting	Internet voting	n
<i>...Municipal referendums</i>	67%	65%	60%	97%	959
<i>...Cantonal referendums</i>	69%	69%	61%	98%	962
<i>...Federal referendums</i>	68%	69%	60%	97%	955
<i>...Municipal elections</i>	65%	65%	60%	95%	959
<i>...Cantonal elections</i>	68%	69%	59%	96%	956
<i>...Federal elections</i>	67%	69%	60%	94%	956

6 The determining factors in internet voting

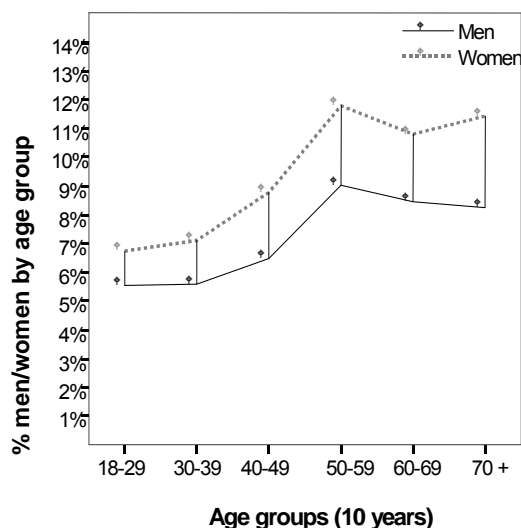
6.1 Socio-demographic factors

To seize the implications of the introduction of internet voting, one has to compare the socio-demographic profile of the users of both remote voting systems, postal voting and internet voting⁹.

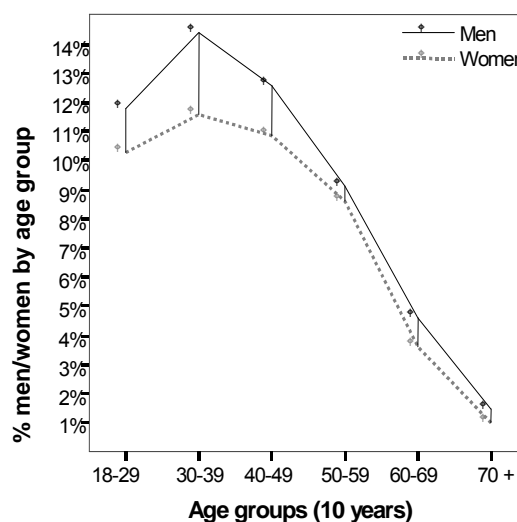
6.1.1 Age and gender of remote voting users

Graphs 6 and 7 present the distribution of the users of the remote voting channels according to their age and gender. Age – and, in a lesser extent, gender - are generally considered as key factors in the digital divide issue.

Graph 6: Distribution of voters using postal voting or polling station voting according to their age and gender (n=9'764)



Graph 7: Distribution of voters using internet voting according to their age and gender (n=2'723)



Two tendencies are clear:

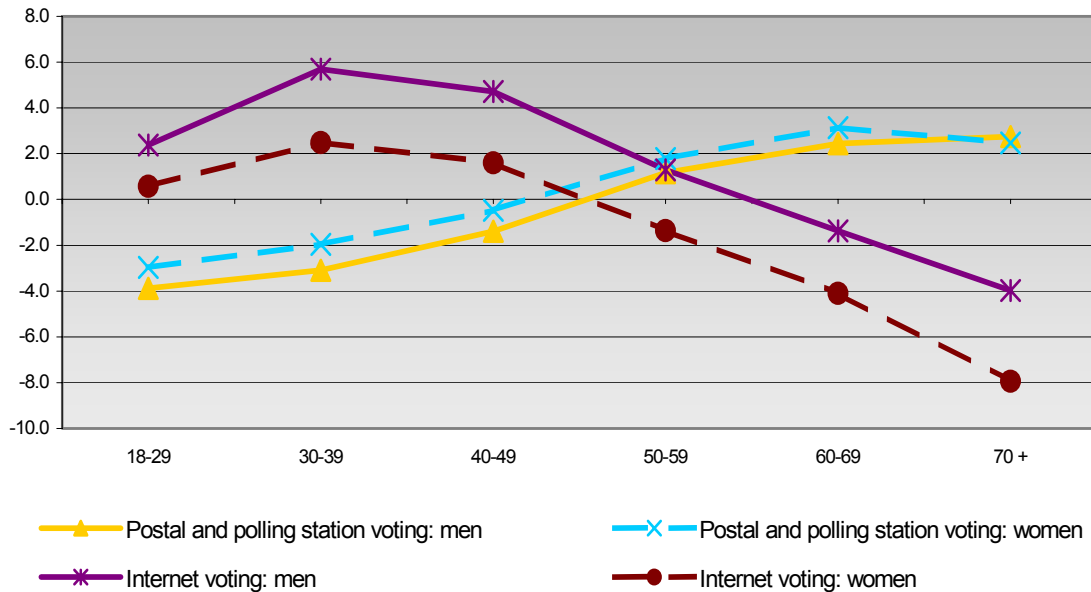
- Postal voting is appreciated by voters over 50 years of age, while internet voting is preferred by younger voters.
- Women tendentially prefer postal voting; men prefer online voting. These results must nevertheless be seen in connection with the weight of every age/gender group within the electorate.

Graph 8 presents the tendencies as for the use of the three voting channels according to age and gender. For women, as for men, internet voting use decreases with age. On the contrary, the use of the “traditional” channels (polling station voting and postal

⁹ The voters' profile according to their gender and age has been presented in section 3.

voting) increases with age: voter over 50 years are overrepresented in this group. Finally, while the pattern for men and women in the use of traditional voting channels is similar, men are overrepresented among internet voting users. The difference between genders is however weaker among the younger generation. These results confirm the analyses made during previous ballots.

Graph 8: Over- or under representation of internet voting users and “traditional” voters according to their age and gender, n=22’137



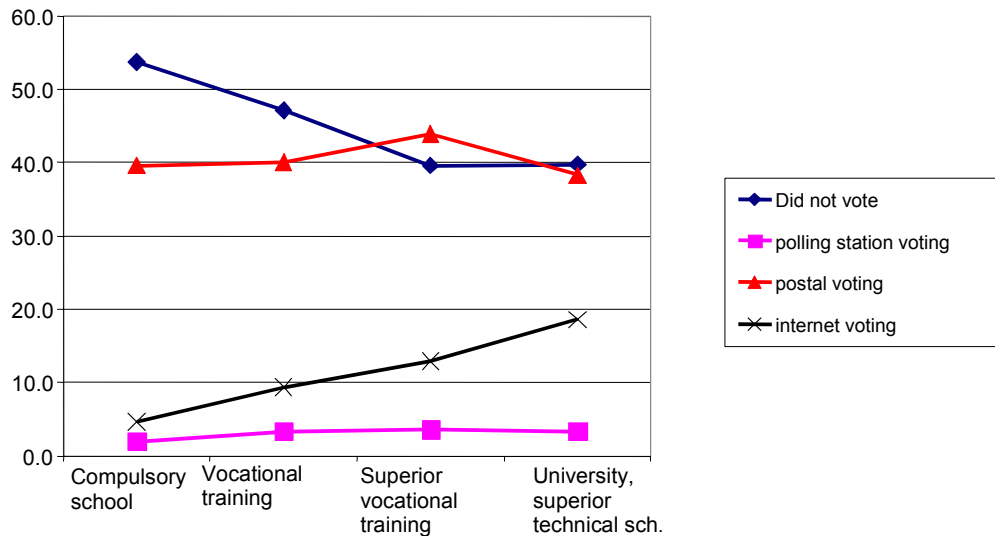
We have underlined the effects of age and gender. We will now concentrate on three other types of factors: the socio-demographic dimension, the political factors and the access to computers.

6.1.2 Vote and level of education

Graph 9 underlines three main facts regarding the impact of the level of education on the participation in the September 26th ballot and on the use of internet voting:

- Independently from the voting channel, participation in this ballot is negatively correlated to the level of education. The lower it is, the less one votes. This phenomenon is known to specialists in political sciences and does not surprise us.
- The use of internet vote is positively correlated to the level of education. Voters who have a low level of education are less inclined to vote by internet. Citizens who went to University, superior technical institutes or similar were more prone to use internet voting.
- The level of education does not affect postal voting nor polling station voting.

Graph 9: Over- or under-representation of voters according to the voting channel and their level of education (n=22'137)



6.1.3 Vote and income

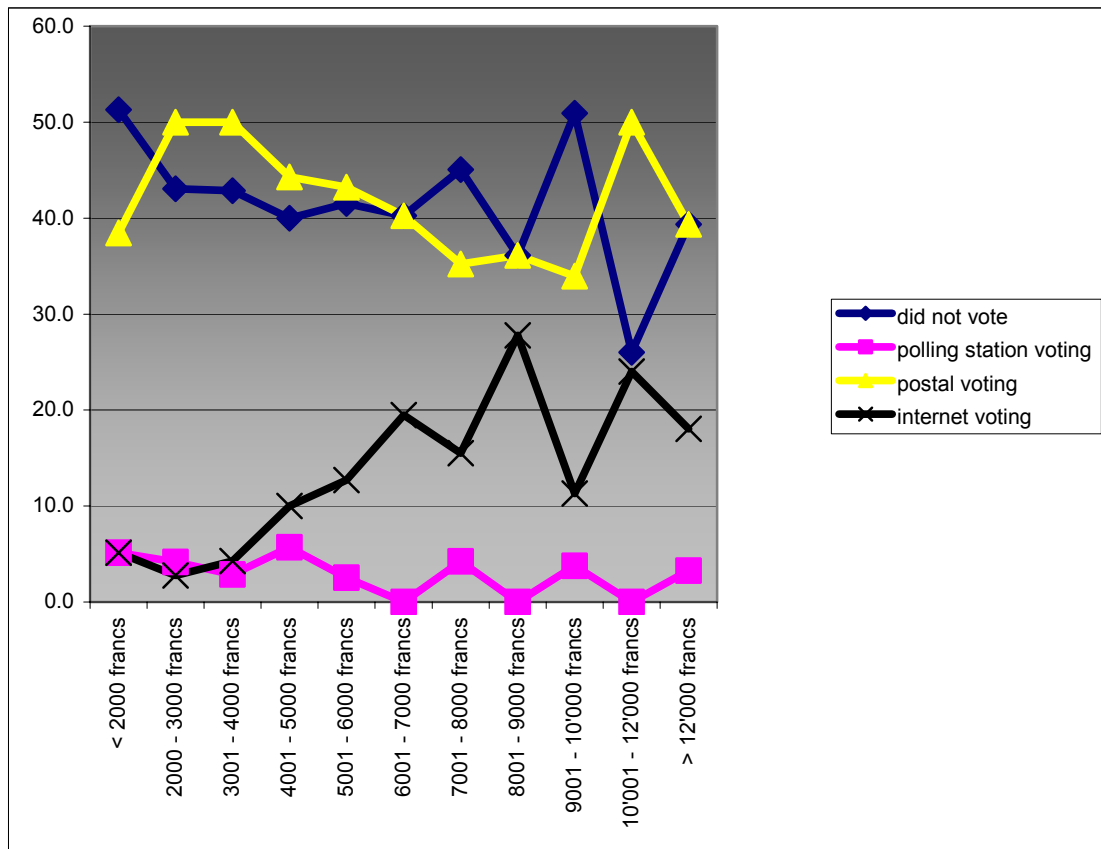
718 out of the 1014 members of our sample answered the question concerning their household's income. The specific sample for this question is thus limited, which decreases the precision of the results.

Graph 10 shows that the impact of income on the participation in the ballot is similar to that of the level of education:

- Participation in the ballot is positively correlated to the income level. The curve of abstention decreases as incomes rise, although the relationship is not linear.
- The use of online vote grows with incomes, but here too there is no linear relationship. Only 5% to 10% of sample members stemming from households whose gross monthly income does not exceed 5'000 francs a month voted online, while 20% of the voters living in households whose gross income is superior to 8'000 francs a month used this channel to cast their ballot.
- There are no clear tendencies as for the relation between income and use of postal voting or polling station voting.

The income level considered is the consolidated income of the whole household, a member of which is included in the sample. It is not possible to conclude that the richer one is, the more he or she will vote online: to do so, it would be necessary to balance the income level by the number of persons, or by the number of income-earning persons, within the household. This balance is not possible within the framework of this inquiry.

Graph 10: Relationship between income, ballot participation and voting channel (n=718)¹⁰



6.1.4 Multivariate analysis

There is something arbitrary about isolating a variable, such as the level of education or the income level in order to correlate with the electoral behaviour of the sample. Indeed, our actions are never determined by a unique factor, but on the contrary by a set of factors. The bivariate analysis presented above – whether at an aggregated level (age and gender) or at an individual level (study level and household gross income) – showed that men vote more often by internet than women, that voters with lower incomes use less online voting, that young people use it more and that a higher level of education increases the probability of voting by internet. However interesting they may be, these results say nothing of the importance of each of these factors in explaining

¹⁰ According to the official statistics, in 2002, the median salary in Geneva was 6060 francs a month. 3% of the working population earned less than 3000 francs a month. 58% of the working population earned between 4000 and 7000 francs a month and 2/3 of the working population earned between 4000 and 8000 francs a month (c.f. http://www.geneve.ch/statistique/statistiques/domaines/domaine.asp?domaine=trav_rem&so_usdomaine=salaires&vue=aperçu).

why one votes online. The quantitative methods offer us a tool to investigate this, namely the multifactor models.

To take into account the interaction of the various variables on the choices made by the members of the sample, we performed a multivariate analysis, to show the relative impact of the four variables previously studied on the choice to vote by internet: age, study level and household gross income, for which we have ordinal scales, and gender, which is a dichotomous variable.

The dependent variable, that is the variable to be explained, opposes those who voted by internet to those who used one of both traditional participation channels, namely postal voting or polling station voting.

For methodological reasons, it is not possible to quantify the breadth of the effect of every variable based on the coefficients (B) of a logistic regression¹¹. Nevertheless, the direction of the coefficient (positive or negative) indicates the direction of the relationship (a positive coefficient indicates a positive correlation). The crucial element is to know whether the effect of the independent variables is statistically significant at the 5% threshold¹².

Table 5: Multivariate model of the impact of socio-economic and demographic variables on the choice to vote online

Independent variables	B	s.e.	sig.
Age (by 10 years groups)	-.286	.085	.001
Gender	.120	.248	.629
Level of education	.152	.136	.263
Household gross monthly income	.134	.045	.003
Constant	-.1843	.661	.005

Pseudo R² (Nagelkerke): .104 ; n=411 ; in bold = error probability ≤ 5%

Table 5 shows the non-standardised coefficients of the four independent variables in this model. Only the variables for age and income had values superior to the signification threshold. They contribute to the explanation of the preference of internet voting to the other voting channels. The relation between these variables and the

¹¹ This quantification depends of the breadth of the independent variable.

¹² If the variable is significant at the 5% treshold, we can deduce with less than 5% of error risk that the independent variable (e.g. the gross income) has an impact on the dependent variable (the voting channel).

choice of internet voting takes two different directions:

- The older one is, the less one will use internet voting;
- The higher the income, the more one is inclined to use internet voting.

The voters' gender and level of education does not play a significant role, when matched with age and income.

Does this model cover all responses to the question "Why does one use internet voting?" In other words what is the model's global value? This value is expressed by Nagelkerke's pseudo R^2 . The higher it is, the better the model is at explaining the voters' behaviour.

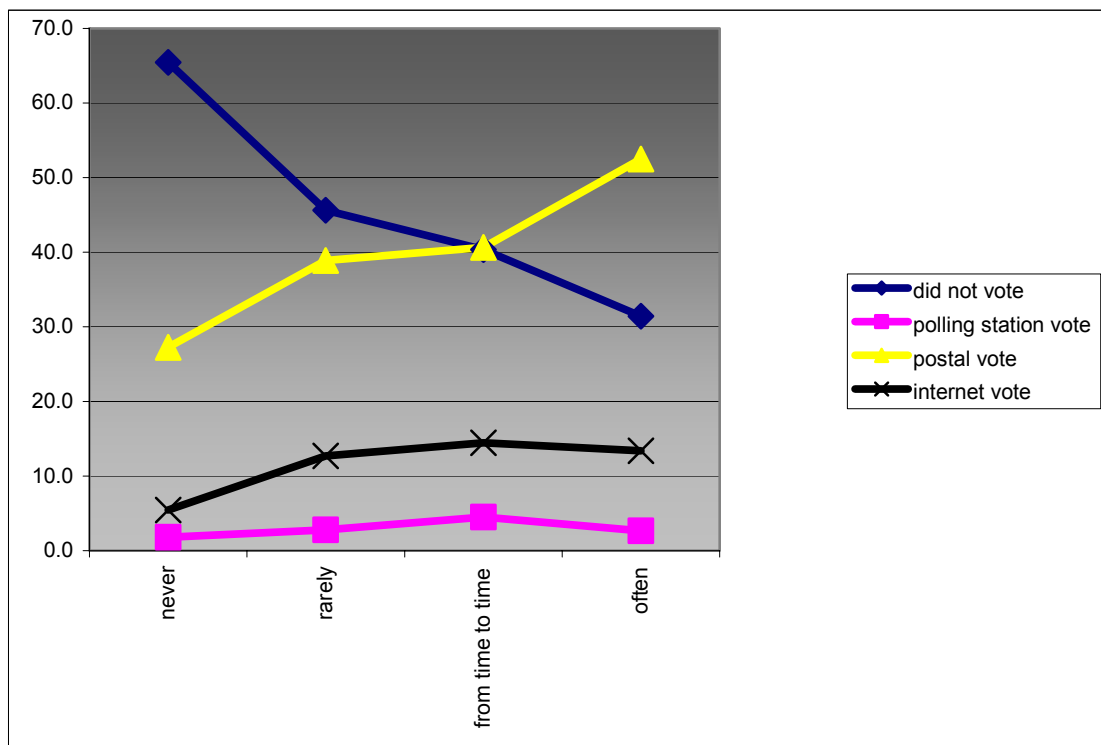
Here the pseudo R^2 is globally weak, which indicates that the explanatory power of the social-demographic variables on the choice of ballot is weak. We have to look at other leads in order to explain why people vote online.

6.2 Political factors

We know from political science research that being politically interested is one of the strongest motivations to participate politically. The more one is politically interested, the more active one is. Political interest generally translates into a need to interact, to discuss with other citizens, with one's family or with one's colleagues.

Graph 11 confirms this relationship. The proportion of abstention declines proportionally to the degree of political interest, measured by the frequency of political discussions. This interest does not have a strong influence on the choice of voting mode. The degree of a person's political involvement is positively correlated to their ballot participation, but has little influence on the voting mode.

Graph 11: Frequency of political discussions and voting mode (n=1'009)



6.2.1 Auto-positioning on a left-right scale

Auto-positioning on a left-right scale is a classic measure of any electoral analysis¹³. We included it in the questionnaire in order to see if the choice of voting channel was structurally related to a given political tendency.

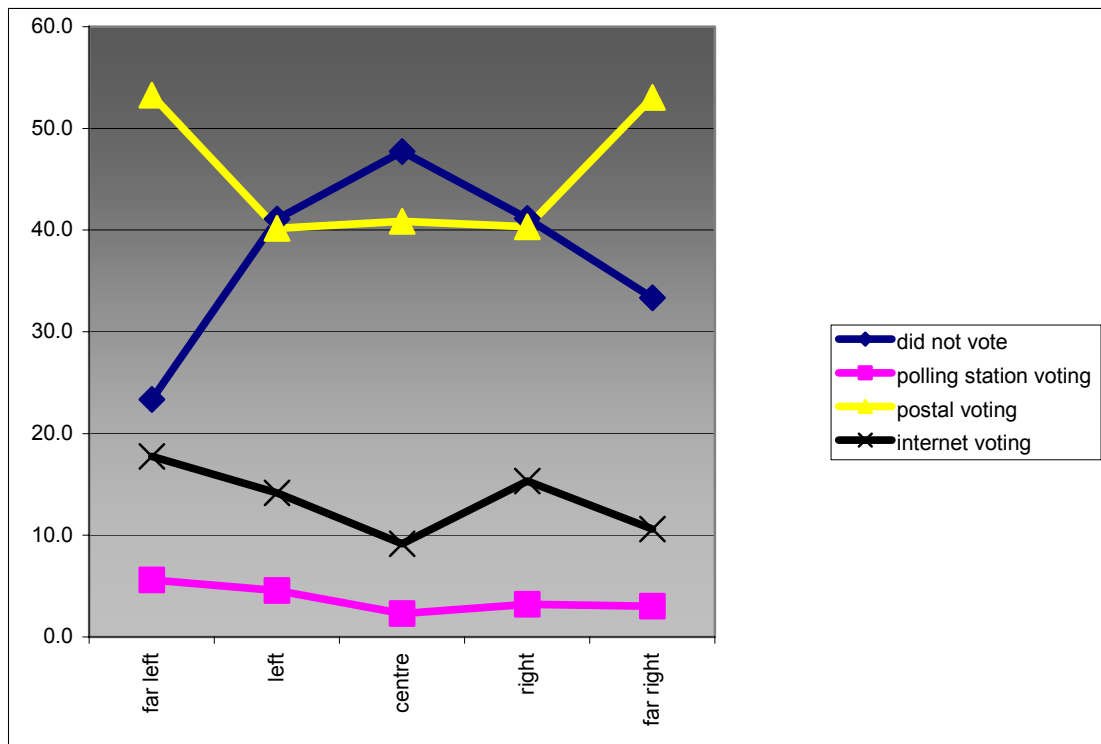
¹³ Political auto-positioning consists of asking the participants of the study to situate themselves on a scale from 0 to 10, where 0 corresponds to the extreme right, 5 centre and 10 extreme left. Here the answers were regrouped into five categories.

Graph 12 shows that the proportion of internet voters stays relatively stable throughout the political spectrum, with a slight bias to the left. In other words the proportion of internet voters is similar to the entire spectrum of political sensibilities.

The auto-positioning on the left-right scale presents nonetheless some interesting results. The voters who identify themselves with either of the extremes voted more than the average in this September 26th vote. And they did it by correspondence. The issues in this vote polarised the electorate.

This said, internet voting did not exert a significant polarisation. This is the first indication of the politically neutral nature of this channel of vote. It goes without saying that this has to be verified more precisely with the help of the multivariate models (see below).

Graph 12: Auto-positioning on the left-right scale and voting channel



6.2.2 The political affiliation

The political affiliation is another way of party identification. Although our global political analyses does not show any significant relation between political affiliation and political participation, whether we look at just voters or add up the abstainer to the studied group, the method of political affiliation shows that internet voting was used more by the Green Party (environmentalists) than by the sympathisers of other groups.

On average 15.4% of online voters identified themselves with one of the political parties represented in Geneva's State Parliament (Grand Conseil). For the Green Party this proportion is 20%. For the two far right parties, the UDC and the Swiss Patriots, the value is 7.3%.

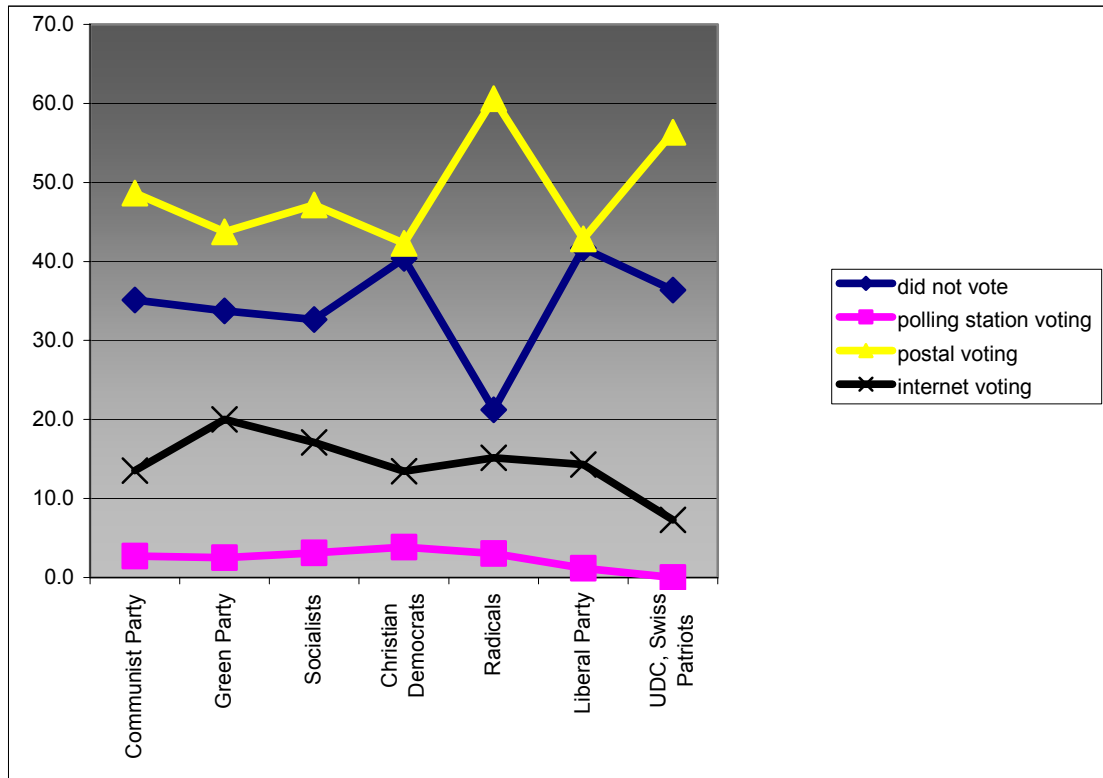
Although this is not the direct subject of our report, we nonetheless note a peculiarity of *Graph 13*. The sympathisers of the Radical Party (center right) mobilised themselves in force. The average rate of abstention observed in this analysis is 34.8%, that is 10% less than the real abstention rate¹⁴. But the Radicals had only 21.2% who chose not to express themselves. As shown by *Diagram 13*, the Radical Party's "surplus" chose to vote by correspondence and not online nor by ballot.

Three intermediate conclusions can be drawn:

- Internet voting is used by citizens of all political horizons without exception;
- Proportionally it was those in the Green Party who used internet voting the most. Inversely the UDC and the Swiss Patriots used it the least but without ignoring it;
- These two cases aside, the proportion of online voters among sympathisers of the other political parties is practically identical.

¹⁴ This is probably due to missing data concerning the political affiliation. The percent of the electorate who indicates a political affiliation is never 100%.

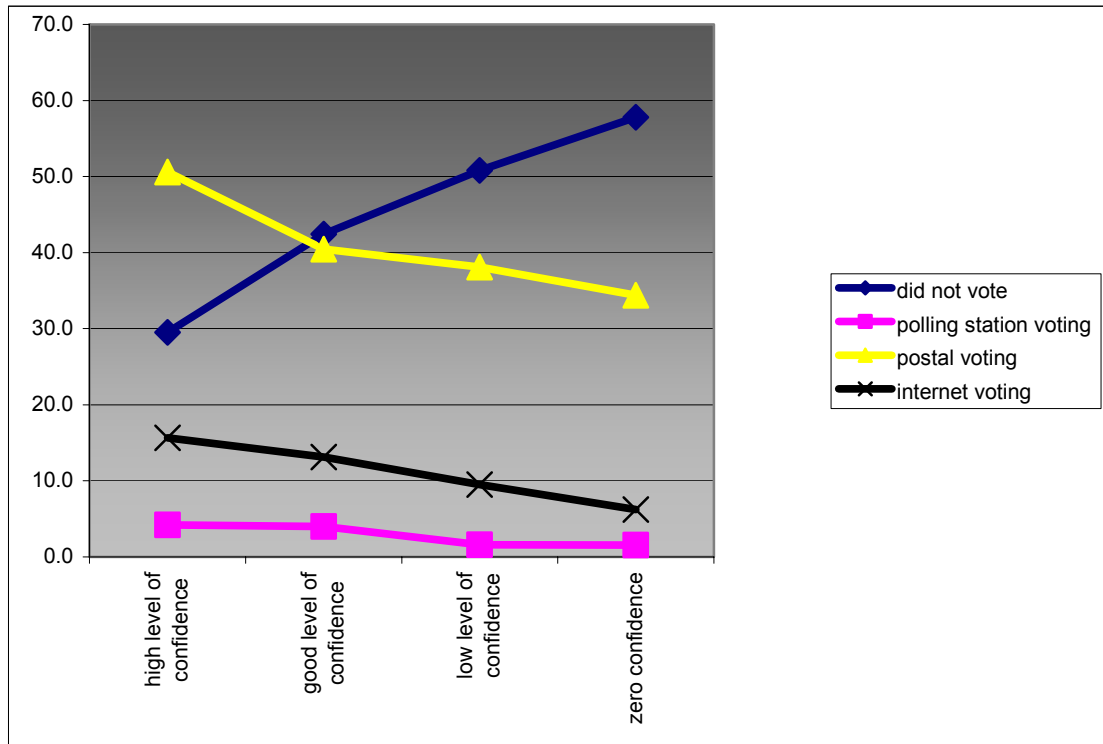
Graph 13: political affiliation and voting channel



6.2.3 Trust in institutions and the vote

Many social-science specialists have shown that trust in political institutions is related to political participation. We were also able to verify this. We questioned our group about general trust in institutions such as direct democracy or federalism, trust in Swiss politicians and confidence in public authorities such as the Geneva State executive and the public administration. *Graph 14* confirms the direct relationship between confidence and participation.

Graph 14: Trust in institutions and voting channel

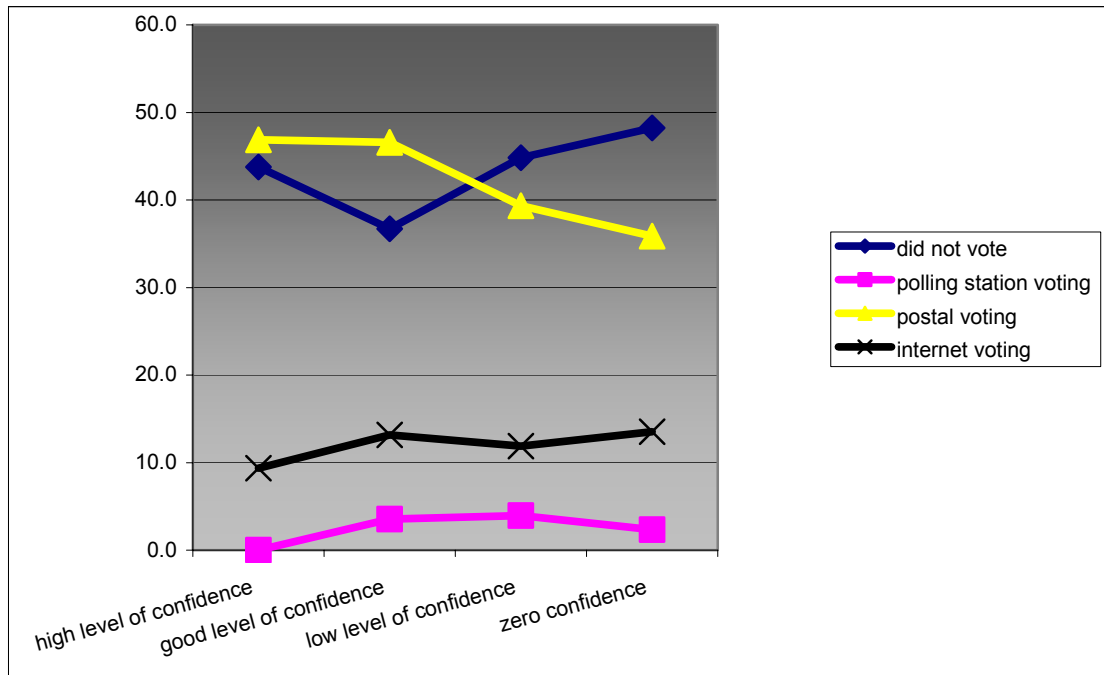


Additionally the graph shows that the attitude towards the three voting methods is similar whatever the level of trust in the institutions¹⁵. This again underlines the neutrality of internet voting and of the other two ballot methods.

Our data does not show any significant tendency between the trust given to politicians and the voting channel (*Graph 15*).

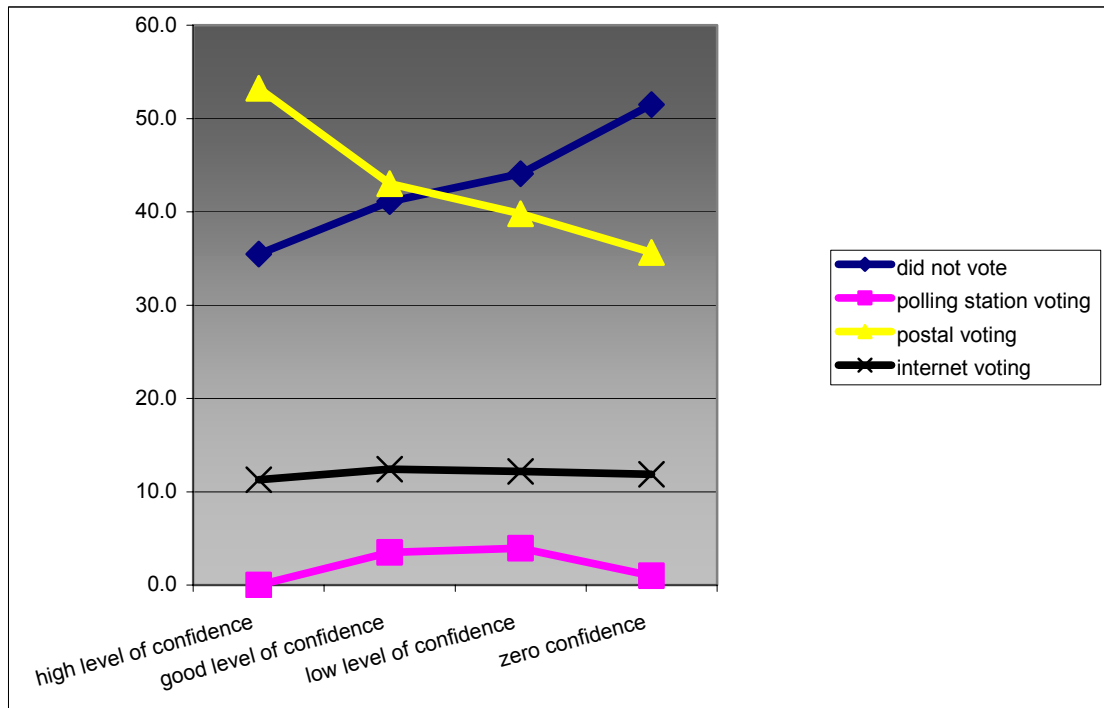
¹⁵ It is nonetheless interesting to note that, once again, those who declared a high level of confidence voted by correspondence.

Graph 15: Confidence in politicians and voting channel



The surprise is that the proportion of online voters is independent of trust in authorities. It is the authorities and the administration who created and maintain internet voting. So when we could have anticipated a positive relation between trust in the authorities and administration and internet voting, there is none (*Diagram 16*).

Graph 16: Trust in public authorities and voting channel



The conclusion offered by these results is that of the neutrality of the voting method in respect to the confidence delegated to the system (administration, voting system or authorities) in general. For the voters these three channels are institutionally equal.

6.2.4 Multivariate analysis of political factors

After having analysed variable by variable the relation between confidence, participation and voting method, we proceed to a multivariate analysis. As in the previous analysis (c.f. 6.1.4), the dependant variable, that is the variable that we have to explain, opposes those people who voted online to those who used postal voting or ballot vote.

Our model includes the following variables: the auto-positioning on a left – right scale, the frequency of political discussions and the three confidence variables explained above¹⁶. In addition we've estimated the neighbouring models in order to verify the solidity of our coefficients. None of these models changed neither the direction nor the force of the coefficients found in our final model (*Table 6*)¹⁷.

Table 6: Multivariate model of the influence of political variables on the choice of internet voting (coefficients of logical regression)

Independent variables	B	s.e.	sig.
Left-right scale	-0.135	0.133	.308
Political discussions	-0.073	0.101	.471
Confidence in political institutions	-0.160	0.163	.329
Confidence in politicians	0.219	0.180	.225
Confidence in public authorities	0.095	0.196	.629
Constant	-1.326	.590	.025

Pseudo R² (Nagelkerke): .016 ; n=450 ; in bold = error probability ≤ 5%

The multivariate model confirms the results obtained by the analysis of each variable. There is a total absence of influence from these political variables on the choice of

¹⁶ We've excluded the variable of partisan identification because it severely complicates the presentation of the results. We've nonetheless have tested the same model as that presented in Table 5, adding in the partisan identification variable. Wald's statistical test indicates that the partisan identification does not have a statistically significant effect on the choice of method of vote.

¹⁷ The variables "confidence in the public authorities" and "confidence in Swiss politicians" are the only ones to be correlated (Pearson correlation) at a value superior to 0.5 which we've fixed as threshold. To avoid problems of multicollinearity we've tested different models in which we're included and then excluded one of these two variables. In no case was the general model affected.

internet voting. Neither an interest for politics nor the party identification of those who responded, not even the different measures of political trust explained the choice of internet voting. It is therefore hardly surprising that the global value of the “political” model in explaining internet vote is extremely weak, as indicated by the small value of Nagelkerke’s pseudo R^2 .

We can thus declare that internet voting, vote by correspondence and ballot vote are politically neutral.

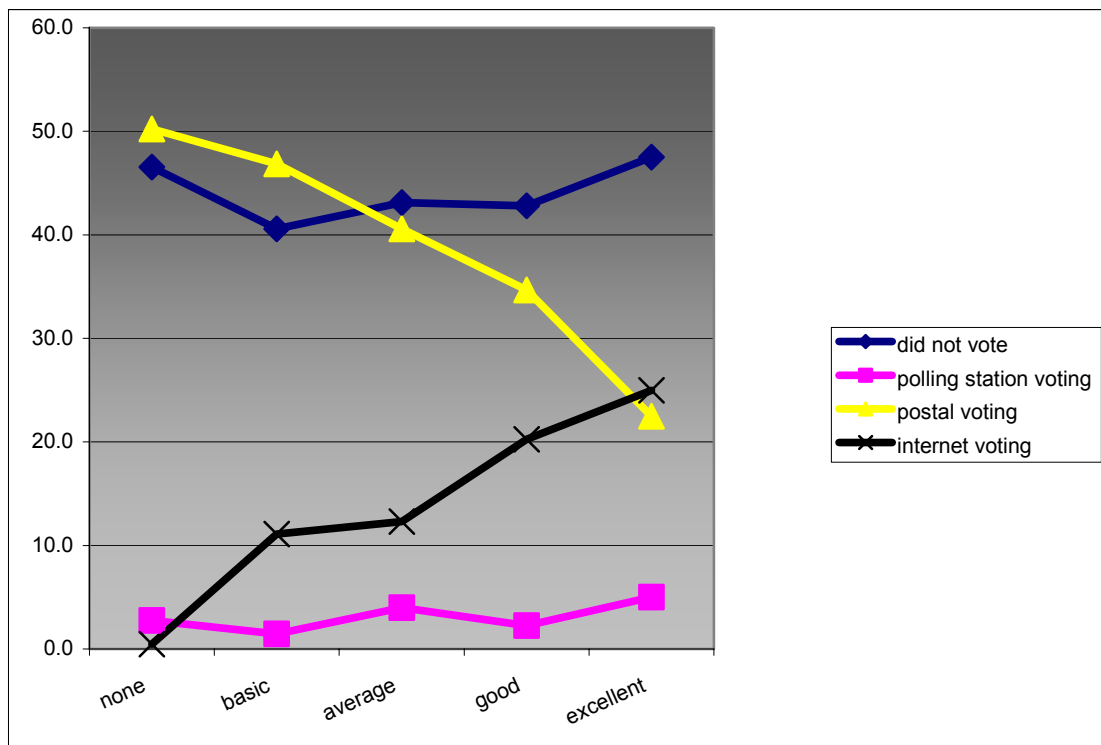
6.3 IT factors

In order to determine the motivation for voting online, we also studied the questions of IT skills, internet use and confidence in this media.

6.3.1 Subjective evaluation of IT skills

The members of our sample were invited to evaluate their level of IT proficiency. The underlying hypothesis is that the higher the perceived level of skills, the higher the probability to vote online. *Graph 17* confirms this hypothesis.

Graph 17: IT skills and voting channel (n=1'004)



There's a strong and statistically significant relation between internet voting and the subjective level of IT skills as seen by the members of the sample. Internet voting is the preferred voting method used by those who judge their IT skills to be excellent. It is interesting to note that these people did not show any mistrust towards internet voting. On the contrary, the more they considered themselves to be IT competent, the more trust they put into internet voting.

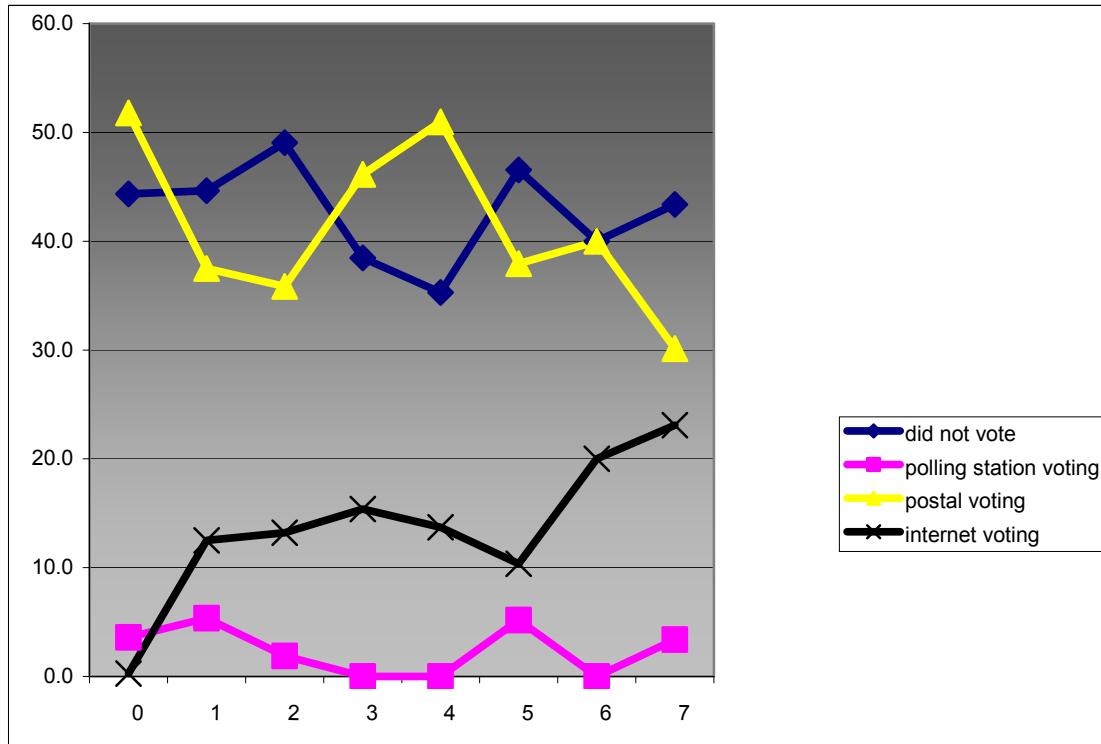
Internet voting is nonetheless not a matter for the specialists. More than 10% of those who deemed their skills as "basic" used internet voting.

The level of IT skills did not affect neither the ballot vote nor the abstention, but did affect vote by correspondence and inversely, internet voting.

6.3.2 Internet utilisation frequency

Graph 18, which represents the correlation between internet utilisation frequency and internet voting, gives an image similar to the previous graph¹⁸. The question asked was “How many times did you use internet during the course of the last seven days”

Graph 18: Internet utilisation frequency and voting channel (n=1'008)



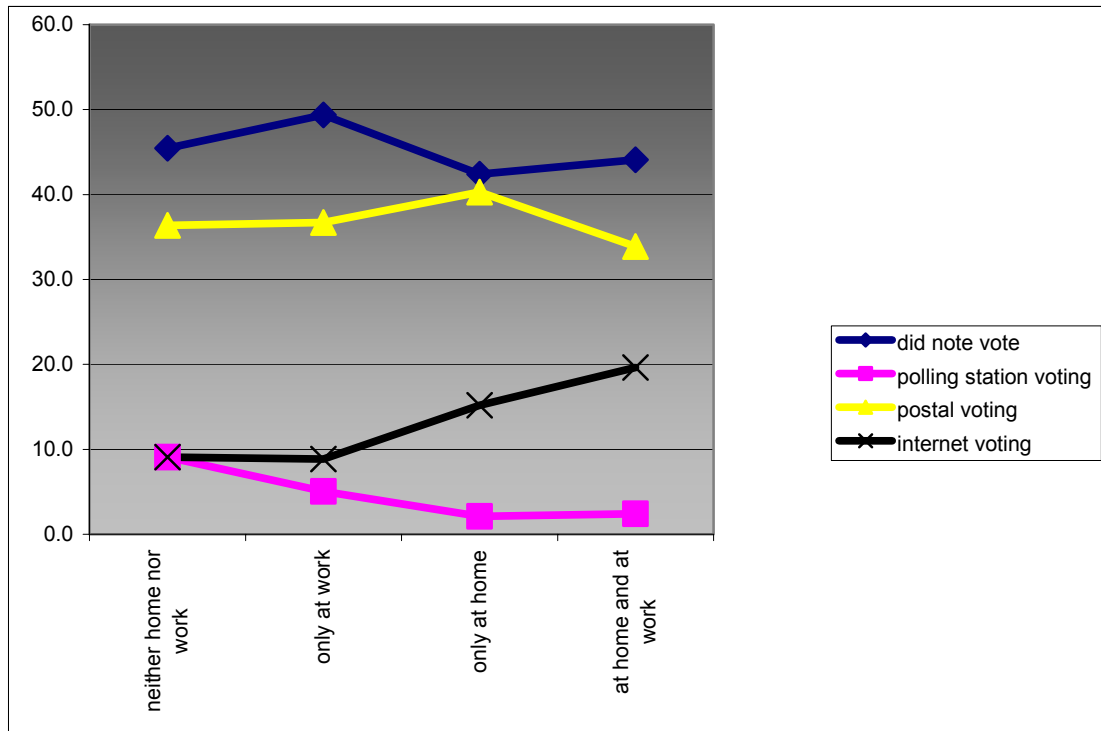
The use of internet voting is proportional to the internet utilisation frequency. Those who go online on a daily basis have an equal probability of using either internet voting or vote by correspondence (25-30%).

6.3.3 Place of internet access

Previously we've seen that online votes come mostly from voters' homes. We now look at the question if having internet only at home or only at work or at both, has any impact on using internet voting (*Diagram 19*).

¹⁸ The correlation of 0.57 between these two variables is significant.

Graph 19: Place of internet access and voting channel (n=743)



Graph 19 shows that having a home internet access raises the probability of voting online. We see also that those who have multiple access, home – work, have the highest probability of voting this way. Therefore multiple accesses and the familiarity that this creates increase the attractiveness of internet voting. We could then formulate the hypothesis that the increase of internet diffusion in households and at work will favour internet voting.

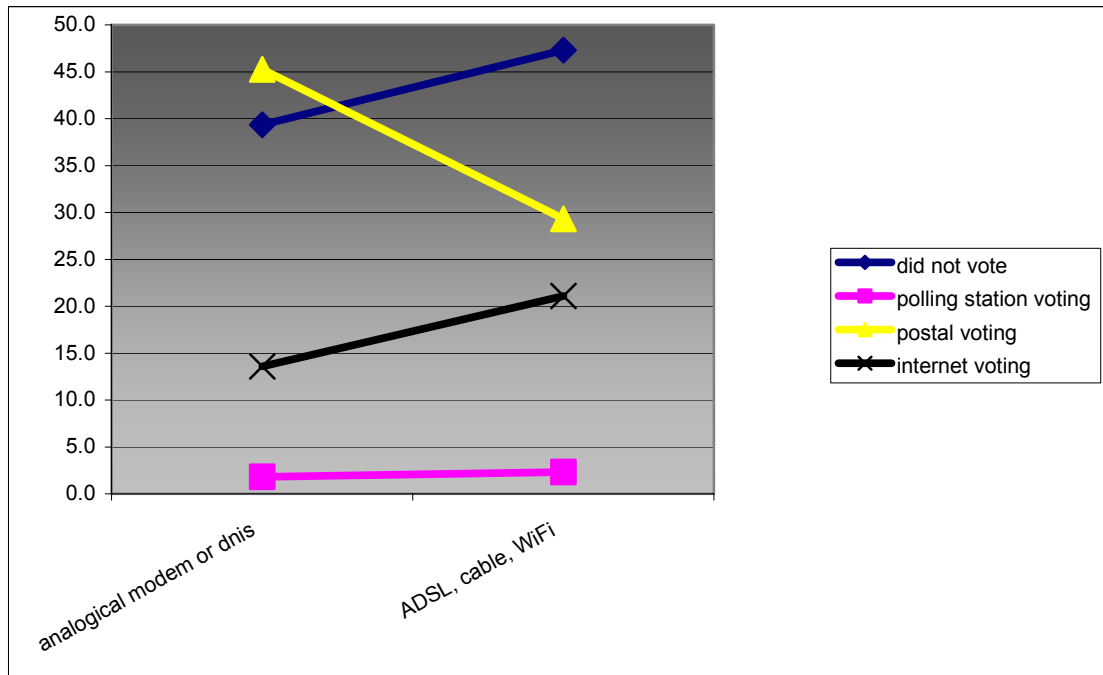
6.3.4 The impact of the type of connexion

An additional aspect of the effect of infrastructure on internet voting concerns the type of internet access. A broadband home connection, such as ADSL could, by its stability and rapidity, incite internet voting.

To verify this hypothesis, we questioned all those who had internet access at home to indicate the type of connection they had. Their response allowed us to validate this hypothesis. The proportion of online voters is significantly higher for those with ADSL, optic fibre cable or WiFi (Graph 20). Their probability of voting online is 21% and approaches that of voting by correspondence (29%)¹⁹.

¹⁹ It is interesting to note that the probability for not participating in the 26 of September ballot is superior among those who have faster connection (ADSL, WiFi or cable) than those who have a slower. This brings us back to the remarks concerning the orientation of the online

Graph 20: Type of connexion and voting channel (n=610)



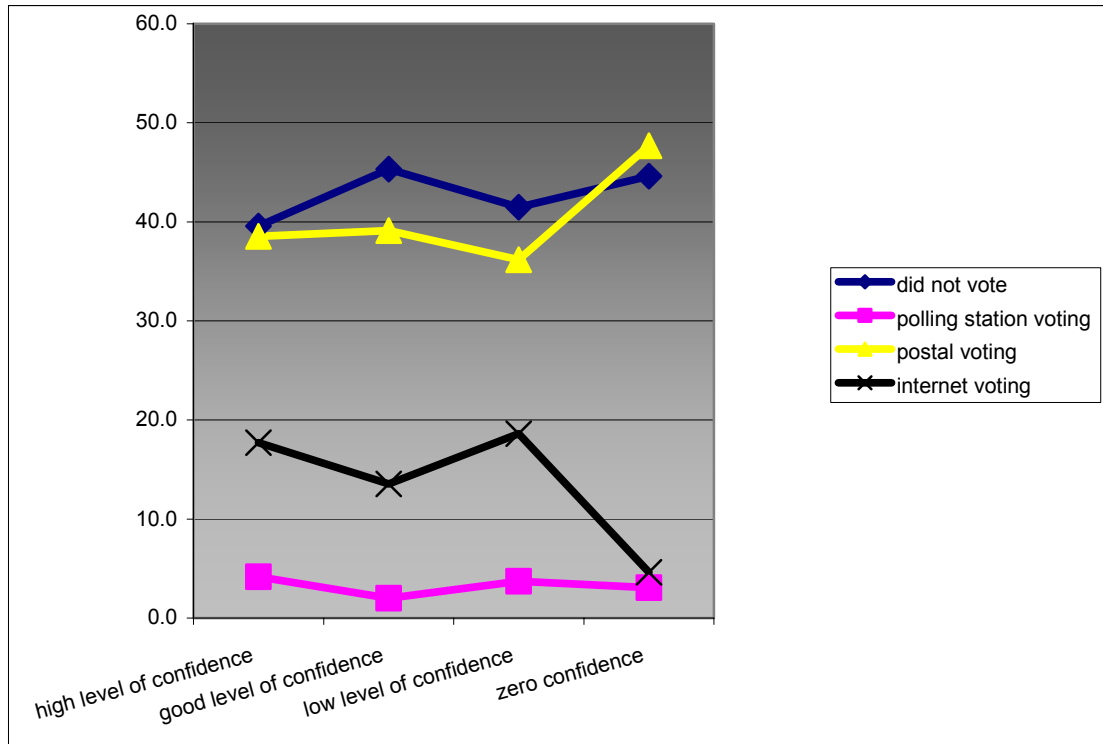
6.3.5 Confidence in new technologies

Similarly it seemed important for us to discuss the question of the citizens' trust in internet in general and in internet voting in particular. Concerning the attitudes towards internet we've distinguished the three classic categories of information, communication and transaction.

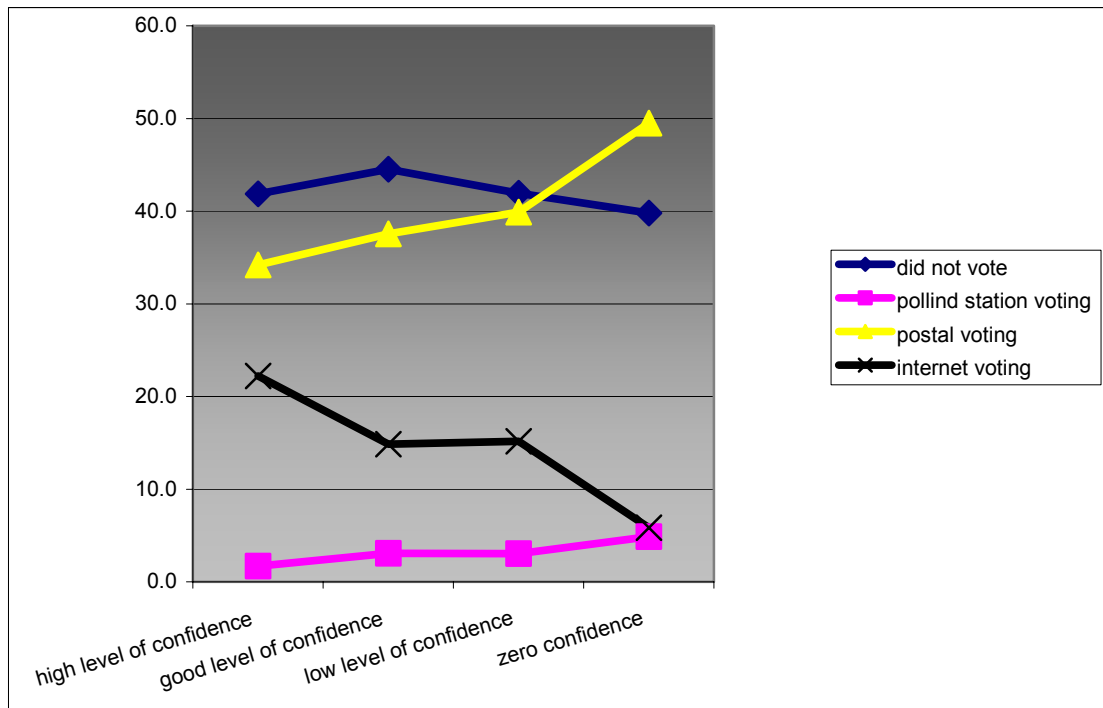
Graphs 21 to 24 show the diverse relations between the degree of confidence and the voting channel.

voters (compare point 5) and the important proportion of occasional or regular abstention among them.

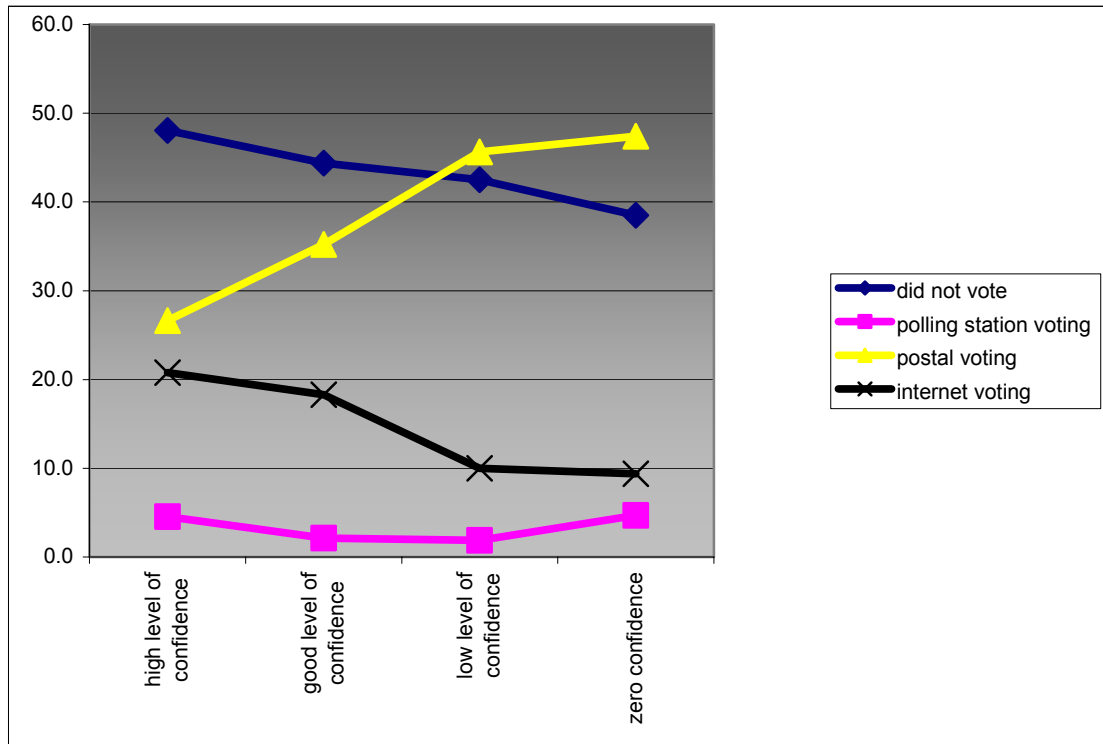
Graph 21: Confidence in the information obtained online and voting channel (n=798)



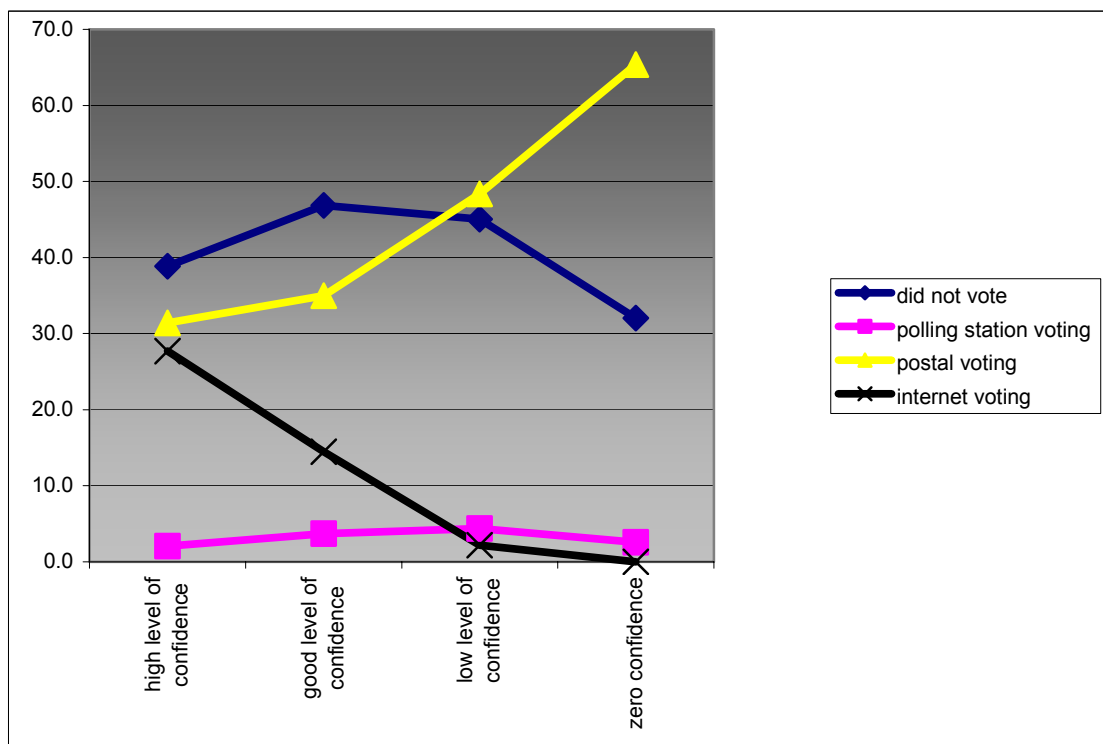
Graph 22: Confidence in online communications and voting channel (n=774)



Graph 23: Confidence in online transactions and voting channel (n=811)



Graph 24: Confidence in internet voting procedure and voting channel (n=792)



Graphs 21 to 24 underline that the more one trusts internet (right up to internet voting), the more one uses it²⁰. The relation between trust and internet voting is particularly marked by the confidence in the procedure of internet voting. None of the individuals who expressed a doubt concerning this procedure voted online.

This distinct result is not self-evident. It was reasonable to imagine that the voters who mistrusted internet voting would have used it out of curiosity or that others would become mistrustful after using it. This is not the case. Trust or mistrust was determined in the user's initial choice for or against internet voting.

It is important to note, that among those with a total trust in internet voting one finds voters who did not vote or who voted by correspondence. This indicates that one can accept a way of voting without necessarily using it. This is an essential element in the construction of internet voting's legitimacy, as this does not depend on its user's acceptance but on the acceptance by a majority of citizens, independent of their personal choice of method of vote.

6.3.6 Multivariate analysis of IT factors

Table 7 gives a multivariate analysis of the IT variables. It gives important information about the direction of the influence of the independent variable and the degree of significance of their effects.

Table 7: Multivariate model of the impact of IT variables on the choice of internet voting (coefficients of logical regression)

Independent variables	B	s.e.	sig.
IT skills	.263	.168	.117
Internet utilisation frequency	.197	.075	.009
Place of internet access	.104	.326	.749
Type of connexion	.901	.320	.005
Confidence in online information	.159	.248	.522
Confidence in online communication	-.384	.196	.050
Confidence in online transactions	.270	.169	.110
Confidence in the procedure of internet voting	-1.338	.255	.000
Constant	-2.008	1.208	.096

Pseudo R² (Nagelkerke): .348 ; n=277 ; **in bold = error probability ≤ 5%**

²⁰ Note the difference between those who have a **low level of confidence** in internet and those who have **zero confidence**. Among the first some voted by internet. In the second group no one did. This nuance is absent in the confidence in the procedure of internet voting. It did not matter if they hardly or absolutely did not trust the procedure. They did not use it.

Table 7 reveals that the subjective elements in the voters' relation to internet, e.g. their frequency of internet use, their type of connection, their confidence in internet communications and their confidence in the procedure of internet voting, predominate in their reason for using internet voting²¹.

This model presents the highest pseudo R² of the three multivariate models of this study. Its validity in explaining the reasons for or against internet voting is therefore much stronger than the two precedents models.

6.3.7 The global model

We finally combined the three partial models, socio-economic/demographic, political and IT, in a global one. By including the "net" effect of each variable, holding constant the variation of the other variables, we found a model in which the validity, as indicated by Nagelkerke's pseudo R², is superior to that of all the precedent models (Table 8).

Table 8: Multivariate model of the influence of the independent variables on the choice of internet voting (coefficients of logical regression)

Independent variables	B	s.e.	sig.
Age (in blocks of 10 years)	-.172	.176	.329
Gender	-.092	.250	.712
Level of education	.547	.449	.223
Household gross monthly income	.186	.096	.054
Left-right tendency scale	-.094	.250	.706
Political discussions	-.314	.192	.102
Confidence in political institutions	.195	.300	.515
Confidence in politicians	.356	.305	.243
Confidence in public authorities	.226	.361	.530
IT skills	.612	.253	.015
Internet utilisation frequency	.205	.110	.063
Place of internet access	-.336	.487	.489
Type of connexion	1.096	.445	.014
Confidence in online information	-.117	.362	.747
Confidence in online communication	-.720	.307	.019
Confidence in online transactions	.322	.226	.154
Confidence in the procedure of internet voting	-1.234	.345	.000
Constant	-3.622	2.123	.088

Pseudo R² (Nagelkerke): .423 ; n=178 ; **in bold = error probability ≤ 5%**.

²¹ The alternative models we tested confirm the statistical significance of these variables, to which we can also add the level of IT skills, which is very frequently statistically significant

In the global model the significant effects shown in the social-economic and demographic model disappear. Neither age nor income had any influence. However the effect of income was almost statistically meaningful (as we shall see). The political variables appear equally irrelevant in the choice of internet voting. This leaves us with the significant variables of the IT model, with the exception of the “IT skills” variable, which imposes itself at the expense of the “internet utilisation frequency” variable.

We have tested other similar models, in turn omitting certain variables, in the effort to verify our results. We first created a global model without the “type of connection” variable. Due to this, the number of considered cases rose from 178 to 205 individuals. All of the key variables stayed statistically significant, but this model induced two more statistically significant variables, the household gross income and the internet utilisation frequency. In the global model these two variables are close to the 0.05 signification mark. The increase in the number of individuals taken into account in the alternative model probably caused the difference in the statistical significance.

We then tested an additional model, leaving out the variable which exerts the most influence for or against internet voting, namely the confidence in the internet voting procedure. The omission of this variable does not change the results²².

It is the confidence in internet voting and other online communications, the type of connection and the subjective evaluation of one’s own computer abilities (and to a lesser extent the frequency of using the internet) which explain why certain voters have opted for internet voting and others not. Neither age nor gender, level of education, political variables, nor some remaining IT variables are statistically associated with internet voting.

This choice depends more upon the attitude toward novelty and technical matters than upon socio-demographic factors such as age, gender or income. In this sense using internet voting is a personal choice and could almost be considered the indicator of a lifestyle in which information technologies play a pivotal part. On the contrary, internet voting is not an indicator of social rank.

This findings cast a doubt on certain simplistic explanations sometimes found in some specialised publications or in the general media. While we know for example that women do less internet voting and that men and youths do more, our analysis shows

²² The same is true if we simultaneously omit this variable and the one on the connection type. Then again, the household income and the frequency of internet use become significant.

that these variables do not help to explain the decision for or against internet voting. This choice depends much more on the subjective attitude and the objective opportunities in connection with information and communication technologies.

Finally, let's note that concerning those variables measuring the confidence in internet in general, the only one with a significant effect is the one concerning communicating by internet. Neither the confidence in information found on the web nor that in the transactions made online were statistically significant.

Intuition could lead us to think that internet voting would be used by those whose use the web for other transactions such as e-banking or e-commerce. This is not the case. We could formulate the hypothesis that the electorate sees internet voting more as a form of communication with the authorities and perhaps other citizens as a transaction.

7 The effect of internet voting on the voting results

7.1 Methodology

A central preoccupation is to determine if the voting mode affects the voting result. In other words, does each voting method generate a specific result or, do the results of the three voting methods converge?

We have evaluated for each issue voted upon in the September 26 ballot if the rate of acceptance or rejection varied according to the voting mode chosen. For this we have created a multivariate model for each issue. The dependant variables of this model are dichotomous (1 = acceptance, 0 = rejection).

For each model we've included a series of previously tested variables. These variables are of the type socio-economic/demographic and political. As independent variable we've added the binary method of vote. This being 1 = internet voting, 0 = a traditional voting channel.

Tables 9 and 10 show the results. Remember that it is not possible to estimate the influence of each variable on the base of the non-standardised coefficients (B) of logical regression. In return the polarity of the coefficient (positive or negative) indicates the direction of the relation. For example, a positive coefficient for the income means that the higher the income, the higher the acceptance will be of the issue voted upon.

7.2 A politically neutral vote

For us it was crucial to determine if the effect of the independent variables and especially of the voting channel were statistically significant (at the 5% threshold)²³.

We can summarise our particular find as follows: internet voting is politically neutral. Internet voting did not have the slightest influence on the acceptance or refusal of the six ballots held on 26 of September 2004.

²³ If the variable is significant at the 5% mark (error probability $\leq 5\%$), then we can infer with an error probability $\leq 5\%$ that the independent variable (i.e. the voting method) influences the dependent variable (i.e. the result of the vote).

Table 9: Explanation of the vote results for the four federal ballots

Simplified acquisition of Swiss citizenship by foreign youths born in Switzerland (n=340 ; Pseudo R ² (Nagelkerke)=.291)			
Independent variables	B	s.e.	sig.
Age (in blocks of 10 years)	-.055	.104	.600
Gender	.009	.173	.959
Level of education	-.177	.325	.586
Household gross income	.118	.062	.058
Political discussions	-.195	.172	.258
Left-right tendency scale	-1.048	.153	.000
Traditional voting/internet voting	.134	.401	.739
Constant	4.753	1.048	.000
Simplified acquisition of Swiss citizenship by third generation foreign residents (n=338 ; Pseudo R ² (Nagelkerke)=.266)			
Independent variables	B	s.e.	sig.
Age (in blocks of 10 years)	-.075	.111	.500
Gender	.231	.181	.202
Level of education	.081	.334	.809
Household gross income	.067	.064	.297
Political discussions	-.228	.179	.204
Left-right tendency scale	-.967	.155	.000
Traditional voting/internet voting	-.091	.409	.825
Constant	4.165	1.062	.000
Law proposal aiming at protecting the postal service from privatisation (n=313 ; Pseudo R ² (Nagelkerke)=.095)			
Independent variables	B	s.e.	sig.
Age (in blocks of 10 years)	.063	.088	.469
Gender	-.363	.153	.018
Level of education	.381	.268	.155
Household gross income	-.003	.049	.948
Political discussions	-.297	.147	.044
Left-right tendency scale	-.329	.112	.003
Traditional voting/internet voting	.116	.321	.718
Constant	2.769	.879	.002
Mandatory maternity benefits (n=340 ; Pseudo R ² (Nagelkerke)=.136)			
Independent variables	B	s.e.	sig.
Age (in blocks of 10 years)	.042	.140	.764
Gender	.282	.222	.204
Level of education	.083	.416	.843
Household gross income	-.035	.079	.654
Political discussions	-.039	.224	.863
Left-right tendency scale	-.698	.178	.000
Traditional voting/internet voting	.064	.501	.899
Constant	3.766	1.306	.004

In bold = error probability ≤ 5%.

Table 10: Explanation of the vote results for the two cantonal ballots

Law on the sale of alcoholic beverages at night in gas stations (n=327 ; Pseudo R ² (Nagelkerke)=.035))			
Independent variables	B	s.e.	sig.
Age (in blocks of 10 years)	-.005	.076	.946
Gender	.051	.126	.684
Level of education	.293	.234	.210
Household gross income	.045	.043	.303
Political discussions	-.015	.127	.904
Left-right tendency scale	-.220	.100	.027
Traditional voting/internet voting	.052	.278	.853
Constant	-.610	.715	.394
Law on buildings renovation (n=263 ; Pseudo R ² (Nagelkerke)=.063)			
Independent variables	B	s.e.	sig.
Age (in blocks of 10 years)	.165	.094	.080
Gender	.096	.144	.504
Level of education	-.324	.278	.243
Household gross income	.065	.051	.204
Political discussions	-.143	.157	.363
Left-right tendency scale	.186	.112	.095
Traditional voting/internet voting	-.083	.339	.806
Constant	-1.758	.864	.042

In bold = error probability ≤ 5%.

We see that in five cases out of six (the exception being the cantonal law on buildings renovation), the left-right tendency variable had a very significant impact on the voters' choice. With the exception of the cantonal law on buildings renovation, we see that the more the voters tended to the right, the more they tended to reject the issue in question.

The federal initiative "Postal services for all" is a special case. Here the gender and the frequency of the political discussion had a significant impact, alongside with the variable left-right.

The explanatory value of most of these models is however very weak, as indicated by the Nagelkerke's pseudo R². Apart from the simplified acquisition of Swiss citizenship by foreign youths born in Switzerland and third generation foreign residents, for which the pseudo R² exceeds the threshold of statistical significance, the other models do not really explain the political choices made.

Visibly the explanatory variables do not appear in these models. But it wasn't our job to explain the reasons behind the political choices made in the four municipalities studied.

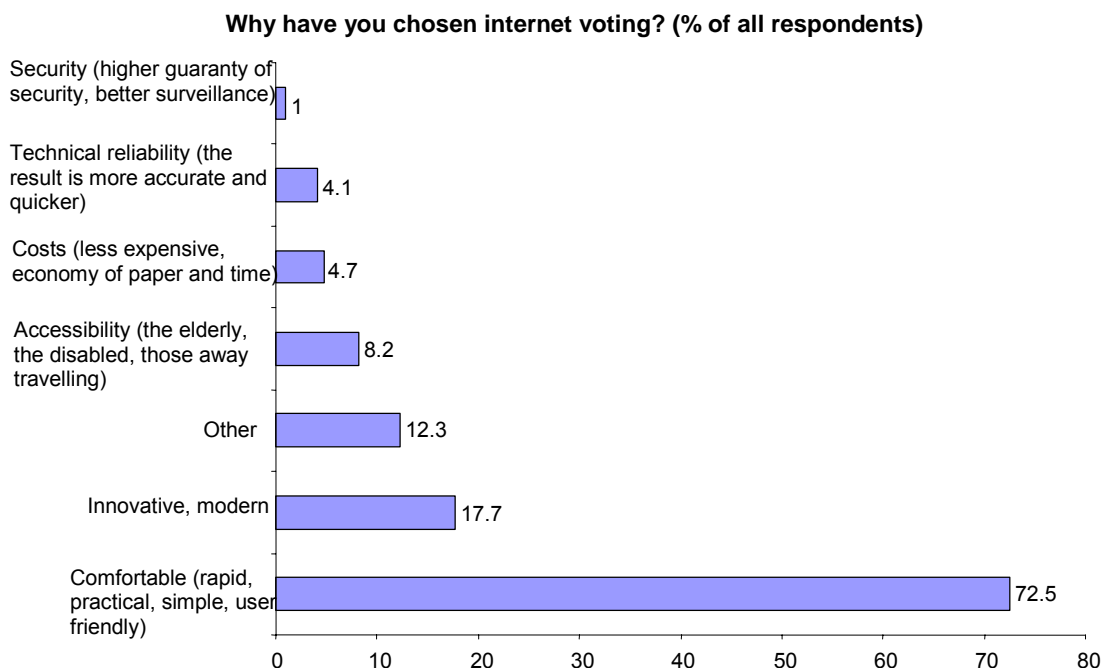
This fact doesn't influence our principle result: Internet voting is politically neutral and does not influence the acceptance or refusal of the issues voted upon.

8 Subjective reasons for or against internet voting

We present here the answers to the open questions asked the sample audience. Here they could freely name one or more reasons why they voted online or not²⁴. The open nature of the question allows us to highlight the spontaneous reasons for using internet voting.

Graph 25 shows the reasons most frequently mentioned to explain the choice of internet voting. The most common response concerned the general comfort (practical, simple, user friendly) cited by 73% of our audience. To a lesser extent, the innovative character of the procedure (18%) and the accessibility (8%) were also mentioned. The cost reduction (5%), the technical reliability (4%) and the security (1%) were less frequently cited.

Graph 25: Reasons for voting online (n=123)



The reasons for not employing internet voting are less distinct (*Diagram 26*)²⁵.

²⁴ This field was studied at the request of the Federal Chancellery. Since it is an open question, no response was suggested by the interviewers. 123 individuals have mentioned one or more reasons for internet voting but, as it was possible to mention more than one, the total is superior to 100%. The responses were regrouped by the Erasm Institute.

²⁵ 442 individuals mentioned at least one reason for not voting online. As it was possible to give more than one reason, the total is superior to 100%.

Nonetheless three main reasons can be retained:

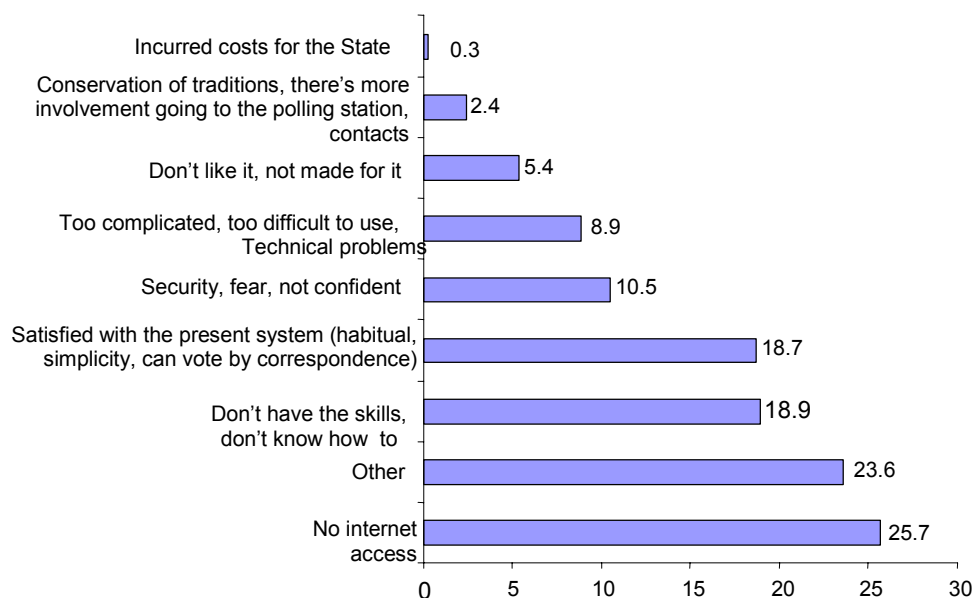
- The absence of internet access (26%),
- Missing skills (19%)
- The satisfaction with the existing possibilities, i.e. voting at the polling stations and vote by correspondence (19%).

This indirectly confirms the fact that internet access and the assurance of having the necessary know-how are the determining factors for the use of internet voting.

It is interesting to note that as some citizens find that internet voting is an improvement in the comfort of voting, while others find that the present possibilities suffice. This observation confirms the fact that internet voting addresses a distinct social group of persons who are characterised by their large scale adoption of information technologies in their daily life. This does not mean that it will always be so. If services based on information technologies are further diffused among the population the recruitment of internet voting might well extend to the entire electorate.

Graph 26: Reasons for not voting online (n=442)

Why didn't you vote online ? (% of all respondents)



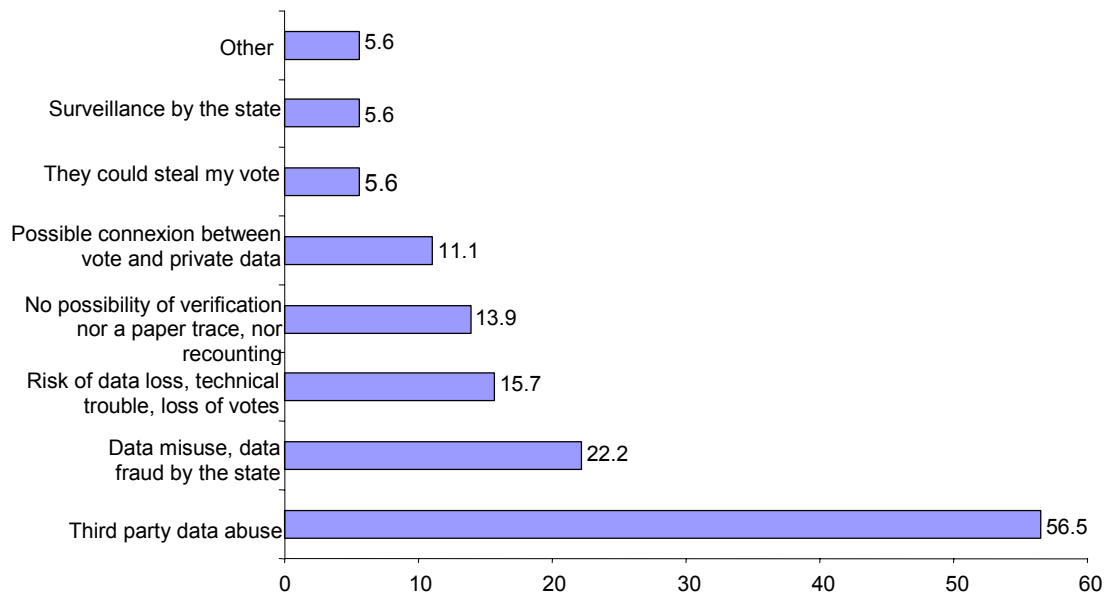
9 Security

Even though only 10% of the non-online voters named security as their justification against internet voting, it was of interest to us to question these people about their principle fears and doubts (*Graph 27*).

Of the 42 people who responded to this question 57% mentioned data misuse or hacking. To a lesser extent they mentioned data abuse or fraud by the state (22%), data loss, technical trouble or vote loss (16%), the lack of control possibilities, the absence of a paper trail or the problems of recounting (14%), possible connection between the vote and personal data (11%). Finally, some people mentioned the risk of voter ID theft, the registration and classification of the vote by the state. The limited number of persons responding cautions us not to over-interpret the statistical significance of these results.

Graph 27: Fears expressed concerning security (n=42)

Fears expressed concerning security (% of all respondents)



Concerning the risk of hackers committing data fraud or data misuse a number of studies have shown that the voter's computer is the weakest link in the data treatment chain. It's interesting to note that, among those who responded and who have an internet connection at home, 86% had installed protective software such as an anti-virus. We do not make any conclusions from this concerning internet voting. We only want to underline that web users are already sensitive to the security question and take corresponding measures to assure their protection.

10 Conclusion

Sociologists and political scientists observe that our society is fragmenting. The notion of collective good is fading more and more behind that of individual interests. Due to this fact it is becoming evermore difficult to find a consensus and define a coherent political approach.

It is important that there is a strong legitimacy in the results of the vote so that our society stays governable. The search of new modes of participation goes along these lines. Internet voting is as of this day, one of the most innovative and interesting attempts in this direction.

Most can get to a voting station without all too much difficulty. Everyone can vote by correspondence. But we do not all have a computer or an internet connection. It was necessary to verify that internet voting did not create an inequality in the vote. This was the reason of this study.

This study has shown that internet voting attracts voters with the profile “new technologies” but does not distinguish a political tendency. With this conclusion we’re happy to have contributed to the democratic modernisation undertaken in Geneva.
