Digital Citizenship in the South Caucasus: A Comparative Analysis between Armenia, Georgia, and Azerbaijan

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Introduction

The concept of digital citizenship has received little attention outside of Western countries and contexts. This exploratory study seeks to evaluate the utility of the concept of digital citizenship by comparatively examining three countries in the South Caucasus region: Armenia, Georgia, and Azerbaijan. Using survey data from the Caucasus Research Resource Center, an empirical model will be evaluated and tested. In particular, this model will test empirical measures of digital citizenship on political attitudes and outcomes that coincide with the research literature. Comparisons between Armenia, Georgia, and Azerbaijan on the effectiveness of digital citizenship will be summarized. In addition, this research will also contribute to empirically evaluating the claims of digital citizenship in a unique political and geographic area of the world.

Democratic Visions and ICTs

One popular misconception concerns the impact of information and communication technologies (ICTs) on political practices particularly with respect to democratization. Democratization implies a transformation from an authoritarian or semi-authoritarian system to democratic systems. In such democratic systems, we may find evidence for universal suffrage, regular elections, civil society, and the rule of law. Historically, various technologies have been linked to enhanced democratic practices. Canals, railroads, factories, TV, and radio have all been accompanied by "enthusiastic proclamations that the innovation would give ordinary folks greater access to resources, more power over key decisions and broader opportunities for political involvement" (Winner, 2003, p. 167). Furthermore, ICTs are almost always associated with utopic visions that imply societies will become more egalitarian and encourage new forms of communication practices that will transform the relationship between governments and the demos (Elliot & Kraemer, 2008). In the public discourse, democratic governments justify high levels of spending on ICT infrastructures and projects by claiming that ICTs, in and of themselves, can promote, improve, and expand more direct and participatory forms of citizen engagement. Yet, despite all this promise, democracies are far from ideal (Song, 2000). In other words, there is a persistent gap between the utopic visions around ICTs and democratic practice. Therefore, a more balanced perspective recognizes that ICTs do not exist in isolation from other explanatory factors.

Nation States and ICTs

Despite the deterministic claims regarding the nature of technologies, prior studies have shown that nation states have a strong influence on the development of ICTs. For example, nation states have shaped ICTs in ways to preserve domestic language and culture. According to Sandvig (2012), France, Hungary, South Korea, Italy, and Spain have placed legal restrictions on media to limit the flow of

imported content. Culture and programming quotas are still implemented to check the overwhelming flow of media from the United States (p. 179). Tsatsou (2010) demonstrates how the digital divide in Greece is best explained not through the lack of technologies but rather due to culture and regulatory forces. Her research found that a significant number of users were "digitally constrained, insufficiently literate and relatively reserved about the Internet and its impact on life" (p. 219). In addition, poor regulation of telecommunication policy lead to decision-making that was bureaucratic, inefficient and non-modernized (p. 220). Her finding observes how typical discourse on the digital divide fails to account for the intersecting factors of culture, regulation, and technology.

There is a natural tendency to assume that ICTs bring about democracy through the decentralizing nature of networked communications. However, nation states that place a high priority on controlling information within their regimes demonstrate an impressive ability to shape the development of ICTs in ways that further centralize and restrict citizen freedoms. For example, China and Azerbaijan engage in "Networked Authoritarianism" where a standing regime shapes ICTs in ways that maintain control of the nation state by ensuring that "threats are jailed; truly competitive, free, and fair elections are not held; and the courts and legal system are tools of the ruling party (MacKinnon, 2011, p. 33). Pearce and Kendzior (2012) conclude that the Azerbaijan government is threatened by Internet use and applies networked authoritarianism in ways that make online political expression extremely risky. Howard et al. (2011) documents several ways that nation states control the use of social media within their borders. This can be done through online (shutting down websites), offline (arresting journalists), by proxy (forcing ISPs to deny access to content) or by shutting the entire network down. The authors revealed that these actions can be taken by both authoritarian and democratic regimes.

For this paper, our intent is to apply a sociotechnical perspective. A sociotechnical perspective helps to see how ICTs are embedded in politics, culture, geography, and institutions. By examining the context of where ICTs are deployed, we can begin to develop more realistic understandings of ICTs that offer more utility than utopic visions. The South Caucasus represents one of these unique contexts to observe how ICTs contribute to the idea of digital citizenship within countries that are aiming to improve their standings in the global order.

Digital Citizenship

Digital citizenship first appeared in the academic literature related to e-governance. Shulman et al. (2002) determined that unequal levels of information technology (IT) literacy are a significant barrier to equity in citizenship. The researchers linked information technology literacy (ITL) to helping citizens to acquire electronic access to government institutions. A later iteration of digital citizenship concentrated on socio-structural factors such as income and education (Shelley et al., 2004) and technological access such as frequent Internet use (Mossberger, Tolbert, and McNeal, 2007; Mossberger, 2008). In 2007, Mossberger, Tolbert, and McNeal argued that inequalities in access and use of ICTs reduce the possibilities of achieving digital citizenship. They define digital citizenship as having Internet access at home and using the Internet frequently. Thus, as citizens gain more experience

going online, they become digital citizens. Mossberger (2008) contends that digital citizenship is a prerequisite for engaging in political life both online and offline.

> What does it mean to be a digital citizen? Participation in society online requires regular access to information technology and the effective use of technology. Digital citizens can be defined as those who use the Internet every day, because frequent use requires some means of access (usually at home), some technical skill, and the educational competencies to perform tasks such as finding and using information on the Web, and communicating with others on the Internet (Mossberger et al, 2007). Because of the explosion of political information and opportunities on the Web, digital citizenship is an enabling factor for political citizenship, whether practiced online by responding to Listserv solicitations for campaign contributions or offline at the voting booth. (pp. 173-174)

In short, Mossberger et al. contend that the "Internet has the potential to benefit society as a whole, and facilitate the membership and participation of individuals within society" (p. 1).

The concept of digital citizenship assumes that frequent Internet use develops educational competencies such as using the Internet to search for political information. Research by Hargittai and Hinnant (2008) demonstrates, however, that capital-enhancing activities, such as political information use, are only undertaken by high socio-economic status individuals. In addition, research by Prior (2007) contends that the Internet, with its plethora of content choices, will segregate users into information and entertainment segments. As a result, an important question to ask is to what extent does digital citizenship enable political citizenship? A related question is how does the concept of digital citizenship apply in other non-Western contexts such as the South Caucasus?

ICTs and the South Caucasus

The collapse of the Soviet Union (1991) and the emergence of independent countries of Azerbaijan, Armenia and Georgia in the South Caucasus marked a new era in the region, an era of political, social and economic changes. In spite of a shared cultural and historical background, each country has chosen its own path of development catalyzed by either rich oil and gas resources (Azerbaijan), diaspora support (Armenia), or an attractive business environment (Georgia). However, taking into consideration the geopolitical significance of the region since its independence, the region has been suffering from wars and national conflicts that have resulted in hundreds of thousands of deaths and refugees. One of the major conflicts, the Nagorno-Karabakh war, has resulted in an Armenian occupation of Nagorno-Karabakh and the surrounding regions of Azerbaijan. More than 800, 000 Azerbaijanis (MacDougall, 2009) fled out of their homes to become refugees in their own country. In Georgia, separatist movements in South Ossetia and Abkhazia jeopardize the development and stability of the country.   As a whole, national conflicts and separatist forces, coupled with relatively undeveloped public and local institutions, render each of the South Caucasus states unstable (MacDougall, p. 6., 2009).

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There are about 4.5 million Internet users in Azerbaijan. Household users represent 39% of the total users followed by users going online from workplaces (20%), Internet cafes (15%), libraries (0.5) and other (17%) (Mammadov, p.62). According to the *ITU World Telecommunication/ICT Indicators 2010* database, Azerbaijan leads in availability of Internet access at home between the three South Caucasus countries: 35.3 % of the Azerbaijan population has access to the Internet at home in comparison to 16.6% in Georgia and 13.6% in Armenia, respectively. Azerbaijan also fosters technological innovation in the country through procurement of advanced technology products. According to 2012/2013 *WEF The Global Competitiveness* report, Azerbaijan ranked 19th in government procurement of advanced technology followed by Georgia (60th) and Armenia (108th).

Using a composite index of cross-country ratings for ICT infrastructure and access, Hanafizadeh et al. (2009) developed a way to measure aspects of the digital divide between 150 countries. Countries with a higher index were further along in addressing the digital divide. Given the geographic similarities of the countries, it is not surprising that the South Caucasus ranked relatively close to each other. Georgia ranked 85th on the scale followed by Azerbaijan (90th) and Armenia (106th).

In terms of political systems, the three countries in the South Caucasus differ the largest between Azerbaijan as the least and Georgia as the most democratic nation. Forstmeier et al. (2011) compiled a list of country rankings based on Freedom House's reports on political rights and democratization. Democratic progress was ranked on a variety of political characteristics that ranged from political rights to the role of media. All political measurements placed Azerbaijan below Armenia and Georgia on these indices. The difference between Georgia and Armenia is less noticeable but, as a whole, Georgia is further along with regards to political rights and opportunities. As for civil society in the South Caucasus, Wheatley (2010) concludes that non-governmental organizations (NGOs) that operate in the South Caucasus do not represent civil society and are better thought of as "a narrow spectrum of political activists that belong more to political society than to civil society or, alternatively, providers of (mainly foreign-funded) humanitarian support" (p. 5).

The South Caucasus represents a unique part of the world that is surrounded by former superpowers and is subject to their external pressure and influence. According to Coene (2010), each nation has their own foreign policy influence with Georgia being pro-US, Armenia aligned with Russia, and Azerbaijan favoring a more balanced outlook but closely tied with Turkey. Because digital citizenship as a concept is advanced in Western countries, we suspect there is an alignment between foreign policy influence and the effectiveness of digital citizenship. Therefore, using foreign policy influence as a guide, we expect that the model for digital citizenship will be strongest in Georgia and least effective in Armenia. As mentioned earlier, there have been few empirical examinations of digital citizenship outside of Western countries.

Applying a sociotechnical lens, this paper is an attempt to examine the role of digital citizenship in the South Caucasus. It will explore digital citizenship in two ways. One is to determine what factors lead Internet users to become digital citizens or frequent Internet users. Based on the literature, these factors encompass socioeconomic characteristics, computer knowledge and use, and home Internet

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access. The second way to investigate digital citizenship is significant correlation with political action. Does frequent Internet use lead to political action given the unique social and political context that shapes the use of the Internet in the South Caucasus? The next section describes the method and data analysis.

Method

To examine the concept of digital citizenship in the South Caucasus, this paper uses data from the Caucasus Barometer 2010 survey. This face-to-face survey was conducted by the *Caucasus Research Resource Center* from November to December 2010. Overall, the sample size was 1922, 2001, and 2089 respondents for Armenia, Azerbaijan, and Georgia respectively. To examine the concept of digital citizenship, all non-Internet users were dropped from the sample. Table 1 displays descriptive statistics for demographics, Internet use, and political variables of the Internet users for each country. With respect to demographics, there are only a couple of numbers that stand out. Azerbaijan has a larger proportion of male Internet users in comparison to Armenia and Georgia. Also, Azerbaijani Internet users have higher incomes than their South Caucasus counterparts.

<Insert Table 1 here>

Dependent Variables

There are two types of data analysis for understanding digital citizenship. One examines the factors that contribute to digital citizenship operationalized as frequent Internet use. For this study, frequencies of Internet use were recoded to a binary variable to represent Internet users who go online every day. Therefore, frequent Internet use is a respondent who uses the Internet every day and will be the dependent variable. Table 1 shows some differences between digital citizenship among the three countries. Azerbaijan has less than 1 in 5 Internet users that go online every day. In contrast, Armenia and Georgia have approximately twice as many every day Internet users.

The next analysis will place digital citizenship as an antecedent in a model predicting political participation. Political participation is operationalized as the intent to vote in the next election and is a binary dependent variable. With respect to intent to vote, all three countries have over 80% of Internet users intending to vote in the next election. The two dependent variables (digital citizenship and political participation) will be regressed against control and independent antecedents. In doing so, we will compare the results between the three countries.

Control Variables

As mentioned earlier, socioeconomic characteristics along with aspects related to computer knowledge, experience, and the presence of a home Internet connection are significant predictors of digital citizenship. Table 1 lists the median values for the categorical variables: years of home Internet use (6 item index, Max: 6 years or more), computer knowledge (4 item index, Max: Advanced), and

frequency of PC use (5 item index, Max: Multiple times per day). Internet users in the South Caucasus are primarily beginners that have recently acquired Internet access in their home. Armenian and Georgian Internet users have more frequent use of the personal computer than Azeri Internet respondents.

Motives, characteristics, and social contexts explain many individual-level effects for political participation (Bimber, 2003; Muhlberger, 2004; Robbin & Buente, 2008). To observe the significance of digital citizenship as a factor for political citizenship, a number of political communication variables that typically correlate with political action were added to the model. These variables reflect both the current political climate in the country along with normative orientations toward democracy (i.e. desire to protest). Antecedents relating to the perception of traditional media use were also included in the model. In addition, specific factors focusing on election attitude and behavior were included as controls. Table 1 shows median values for the following categorical variables: treated fairly by the government (4 item index, Max: Completely agree), TV journalists inform and TV serves the people (5 item index, Max: Very well), and people should participate in protests (5 item index, Max: Strongly should). Averages were calculated for the remaining political variables. As a whole, the political characteristics of Internet users vary in the South Caucasus. For example, only 11.9% of Georgian Internet users believe the last election was unfair compared to 29% Azeri and 38.8% of Armenian Internet users. Moreover, Georgian Internet users are predominantly more likely to perceive the ability to speak freely and also believe that the government serves the people as an employee. However, Internet respondent views toward traditional media showed no variance among the three countries.

Results

Table 2 shows the results of the three binary logistic models for predicting digital citizenship as frequent Internet use. After listwise deletion of missing cases among the Internet user sample for each country, a subset of Internet users was analyzed for the logistic regression model. Unfortunately, missing data dropped the number of Internet users in the analysis considerably more for Azerbaijan (N=107) than for Armenian (N=218) and Georgia (N=206). Therefore, caution should be exercised when interpreting the results reported in this study.

<Insert Table 2 here>

For Azerbaijan and Georgia, only computer knowledge and frequency of PC use significantly correlated with every day Internet use. Demographic variables and Internet variables were significant in the model for Armenia. In order to interpret the magnitude of the significance, Table 2 displays the percentage change in the odds (factor change) for every day Internet use. Factor change values that are greater than one represent odds that are improving by the listed value. Factor change values that are less than one and greater than zero represent odds that are decreasing by the listed value. For example, the odds of every day Internet use by Armenian Internet users increase by 16.9% for every additional year of education, holding all other variables constant. There was a negative relationship between household income and every day Internet use for Armenian respondents, holding all other variables

constant. This is an interesting result because income is usually positively correlated with greater Internet use. Overall, the most consistent and largest impact on every day Internet use is the frequency of PC use. When holding all variables constant, moving up one category for frequency of PC use (ex. once a week to multiple times per week) increase the odds of every day Internet use by a factor of 2, 4, and 8 for Armenia, Azerbaijan, and Georgia respectively. In addition, computer knowledge is a consistent and significant predictor of digital citizenship. The odds an Internet user in the South Caucasus will use the Internet everyday increase by a factor of 1.8 to 3.0 based on a one category improvement of computer knowledge (ex. beginner to intermediate), holding all variables constant.

The next question is the extent to which digital citizenship can predict political citizenship in the South Caucasus. The odds ratios for a logistic regression predicting voting participation in Azerbaijan, Armenia, and Georgia are shown in Table 3. As in the previous analysis, listwise deletion of missing variables only allows for testing a subsample of Internet users. Missing survey data created the most missing cases for the Azerbaijan data set.

<Insert Table 3 here>

Table 3 demonstrates that digital citizenship is not a significant predictor for political citizenship in the South Caucasus. Only in Azerbaijan does every day Internet use begin to approach significance when controlling for all other factors explaining political participation. The model for Azerbaijan has the largest amount of significant variables (7) followed by Armenia (5) and Georgia (2). For Azeri Internet users, antecedents that considerably increased the likelihood of voting in the next election were age, treated fairly by the government, believing that TV serves the interest of the people and voting in the last election. Factors that significantly reduced the likelihood of voting in the next election believed that: TV journalists inform the people, people should participate in protests and recent elections were unfair. In Armenia, significant positive variables for increasing the likelihood of voting in the next election believed that TV journalists inform the population, believing the government should serve the people, and voting in the last election. Significant negative antecedents were household income and believing recent elections were unfair. Only two significant variables were present in the model for Georgia. For Georgian Internet users, recent elections that were perceived to be unfair significantly reduced the odds of voting in the next election. On the other hand, the odds for voting in the next election were increased when the Georgian Internet respondent voted in the previous election. Furthermore, the largest and most significant factor for explaining voting participation in the next election among Internet users in the South Caucasus is whether they voted in the last election. When the Internet user did vote in the last election, this increased the odds of voting in the next election by a factor of 31, 8, and 6 for Azerbaijan, Armenian and Georgia respectively, holding all other variables constant. Throughout the South Caucasus, Internet users who perceived that recent elections were unfair significantly decreased the odds of voting in the next election by a factor of .40 to .11.

Discussion

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This study found that factors related to computer use and experience are important when determining which Internet users go online frequently. It confirms previous research on digital citizenship that emphasized the importance of information technology literacy (Shelley et al., 2004; Shulman et al., 2002). Yet, socioeconomic factors did not play a significant role for predicting digital citizenship in Azerbaijan and Georgia. In contrast, years of education were an important factor for Armenia Internet users. An unexpected result is the inverse role of income to frequency of Internet use for Armenia. Lower income users were more likely to be frequent Internet users in Armenia. The differences between the South Caucasus nations may reflect different understanding regarding Internet use. According to Helsper and Gerber (2012) estimates of Internet use need to be adjusted "to be aware of the social, cultural, and historical contexts that can influence the way in which they are structured" (p. 95). For example, Internet use comparisons between nations were most robust when the countries shared linguistic proximity (i.e. English-speaking countries) and to a lesser extent geographic proximity. This finding is very relevant for the South Caucasus where countries have high spatial but low linguistic proximity. It is possible that Internet use is understood differently in Armenia than it is in Georgia or Azerbaijan despite their proximity to each other.

The second part of the analysis concerned the importance of digital citizenship as an explanatory factor for political citizenship. For the South Caucasus, this was not the case. Digital citizenship, understood as every day Internet use, did not have significance in the model when controlling for other important factors that may explain voting participation. With respect to significant antecedents, the overall model was the best fit for Azerbaijan and the worst fit for Georgia. In the Azerbaijan model, all variables moved in the expected direction except for one. Internet users in Azerbaijan who believed in democratic norms such as fair elections and participating in protests were less likely to vote in the next election. In contrast, Internet users who are treated fairly by the government and believe that the TV media serves the people are more likely to vote in the next election. A surprising result is Azeri Internet users who believed TV journalists inform the population were less likely to vote. This might be a case of Internet users who recognize the "façade democracy" in Azerbaijan (Heinrich, 2011) and may believe that the government does inform the population with incorrect or biased information. As a result, they choose not to participate in the election. This may also reflect the success that Azerbaijan has in practicing networked authoritarianism among its citizens (Pearce & Kendzior, 2012).

This study has some limitations to note. One is the problem of missing data which caused a large number of cases of Internet users to be dropped from the logistic regression model. This was particularly true for Azerbaijan. Another limitation is the lack of survey questions inquiring about informative uses of the Internet. Digital citizenship enables political citizenship through the mediating factor of online political information use (Mossberger et al., 2007). Unfortunately, online political information was not able to be included in the digital citizenship model. Likewise, questions that addressed political action were not asked in the survey. Since the South Caucasus lacks mature democracies, voting participation is not an ideal dependent variable for political citizenship. Future examinations of digital and political citizenship in emerging democracies should include online information use and political action variables in the survey design.

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Conclusion

The problem with Mossberger and colleagues (2007) conception of digital citizenship is that it is too closely aligned to problems relating to technological access (Kling, 1999). The authors contend that daily Internet use is an accurate measure of digital citizenship for two reasons. One, going online on a daily basis demonstrates that the digital divide has been bridged most likely indicating that the Internet user has home access. Data shows that daily Internet use is most likely to occur at home. Two, frequent Internet use implies skill development and acquisition of capacities to go online. However, Mossberger et al. do not explain how daily Internet use leads to skill development and capacity building online. The authors assume that daily Internet use can provide the necessary skills and capacity to stimulate political interest and participation and ignore the many social and political factors which contribute to political citizenship. In our opinion, Mossberger and colleagues conception of digital citizenship is too technical and not enough social.

A sociotechnical view is helpful for doing cross-national comparisons of digital citizenship in the South Caucasus. Despite the democratic visions of ICTs, the research presented reveals the power of nation states to shape the ways that ICTs develop within their borders. The move of an Internet user from digital citizenship to political citizenship is not a forgone conclusion. The frequency of Internet use, in and of itself, is not a helpful factor for explaining why a South Caucasus citizen becomes involved politically. It appears this decision is more related to the individual's assessment of whether the country is following democratic principles. Although the Internet has the potential for enabling greater political participation and even regime change (i.e. Arab Spring), it also functions as an authoritarian apparatus that can control and limit the political freedoms of Internet users.

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Table 1

Descriptive Statistics for Internet Users

	Azerbaijan	Armenian	Georgia
Demographics			
Male	65.9%	55.4%	44.4%
Age (mean)	35.3%	35.7%	37.8%
Household Income in US$/month (median)	401-800	251-400	101-250
Years of Education (median)	13	14	14
Internet variables			
Years of Home Internet access (median)	1 year	1 year	1 year
Computer Knowledge (median)	Beginner	Beginner	Intermediate
Frequency of PC use (median)	Once a week or less	Multiple times/week	Multiple times/week
Every day Internet user	18.8%	46.5%	40.7%
Political variables			
Treated Fairly by the Government (median)	Somewhat agree	Somewhat disagree	Somewhat agree
Ability to freely speak	48.5%	55.9%	72.9%
TV journalists inform the population (median)	In the middle	In the middle	In the middle
TV serves interest of people (median)	Neutral	Neutral	Neutral
People should participate in protests (median)	Should not	Should	Neutral
Government is like an employee	29.9%	33.6%	44.9%
Recent elections were unfair	29.0%	38.8%	11.9%
Voted in last election	65.1%	75.1%	70.8%
Will probably participate in next election	81.8%	83.9%	89.3%
Number of Internet Users	455	605	656

Source: Caucasus Barometer 2010 Survey, Caucasus Research Resource Center

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Table 2

Coefficients of Logistic Regression for Predicting Every day Internet Use among Internet Users in Azerbaijan, Armenia, and Georgia

Variables	Azerbaijan		Armenia		Georgia	
	Factor change	S.E.	Factor change	S.E.	Factor change	S.E.
Demographics						
Male	1.462	0.578	0.902	0.372	0.977	0.516
Age	1.017	0.027	0.980	0.014	1.023	0.025
Household Income in US$/month	0.714	0.277	0.726**	0.161	0.820	0.224
Years of Education	1.123	0.146	1.169**	0.081	1.113	0.112
Internet antecedents						
Years of Home Internet access	0.977	0.169	1.664**	0.199	0.928	0.147
Computer Knowledge	2.997**	0.505	1.788***	0.215	2.987***	0.323
Frequency of PC use	4.240***	0.322	2.058***	0.168	8.228***	0.301
Pseudo R^2	0.377		0.282		0.541	
N	107		218		206	

Source: Caucasus Barometer 2010 Survey, Caucasus Research Resource Center
Note: Values shown as odds ratios.
* p<.10, ** p<.05, *** p< .01, two-tailed test

Table 3

Coefficients of Logistic Regression for Predicting Voting Participation among Internet Users in Azerbaijan, Armenia, and Georgia

Variables	Azerbaijan		Armenia		Georgia	
	Factor change	S.E.	Factor change	S.E.	Factor change	S.E.
Demographics						
Male	0.954[*]	0.746	1.367	0.341	1.566	0.546
Age	1.079[**]	0.032	0.982	0.013	0.989	0.020
Household Income in US$/month	1.240	0.288	0.729[**]	0.138	1.259	0.224
Years of Education	1.105	0.152	0.932	0.074	1.113	0.111
Internet antecedents						
Every day Internet user	7.594[*]	1.161	1.010	0.349	1.209	0.544
Political antecedents						
Treated Fairly by the Government	3.649[***]	0.474	0.985	0.226	1.203	0.349
Ability to freely speak	2.175	0.734	1.011	0.347	1.337	0.511
TV journalists inform the population	0.256[***]	0.444	1.543[**]	0.201	1.401	0.437
TV serves interest of people	2.191[**]	0.400	0.913	0.173	1.630	0.393
People should participate in protests	0.550[**]	0.297	0.927	0.142	0.966	0.194
Government is like an employee	1.913	0.768	2.530[***]	0.381	1.053	0.534
Recent elections were unfair	0.115[***]	0.712	0.404[**]	0.368	0.106[***]	0.552
Voted in last election	31.473[***]	0.848	7.914[***]	0.360	5.888[***]	0.531
Pseudo R^2	0.619		0.225		0.407	
N	193		387		267	

Source: Caucasus Barometer 2010 Survey, Caucasus Research Resource Center

Note: Values shown as odds ratios.

[*] p<.10, [**] p<.05, [***] p< .01, two-tailed test

Table 4

Descriptive Statistics for Internet Users

Internet User	Predicted Probability		
	Political	Politi	Georgia
Frequent	65.9%	55.4%	44.4%
Casual	35.3%	35.7%	37.8%
Household Income in US$/month (median)	401-800	251-400	101-250
Years of Education (median)	13	14	14