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CHALLENGES TO INTERNET DEVELOPMENT IN THE SOUTHERN CAUCASUS AND WAYS TO ADDRESS THEM

Georgia, Armenia and Azerbaijan can all be classified as either poor countries or middle-income countries, depending on what standard of measurement you use, and have levels of Internet development that can be expected in countries that are neither rich nor desperately poor. In the global hierarchy of Internet infrastructure, all three countries can be described as third tier; more specifically, their international Internet traffic goes through second-tier countries like Ukraine, Russia and Switzerland on its way to the rest of the world. With the current configuration of fiber optic lines and backup satellite connections, the Caucasus needs those other countries in order to have Internet service, but those countries conversely do not need the Caucasus. Georgia has Internet access through several fiber optic lines to neighboring countries, but Armenia gets its external Internet connection through a single fiber optic line that runs through Georgian and Russian territory on its way to an upstream Ukrainian provider. Azerbaijan's external Internet connection is provided by a satellite link to Switzerland. Armenia and Azerbaijan have access to other fiber optic cables, but they are used only for telephone service because of cost.

In terms of Internet penetration and development of local content, the Caucasus is more developed than Central Asia but less developed than Central Europe. Between five and twenty percent of the population has regular access to the Internet, depending on your definition of regular, with Georgia in the lead. Here it should be noted that Internet users are overwhelmingly concentrated in the capital cities. Our rough estimate is that there are between 5,000 and 10,000 websites on the Internet in each of the three national languages—hopefully at some point Google will develop a tool that will allow us to make precise counts.

The reliability of Internet service in this region has improved significantly in recent years, but costs for end users are still significantly greater than in Western Europe or North America. A 128k leased line, which is a typical connection used by a small business or by an Internet-savvy household, costs between $100 and $200 per month in the capital cities and up to $500 per month in some of the rural regions. By contrast, in the United States and West Europe such connections can often be had for only $10 per month, and with the recent spread of wi-fi service, in many areas it is free. For example, when I visited my sister in Boston in September, I used a free wireless connection provided by one of her neighbors, and the connection was higher speed than the leased line used by the IREX office here in Tbilisi. Dialup service in the Caucasus, which is adequate for e-mail and Web access but no video on a single computer, costs roughly $50 per month in all three countries.

There is not yet a significant online advertising market in the South Caucasus. Aside from the online editions of a few isolated newspapers, the only advertising that exists is banner networks, which are set up to trade traffic without an exchange of payment. Likewise, online retailing is still only in embryonic form, with only a handful of stores doing business online, and a negligible percentage of their sales going through their websites.

Fortunately, all three governments are doing little to impede development of the Internet, unlike their counterparts in Belarus, Turkmenistan and Uzbekistan. As a result, service is of higher quality and cheaper here than in those countries, giving more of the population access to information. The only major complaint that can be made is with regard to the telecoms monopolies that control international Internet connections and internal telephone service. Dismantling these monopolies will result in better service at lower cost.

Aside from the monopolies, there are two main challenges to the further development of the Internet in the South Caucasus, one more general and one more specific to the region. The general problem is a low level of economic development. This is a classic chicken and egg problem. As the number of Internet consumers increases, the cost of service decreases, but that process cannot take place if citizens do not have money to buy computers and connect them to the Internet at current prices. An improving economy in and of itself will go a long way toward addressing this problem, but in the meantime, a comprehensive approach to Internet development seems to work best. What this means is that training in Internet use is of no value if citizens do not have hardware or connectivity, connectivity is useless without hardware and training, and hardware is useless without training and connectivity.

Government programs directed toward Internet development have tended to concentrate on hardware purchases, and sometimes connectivity, but only very rarely have focused on training. A good example of a comprehensive program is the one with which I am involved, the Internet Access and Training Program, or IATP. IATP is a network of 75 Internet access and training centers in 11 countries of Eurasia. We have hardware and connectivity in nearly every province of every country, and provide training to over 5,000 people per month. The training is very output-oriented. For example, intermediate courses in Web design require all participants to arrive on the first day of training with the complete text and photos in paper form that they intend to publish online. By the end of the course, each trainee actually publishes a website either individually or as part of a group. The result here in the Caucasus is that we are hosting 52 gigabytes of local non-commercial Web content, the overwhelming majority of which is in the national languages. This accounts for between five and ten percent of the total Web content in the region.

The problem that is more specific to the Caucasus is the conflict between Armenia and Azerbaijan. Concentrating purely on the Internet-related aspects of the conflict, it is important to note that there is no direct telecommunications connection between these two neighboring countries. It is impossible to make a telephone call from Azerbaijan to Armenia, and an e-mail sent from Yerevan to Baku travels through Ukraine, Russia and Switzerland before reaching its destination. As an outside observer, it seems to me that regardless of who is right and who is wrong in this conflict, it will never be resolved as long as the people of these two great countries cannot or do not communicate with each other. Installing a direct Internet connection across this border, even if it is used merely to hurl insults at each other, will be a good first step.

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