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Does universal access mean equitable access? What an information infrastructure study of a rural Romanian community can tell us

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ABSTRACT PAGE

Title: **Does universal access mean equitable access? What an information infrastructure study of a rural Romanian community can tell us**

Type of Paper: Research paper

Keywords: Information Society, Romania, Ethnography, Digital divide, Universal access, Rural areas

Purpose
The paper presents the findings from a May 2007 field study in Viscri, a village in Transylvania, Romania.

Design/methodology/approach
Researchers interviewed villagers to investigate the current state of Information and Communication Technology (ICT) development in the village. Ethnographic methods were used to collect data and to assess villagers' information needs. The information landscape in Viscri is presented and analyzed in local and national contexts. The national policies shaping Romania's emerging Information Society are discussed and literature on the impact of ICT development at the community level is also reviewed.

Findings
Romania's ICT policy goal of universal access needs to be better targeted. In Viscri, few adults showed interest in learning about or using computers. However, villagers understood that a good education that included computer education was necessary to assure better economic futures for their children. In light of the demographics, social conditions and cultural beliefs in Viscri, the most appropriate access point for ICT initiatives there should be first programs aimed at school-aged children.

Research limitations/implications
The paper describes and discusses the information needs of one village. Further field investigation at the community level is necessary to discern the relevance of the findings to other villages both in Romania and elsewhere.

Practical implications
Further research, especially in the most underserved communities, will help to identify ways in which the Information Society and related policies can be more equitably implemented in Romania. What is learned in Romania can have implications for ITC development policy elsewhere.

Originality/value
The paper assesses critically the rhetoric of universal access. If universal access is going to remain an ICT policy goal, more research is needed at the community level in order to ensure that policy emphasis on access for all actually translates into equitable, meaningful ICT access for underserved communities.

AUTHOR PAGE

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Does universal access mean equitable access?

What an information infrastructure study of a rural Romanian community can tell us

Only 30% of the people in Eastern Europe believe they live better today than in 1989.
-"Life in Transition" 2007 survey, European Bank of for Reconstruction and Development

I. Introduction

Romania became a member of the European Union (EU) in January 2007. In 2001, the Romanian Government formed the Ministry of Communications and Information Technology (MCTI) in preparation for EU membership candidacy (European Communities, n.d.). The MCTI's primary initiative was to articulate a plan for the development of the Information Society throughout Romania based on various eEurope strategic planning documents (Ministry of Communications and Information Technology [MCTI], 2002). The resulting document, entitled the *National Strategy for the New Economy and the Implementation of the Information Society*, has one major goal: the development of the Information Society (IS) in Romania that will ensure universal, affordable access to information and communication technologies (ICTs) for every citizen in the emerging information-based economy (MCTI, 2002).

While the intent of the policy is to bridge the digital divide in Romania, making affordable, universal e-inclusion a reality for every Romanian citizen represents a Herculean task. Indeed, providing universal access to ICTs is a challenge even for more developed nations. In Romania roughly 46% of the population lives in remote rural villages with a high rate of poverty (United Nations, 2002). These are arguably the individuals most affected by the digital divide. Many of these villages operate on a subsistence-level economy and have a limited infrastructure. Village residents lack indoor plumbing, paved roads and access to basic medical care in addition to their lack of access to ICTs. While the policies may be in place, the reality "on the ground" in rural areas of Romania shows few signs that attempts to implement the Information Society in the country have had any success.

As part of a research program through Ball State University, a group of student researchers visited Viscri, Romania in May 2007. Located in Transylvania, the rural village of Viscri illustrates some of the more challenging aspects of implementing the Information Society in Romania as the country continues to develop within the EU.

During this site visit, the current state of ICT development in Viscri was surveyed as part of an ethnographic study of this community. The findings in Viscri make it clear that additional research, including ethnographic research, is needed throughout underserved communities in Romania. This May study visit led to the conclusion that the existing IS policy goals that stress equitable access and inclusion for all need to be reevaluated and retargeted.

In a village like Viscri, where resources are the most limited and ICT infrastructure is nearly non-existent, research findings support the argument that a better approach to ICT implementation would be to target elementary and secondary school students with a first wave of ICT initiatives. Such initiatives would also work in tandem with Romania's development goals of increasing elementary school retention rates (United Nations, n.d.; United Nations Country Team in Romania [UNCTR], 2003). Additionally, alternative models of development need to be considered in order to keep Romania's rural villages economically viable as the country moves to a free-market, knowledge-based economy. These models must address the gaps between policy and implementation at the village level. Employment opportunities are scarce in villages such as Viscri and younger residents must often leave to find jobs or even an education elsewhere. Such outmigration from rural villages impacts both the quality of life and the economic base of villages like Viscri. In such communities, where needs are dire, resources are limited and young people are being left behind, the main ICT initiative of the Romanian government should be to narrow their focus on providing access to ICT and digital literacy initiatives to school-age children first.

II. Literature Review

The body of literature on the Information Society is by necessity multidisciplinary in nature. For the purposes of this research, searches were limited to articles in the social sciences (mainly library and information science) that deal directly with Romania and Eastern Europe. Some attention was also paid to the literature focusing on Information Society development and ICT implementation in under-developed nations, rural communities or indigenous populations. Articles discussed here are from 2002-2007. A brief review of policy documents is presented that places current IS policy in an historical context, followed by a summary of literature that suggests ways in which members of more marginalized communities can be better involved in their own ICT development

projects. The literature concludes that the best way to serve rural communities is to approach them directly and to design solutions that meet community needs on the local level.

Information Society Policy: A closed loop tied to the past

Romania's National Strategy for the New Economy and the Implementation of the Information Society (MCTI, 2002) is, like most policy documents, general and over-reaching in its aims and goals. The MCTI (2002) states that the development of the information society is not an end in itself but that it is "an essential component of the political and economic programme for development and a major condition for integration of Romania in the Euro-Atlantic structures" (p. 4). In other words, Romania was required to adopt the IS policy established by the European Union in order to be eligible for EU candidacy. The EU's policy goals for the information society were first outlined in the document *e-Europe: An Information Society for All* (European Union [EU], 2000). This document states the key objectives of the IS in Europe:

- Bringing every citizen, home and school, every business and administration, into the digital age and online.
- Creating a digitally literate Europe, supported by an entrepreneurial culture ready to finance and develop new ideas.
- Ensuring the whole process is socially inclusive, builds consumer trust and strengthens social cohesion.

(EU, 2000, Why eEurope Now section, para. 4)

On its path towards EU membership, Romania also adopted various United Nations (UN) policies such as the Millennium Development Goals (United Nations [UN], n.d.) and the United Nations Development Assistance Framework (UN, 2003). The UN documents outline a number of ICT goals that stress universal access. A review of the Romanian, EU and UN policy documents finds them so similar that one has to wonder about how generic the ICT policy development process is. For instance, all these policy documents measure success of ICT implementation, at least in part, by the rate of penetration of telephone lines and mobile phones per 100 inhabitants and by the rate of personal computer ownership per 100 inhabitants (EU, 2000, 2005; MCTI, 2002; UN, 2003, n.d.). Not only in Romania but internationally, such benchmarks often inadvertently skew the success rates of the IS and

ICT initiatives, which has the effect of leaving the most vulnerable communities and citizens behind (Hawkins, 2005; Howard, 2007; Mariscal, 2005; Wade, 2002). As policy makers continue to argue for universal access based on this false sense of success, it also becomes less likely that research will be carried out to evaluate whether such policies are being implemented effectively.

Beyond providing inadequate indicators for success, that the major policy documents reference each other so closely suggests that these documents present a closed loop of policy goals, initiatives and benchmarks. It is not unreasonable to conclude that such self-referential policy would be unable to provide adequate checks and balances. This also leaves open the question of the extent to which these documents' indicators or statements regarding their success (reach) are meaningful. Nor do these documents offer much in the way of specific, appropriate solutions for individual communities. To what extent policy of this kind can lead to successful outcomes in real-life situations needs to be questioned because policy statements seldom seem to be informed by the day-to-day experience of ordinary citizens whose lives the policy is intended to improve.

In addition to being out-of-touch, ICT policy that argues for universal access and inclusion for all is also outdated. A report by the Center for Democracy and Technology ([CDT], 2005) places the universal service obligation for telephone service in historical context, tracing its roots to fundamental, universal human rights principles. CDT (2005) points to the 1948 Universal Declaration of Human Rights which states that everyone has the right to freedom of expression through any media (Sources of the Universal Service Obligation section, para. 3). This emphasis on "any media" eventually led to the development of universal access to telecommunications as a public policy goal. This reduction, i.e. from any media to telecommunications, can be most clearly seen in a 1984 report published by the Independent Commission for Worldwide Telecommunications Development entitled "The Missing Link," also called the Maitland Report (CDT, 2005). This report cited as an objective that "by the early part of the next century virtually the whole of mankind should be brought within easy reach of a telephone" (Independent Commission for Worldwide Telecommunications Development, as cited in CDT, 2005, Sources of the Universal Service Obligation, para. 2). This telecommunications initiative eventually led to the policy goal of one telephone per 100 people – a measure that incorrectly equates penetration rates of the telephone with ICT policy success (CDT, 2005).

Further, the development goal of universal access for telephone service set in 1984 has yet to be achieved almost 25 years later. This suggests that a different approach towards setting policy goals must be considered and this is especially true when one compares the skill set required to use a computer to that required to use a telephone. Nevertheless, major governments and international bodies continue to use goals and benchmarks derived from telecommunication policy to assess the development of the larger, more complex Information Society.

Community: Placing the Information Society in context

Much of the discussion about the development and implementation of the Information Society tends to be global or national in nature (Littrell et al., 2006). Given this, the question remains of how to support a local or community approach towards ICT development – one that both addresses the unique needs of the community and actively involves community members in the development process (Mariscal, 2005; Neelameghan and Chester, 2007; Oxendine et al., 2003; Whipple and Nyce, 2007). Focusing on development at the community level helps avoid the problem of implementing technology simply for "the Information Society's sake." It can also allow solutions to be developed and implemented that will be both useful to and used by the communities they were intended to serve.

To study Romania, it is important to first survey what has been written about the development of the Information Society throughout the country as a whole. Two articles by Dragulanescu (2002a, 2002b) use demographics and statistics to give an overview of Romania's information society and digital divide. Dragulanescu (2002b) provides a history of the development of information science in Romania, including a SWOT (Strengths-Weaknesses-Opportunities-Threats) analysis of the Scientific and Technical Information (STI) System – the legacy ICT infrastructure of the former Communist regime. Dragulanescu's research is a reminder that despite the ICT challenges Romania faces, it is not in the technological stone-age. Although far from perfect, the existing ICT infrastructure is based on a technological system with a history. Romania has relatively strong ICT assets and the country is not without individuals competent in computer science and related disciplines (Dragulanescu, 2002b). In fact, Romania is aware that it suffers from "brain drain" because the country's most competent ICT professionals

often leave Romania to take jobs elsewhere (MCTI, 2002). Dragulanescu (2002a) argues that in order for Romania to be successful in overcoming its digital divide it has to build strong philanthropic partnerships based on "mutual trust, mutually desired objectives and mutual understanding. [Further he adds] 'Have nots' should not be seen as dishonest, unskilled, uneducated, or even tricky people asking for assistance and being unable to offer something in exchange" (p. 150).

As Dragulanescu (2002a) suggests, it is easy to make false assumptions about the rural communities in Romania based on the statistical and demographic data that purports to describe them. The quantitative data that exists often paints a dire picture in terms of poverty rates, lack of infrastructure, low levels of literacy and education, and disparities along age and gender lines. An initial reaction to this data might be to try implement policy that drives ICT deployment "more, better and faster" so as to even out the ICT playing field. However the question remains as to what extent numbers of this sort actually represent the life experience of rural residents. For this reason, Whipple and Nyce (2007) argue for the use of ethnography in community analysis to "make sense of (the demographic) data" (p. 703). Whipple's and Nyce's (2007) findings, along with those of Littrell et al. (2006), illustrate the importance of this kind of sense-making. What these authors learned was not limited simply to how information was disseminated to and used by residents in one rural community in Romania. Their use of ethnography allowed them to understand why ICT infrastructure was weak in the area, the limited role the library played in the village and some of the political, socio-economic and cultural forces at play locally and nationally that informed daily life in the village. In essence "the devil is in the details." One effective way to get at those details is to use an appropriate research methodology and to spend time in a community interacting directly with members of that community.

This is especially relevant because in many cases a digital divide in any one village or region is reflective of the greater economic and social divides or inequalities within a population (Hawkins, 2005; Ono and Zavodny, 2007). It is particularly important that ICTs not be presented as panaceas that can fix all the social and economic ills of a community or society (Hawkins, 2003; Wade, 2002). What is required instead is a context-sensitive approach towards ICT implementation – one which "provides a useful analytical lens that identifies the potential benefits of (ICT) access and in doing so offers useful information for the design of a policy that integrates the needs and

restraints of the users" (Mariscal, 2005, Social Capital section, para. 1). The successful implementation of Information Society initiatives anywhere in the world will hinge on the ability of ICT designers/developers to take into account existing cultural values and norms as well as the region's political and social structures. In particular, as Oxendine, et al. (2003) conclude from their research, the success of community ICT projects is often related directly to the level of trust between the political elite and the general population that exists in the community before the project is implemented.

It is even possible the needs of a particular community might not require ICTs as a solution, at least in the short-term (Wade, 2002). Neelameghan and Chester (2007) describe an approach to knowledge management within indigenous communities that is not technology-centered. The first step in the transition to the Information Society for members of marginalized communities is for them to realize that they possess information that is valuable in the greater world context (Neelameghan and Chester, 2007). Without this awareness, members of such communities often have the perception that they cannot and will not benefit from ICT-related developments. Nor do they often feel that they can participate in and contribute to their nation's socio-economic development (Neelameghan and Chester, 2007, p. 80). In other words, the first step in bridging the digital divide may not involve technology at all. It may simply be making marginalized communities aware of the value their indigenous knowledge has which in turn allows them to understand and place themselves into the greater Information Society.

III. Method

Qualitative data was collected through 35 interviews conducted over two and half weeks in May 2007. Drs. James M. Nyce and Gail Bader, from Ball State University's Department of Anthropology, brought a team of twelve student researchers to Viscri to introduce them to qualitative field research. This community study focused on information/knowledge use in post- and pre-revolution Romania and is a continuation of research carried out in Romania since 2004 with other groups of students (see Whipple and Nyce, 2007; Littrell, et al., 2006). The 2007 group included graduate and undergraduate anthropology students from Ball State University and the University of Connecticut, Storrs, and Library and Information Science students from Drexel University and the University of

Illinois at Urbana-Champaign. The group's three translators[1], two students and a tour guide were all native Romanian speakers who had studied English at university. The last had worked with Bader, Nyce and their students in a 2005 community study of Hoteni, a village in Maramureş County, Romania.

The team broke into small groups in order to interview a representative cross section of community members. Informant selection took account of demographic, ethnic, social and economic variables. Care was taken to include not only community leaders, such as the mayor (the main town leader – known locally as the Town Hall Representative), educators, local entrepreneurs, the nurse, and members of the clergy, but also community members of various ethnicities and economic statuses. Interviews were set up by the tour guide, sometimes with the assistance of the mayor. Snowballing also led to other informants and interviews. Some village residents approached group members directly to ask that they be interviewed, too. Interviews were in-depth, often lasting more than one hour per informant.

When permitted by informants, interviews were recorded and transcripts produced. Field notes were made by all members of the research team to record what was heard during interviews as well as to note observations of daily village life. Field notes were also taken while traveling to other parts of Romania. For example, the group spent two days in Hoteni, a Maramureş village some 300 km north of Viscri, in order to compare village life there with that in Viscri. Whenever possible, researchers engaged in informal conversations about life in Romania with villagers in Viscri and elsewhere. When permission was granted, significant aspects of village life were recorded by members of the team using still photos and video. While in the field, the group met at least once per day for debriefing on the day's activities and findings. This allowed the research plan and goals to be revised based on what was learned each day from informants and observations. Researchers arrived in Viscri with a basic knowledge of the region and village. Prior reading had been done on the history of the Roma in Transylvania (Abraham, Vădescu and Chelcea, 1995) and the cultural heritage of Romania (Pop and Porumb, 2004). The group also met three times to discuss readings that helped analytically anchor this research (Carrier, 1992; Handler and Linnekin, 1984; Robotham, 1997).

IV. Village history and background

Viscri is a well-preserved, historically Saxon village located on a rough unpaved road. The nearest village, Bunești, is some eight kilometers away and the closest city, Rupea, is approximately 45 km away. Viscri has a population of roughly 450 people, and no more than thirty are Saxon. The majority of village residents identify themselves as Romanian but a few families identify themselves as Roma or gypsies. These population figures, from the 2002 national census figures, were provided by Viscri's mayor and were confirmed by other villagers. The only point of contention seems to be the number of village families identified as Romanian and Roma, as several community members explained that the majority of families in the Viscri today are Roma but that they just call themselves Romanian. Because the Roma are often discriminated against, this is not an uncommon phenomenon today throughout Romania today (Abraham, Vadescu and Chelcea, 1995).

What distinguished Viscri from other Romanian villages was the extent to which it was able to exploit its identity as a Saxon village. Transylvanian Saxons are descended from Germans who first arrived in Transylvania during the 12th/13th centuries. These Germans were invited by medieval Hungarian kings to colonize the area, increase its population and strengthen its military defenses. The Saxons brought with them strong abilities as tradesmen, in light manufacture, as farmers and as merchants, which facilitated the success of their settlements and allowed them to be relatively self-sufficient economically and politically up until the twentieth century. One result of this was that the Saxons and Hungarians were able to enforce a political and socio-cultural hegemony over the native Romanian population for centuries.

During the Middle Ages the Saxons built fortified churches for protection and defense against Ottoman and Tatar invaders. Viscri has survived with its fortified church and much of its traditional layout and architecture intact. Under the Communist systemization program, many villages faced the threat of being bulldozed in order to remove their rural populations to urban/industrial centers in the name of "progress." Though this plan ended with the 1989 revolution, it provided the outside world with the impetus to try to help Romania preserve its unique architectural traditions – among them Saxon villages like Viscri. Such interest helped Viscri's church to gain its designation as a UNESCO World Heritage Site in 1993.

The Saxon population in the region began to diminish after World War II, as many Saxons were sent off to work in labor camps in the Soviet Union. The post-war Romanian government treated both Hungarians and Saxons

as Nazi collaborators, which led to the first large exodus of Saxons back to Germany. This also helped break the hold these two ethnic groups had on power for many centuries in Transylvania. A second large exodus of the Saxons back to Germany occurred after the fall of Ceaucesceau in 1989. This was spurred at least in part by years of oppression including the loss of property under the Communist regime. In Viscri, these Saxon emigrations to Germany left many homes abandoned, which squatters, often Roma families, occupy today. In Viscri and throughout Romania, families and individuals are still working to regain property lost to them during the Communist regime. The result is that throughout Romania and specifically in Viscri many residents' property rights have yet to be resolved. At least one Saxon family in Viscri spoke about a decade-long struggle to reclaim farmlands that still continues.

V. Findings

Viscri Today

A central issue for the village today is how to maintain its Saxon heritage and culture when less than seven percent of its population is of Saxon descent. Viscri's economy is based mainly on subsistence farming and barter, with a low rate of home ownership and few job prospects in the village itself. Most families own a few animals and have a small yard where they grow some crops for food. A lack of capital, labor and disputed land rights seem to be the main reasons why villagers do not practice more intensive forms of agriculture. Those with a surplus of animal products such as milk, meat, and eggs rely on the sale of their products for cash income. However, members of the community fear that European Union agricultural regulations (Romania became a member in January 2007) will eventually prohibit the sale of these products. For instance, several villagers expressed concern over EU regulations that require cows to be milked by machine and that milk be pasteurized before it is sold. One informant explained that "(Residents) cannot change their stables (to conform to) European regulations because they don't have the money" (mayor, interview, 11 May 2007). Many village residents also do not believe that whatever funds the Romanian government or the EU says they will set aside to aid famers will actually reach them.

EU regulations will change life for business owners and residents in other ways. As one local tradesman, a carpenter, explained, "The European rules were applied very suddenly in Romania, and not step-by-step like in the other countries. And we will get to the point where we live illegally in our homes because we won't have the money

to restore them according to European rules" (carpenter, interview, 13 May 2007). He was also concerned about the requirements for compulsory insurance coverage for floods, earthquakes and landslides, none of which are relevant to Viscri. He also believed that insurance coverage would be difficult to obtain because "insurance companies won't insure a house that is not built (according to) European rules" (carpenter, interview, May 13, 2007). The wool mill in Viscri was one of the few local businesses actually providing regular employment. An employee explained how the mill needs to be renovated to comply with the new EU regulations, but that "(the mill owner) tried to get the information about what she actually has to change and she could not find out very much" (wool mill director, interview, 14 May 2007). Residents did not know what the new EU rules were and their inability to learn the details of the new regulations concerned them and caused them to fear that they would not be able to afford to make the required changes.

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Villagers made it clear that job opportunities are scarce in Viscri, which means that adult children of residents often have to move abroad to find work. One resident explained that his children "would never come back to Romania, not this village because they would have no work here" (blacksmith, interview, 12 May 2007). Three NGOs are active in the region and they do provide limited opportunities for seasonal or part-time work. These jobs either pay benefits only when one is employed or provide no benefits at all. Representatives from each of the NGOs visited the community several times during the period of the study visit. These NGOs focus on different areas: the historical renovation of the facades of village houses; the production and sale of handicrafts; and the sustainable development of locally produced food products for sale as specialty products in Europe. In addition to providing some job training and seasonal work, the NGOs attempt to stimulate tourism in the region, which they hope will develop further support for their activities and projects.

A few families have been able to take advantage of new economic opportunities in Viscri. They run guest houses and prepare meals for tourists who come to visit Viscri and its fortified church. A German couple (not Saxon) who relocated to Viscri opened the wool mill, which employs one woman full-time and two others part-time. The mill makes yarn and also wool batting that is exported to Europe to be used as natural insulation in green building projects. Yarn produced by the mill is also used by village women who are members of the sock cooperative, which allows them to make knitted goods for sale in Viscri as well as throughout Romania and other parts of Europe. These projects have some Internet exposure and in Viscri were advertised to residents mainly by

word of mouth and posters hung up in the village. These initiatives provided village residents with training and other assistance and also allowed them to earn a small cash income and gain job skills. For example, women who worked for the sock cooperative earned 10-12 Euros per month. None of these efforts provided Viscri residents with steady work or a regular income.

Village residents described the difficulties of moving from Communism to a free-market economy. During Communist times, all members of the community were taken care of from cradle to grave. One guest house owner explained that, "In the Communist regime, we all had a place to work. We worked on the collective farm and we had food to put on our tables. So we considered ourselves rich peasants but afterward [after the revolution] we lost our source of income and we became poor peasants" (guest house owner, interview, 17 May 2007). In addition to jobs and food, the Communist government also provided socialized health care and a pension. While life under Communism was harsh, it offered a social stability that no longer seems to exist in today's free market economy. The result is that members of the community born and raised under Communism often have difficulty adapting to today's economy. This was in part because villagers lacked capital. But it was also because members of the community lacked confidence and competence in an economic and cultural system (capitalism) that most Europeans and North Americans take for granted. As the guest house owner said, "We had to reinvent ourselves and create our own place to work and the bad thing is that all of the young people in the village left because there was nothing they could do here" (guest house owner, interview, 17 May 2007).

Viscri had limited basic infrastructure. Electricity arrived late in the village (i.e., the early 1960s). Today, only a handful of village houses have indoor plumbing, and these are the guesthouses that have been recently renovated for tourists. With the recent introduction of plastic packaging (mainly bottles) into the village, trash collection became more of an issue. (Before this, Viscri produced very little trash). Village-wide trash collection was finally established in the 1980s. However most families could not pay the monthly fee (estimated at a few dollars per month) and the service was soon discontinued. Other basic services, like public education and medical care, are also limited. A village nurse visits Viscri twice a week, and the nearest hospital is a 45-minute drive away by car over very rough roads. Only primary education -- kindergarten to fourth grade -- is available in Viscri. Few children continue their education beyond what is available in the village. Public transportation is nonexistent. Members of the community cannot rely on the region's ambulance service because the Viscri's unpaved access road is often

impassable. Villagers travel by foot or by horse and cart. When necessary, residents barter with the few villagers who actually own cars for rides or to haul things home.

The Information Landscape in Viscri

The villagers rely mainly on Romanian television and local newspapers for news about current events outside of the village. Many of the village homes had satellite dishes but it turned out that satellite service had been provided by a vendor for free for the first three months. Few residents could afford the monthly fee (estimated at roughly $30 US), so service was discontinued after the free trial period ended. Villagers also get information from friends or family members living elsewhere by telephone or cell phone. The mayor said that she made residents aware of events, meetings and job opportunities in Viscri by posting signs in a central location or by having the town crier ride through the village and make announcements. Few of the individuals interviewed, however, could remember the mayor ever doing this. Two telephone lines serviced the village through the post office but very few homes had a telephone. Some village residents had cell phones but few were observed actually using cell phones, perhaps because mobile service was often not available in Viscri.

Field observations, interview data and anecdotal reports suggested a high rate of illiteracy or low reading ability. Village school teachers said that students' parents often had difficulty helping their children with homework because they themselves had little education. Viscri also had no public library or community center. Community activities took place in the village's two churches. The Lutheran church attended by the Saxons held services once or twice a month. This church was led by an itinerant German minister who traveled around the region holding services in different Saxon villages. Most villagers belonged to Viscri's Orthodox Church, led by a young priest and his wife who had come to the village in August, 2006.

The Orthodox priest and his wife were interested in establishing a community center for Viscri's children that would include computers with Internet access. He estimated that the project would cost approximately 100,000 Euros. This figure included startup/renovation costs and funds to keep the center open for ten years. In the proposal the priest had written for the center he argued that such a center would provide much-needed computer access for the village's children and families. The proposed community center would also be a place where Viscri's children

could get help with their schoolwork. He saw the center as a place that would connect the village children with what is going on in the world. For Viscri families today, he said:

> The major problem is, "What will we eat tomorrow? What can we do?" The families usually take the children to work (in the field) immediately after school . . . and (the children) have no time to do homework, to study extra and their only motivation to go to school is the little piece of bread and milk that they get there. Also, the allocation, a sum of money that they get monthly for the student." (Orthodox priest, interview, 12 May 2007).

In the guesthouse where the research group stayed, there was a small library that included books and publications about Viscri and Saxon Transylvania. Items were in Romanian, German, French and English and included magazine articles, newspaper clippings, pamphlets, and Romanian and German government documents. There were also some annual reports of the NGOs active in the region, which included the 2001 Mihai Eminescu Trust annual report (Wilkie, 2001) that reported that "the Trust is currently refurbishing the school in Viscri and setting up a new library" (p. 19).

Six years later, little evidence was found of improvements at the school. Teachers said that the school's roof and fence had been repaired by the Trust and that asphalt had been put down for an outdoor play area. The school building still did not have running water or indoor plumbing. As for the school library, most of the books had been acquired (inventory stamped) during the Communist era. These books were kept in a small bookshelf with glass doors in a room that was off-limits to students. In the library there were approximately a dozen new paperback books in German and one in English. These books were used by a member of the community who had volunteered to teach students German, something which was not part of the school's regular curriculum. The school in Buneşti, a larger, nearby village, had a bigger library with one computer, but Viscri children, teachers said, were not able to take advantage of the resources in Buneşti.

The situation in Viscri presented not so much a digital divide as a digital chasm. Few of the village residents could afford cell phones, and only three families owned computers with Internet access (the mayor, a shopkeeper and a German couple who had recently moved to Viscri). The Orthodox priest and his wife also owned a computer, but they did not have Internet access at home. They accessed the Internet on their weekly visits to Sibiu, a city approximately 100 km from Viscri where they were attending graduate courses. In the village, Internet access

was provided by dial-up service, usually with a Global System for Mobile (GSM) cell phone used as a modem. While many residents had heard of computers or the Internet, very few had actually seen a computer, let alone had used one. The adults interviewed generally showed little interest in owning or learning how to use a computer or the Internet. On several occasions, when informants were asked to describe what they thought the Internet was, they said it was something like a radio or television. One village woman, a member of the sock cooperative, said that she did not really know what the Internet was, "but if it could help them sell more (woolen goods), then the village should have more Internet" (interview with sock cooperative member, 18 May 2008). The study group's translators eventually suggested that the researchers no longer ask about the Internet because these questions made Viscri residents uncomfortable.

When village residents who had children were asked about computers, nearly all of them said their children needed to be learning about computers in school. The school principal was one of the few residents in the process of buying a computer. She had calculated that if she purchased and sold twenty two lambs after six months, she would have enough cash to purchase a new desktop computer. Even without taking into account the differences in annual salaries between Romania and the US, computer prices in Romania are high. The Viscri school principal would have to pay roughly the equivalent of $1,200 US for a computer that might sell new today in the United States for $400-500 US. Another resident said that if he was to buy a computer he most likely would purchase a used one for the equivalent of $200-300 US – still an amount that very few Viscri families could afford. The school principal's main reason for wanting a computer, in addition to the fact that it would make her work easier, was that her daughter who is in the first grade had heard about Internet in school and started to ask her more about it.

Education

Elementary education is provided from kindergarten through fourth grade at the school in Viscri. The school staff is comprised of one principal, who teaches second and fourth grades, and one teacher, responsible for first and third grades. The principal at the primary school said some village children continue classes through eighth grade in Bunești, some 8 km away. One local NGO had raised funds for a "school bus" to transport students to Bunești, but the unpaved road often makes travel difficult, especially in winter months. The principal estimated that maybe one or two of the eight to twelve students in each fourth grade class go on to high school. She explained that

the children have to stay at home to help their families farm or to look after the animals that help support their families. The principal said that more students used to be able to continue their education through high school, but that now, parents "don't have any kind of material possibilities to send (their children) further on in school" (elementary school principal, interview, 21 May 2007). Most Viscri families could not afford to have their children attend high school or college because students would have to live away from home in a larger town to attend secondary school or university.

Both the teacher and the school principal expressed frustration with the lack of resources available to the students in Viscri. The Romanian government, they said, had promised to provide a computer for every school in the country, even those in rural communities, but this promise has yet to be fulfilled. They also believed they needed more than one computer to educate the thirty five children who attend the school. The teacher, new to the school, pointed out, "The kids from the rural areas like (Viscri) when they want to go to study in a town or a bigger village with computers, they are at a disadvantage because of (their lack of digital literacy and foreign language skills) and they have practically a handicap" (school teacher, interview, 14 May 2007).When the village schoolteachers were asked what they would like their students to have to give them a better education, they listed computers, craft materials (like construction paper, crayons, paint), sports equipment (a soccer ball, for example), and running water, so the children could practice better hygiene practices while at school.

VI. Analysis

At the outset, Viscri seemed to be a typical example of what the literature terms a digital divide (Hawkins, 2005). Viscri certainly has a limited ICT infrastructure, with only two telephone lines, unreliable cell phone service, few computers, little Internet access, and no village library. But Viscri's information needs pale in comparison to the other development challenges it faces: only a single unpaved access road leads to the village; public transportation is lacking; local medical services are limited; homes, except for tourist guesthouses, lack indoor plumbing; and residents do not own their homes. Most village families are today Roma. These families rarely have formal lease agreements with the Saxons who own the Viscri houses and farms in which they live. Unlike in other Transylvanian

villages, land, tenant and property rights have not yet been resolved in Viscri. All of these factors pose major developmental and social challenges for the community.

The main source of cash income in Viscri in May of 2007 came from tourism, with residents running guest houses, cooking for visitors, making souvenirs or working on NGO projects that restored the village's historical Saxon homes. The two most active NGOs in Viscri focused on projects related to tourism. While there was some trickle down effect (NGO-sponsored jobs provided some training and seasonal employment), these NGOs worked to repair the facades, not the interiors, of the village's Saxon houses. NGO representatives also expressed concern over Viscri's power lines, which were strung up on concrete pylons throughout the village. The presence of these power lines, villagers were told, ruined the tourists' pictures. These NGOs' concerns were reiterated at a public conference held in Viscri in May, 2007 that was attended by members of the research group. Presentations had titles such as, "Maintain Your Village." This lecture by a German architect described at length why PVC windows (a less expensive alternative to more historically accurate, hand made wooden windows) were an unacceptable way for the Viscri residents to repair their houses. Another of the day's presentation explained to village residents the historical importance of their "Saxon heritage" and stressed to them the necessity of working together to restore village buildings. None of the day's presentation seemed to take into account the fact that few of Viscri's residents today are Saxon or even own the properties they were being encouraged to restore.

It seems that these two NGOs are working to return Viscri to some romanticized Saxon past. The intention seems to be to reproduce in Viscri for tourists the appearance of an idyllic, historical Saxon village. The result is the work that the two NGOs support in the village largely consists of restoring and preserving the facades of the village's buildings.[2] Most of the homes that have been restored seem to be ones that are still owned by the village's remaining Saxon residents. This has increased the value of these properties at little cost or risk to their owners. The benefits the majority of the residents, none of them Saxon, have received from these restoration efforts is open to debate since most of these villagers have neither the capital nor competence to profit from tourism. This situation also fosters a high level of mistrust and suspicion between the majority of (non-Saxon) residents and the (Saxon) minority who still hold power in the village.

Such a high level of mistrust generally works to the detriment of the long-term success of ICT development projects in a community (Oxendine et al., 2003). Community development initiatives, especially ICT and IS initiatives, in Transylvania often rely on the assistance of NGOs and foreign-based philanthropy (Dragulanescu, 2002a). The NGOs and other organizations active in Viscri need to structure their programs with greater awareness of the communities they propose to help. They must also proceed responsibly so that Viscri and villages like it can achieve a balanced level of development – one that would not just preserve the past but would help build an economically relevant and viable future for all of Viscri's residents.

The digital divide discussed in the policy and research literature is often just one expression of more important socio-economic divisions (Ono and Zavodny, 2007; Wade, 2002). This clearly is the case in Viscri. Nevertheless ICT development agendas often treat ICTs as a developmental panacea, one that when deployed will reduce, if not remove, socio-economic inequity in any community (Hawkins, 2005; Ono and Zavodny, 2007; Wade, 2002). For an ICT initiative to be successful, it must be carried out in conjunction with other community development projects (Neelameghan and Chester, 2007; Oxendine et al., 2003). In rural Romania at least, no ICT project alone, no matter how well funded or designed, can produce the kind of socio-economic results its advocates hope for. Nor can its success be measured just by meeting or exceeding any kind of technological baseline or quota. In short, for an ICT initiative to make the kind of improvements that would be meaningful to Viscri residents, it would also have to make the village more economically relevant in Romania's new free-market, knowledge-based economy.

To simply provide Viscri residents with computer access, whether in their homes or at some central access point, would do little good. First, most adults showed little interest in digital technology. Second, it is hard to believe that in Viscri ICT would provide the kind of economic advantages its proponents believe it will bring to any community. This raises questions about plans such as the one being carried out by the International Research and Exchanges Board (IREX, n.d.), funded by the Bill and Melinda Gates Foundation, to put computers in every public library in Romania. In Viscri, village residents had to work hard all day just to meet basic needs. As the Orthodox Priest pointed out, what Viscri residents worry about most is, "How they will survive until tomorrow?" (Orthodox Priest, interview, 12 May 2007). In short, whether adult education in basic digital literacy would be welcomed or successful in Romanian villages like Viscri remains an open question. Most of the digital initiatives currently being

pursued in Romania (IREX, n.d.; eRomania, 2003) seem to overlook the fact that in many small villages, as was the case in Viscri, there are already some residents who use computers and the Internet. Rural ICT initiatives do not appear to target these early adopters who are often already acting as digital gatekeepers for the rest of the community (Neelameghan and Chester, 2007).

Based on the demographics, social conditions and cultural beliefs found in Viscri, the best entry point for the successful implementation of an ICT initiative would be an initiative that focuses on school-aged children first. The students were already enrolled in a school that was struggling and had few resources or supplies. In addition, while parents did not necessarily express an interest in learning about or using computers themselves (nor did they indicate they would have the time to do so even if they wanted to), nearly all of the parents wanted their children to get a better education so that they could live a better life. These parents understood that such an education should require their children to learn how to use computers in school. Establishing a computer center at Viscri's elementary school would not only provide the opportunity for digital literacy education, it would also help the school overcome its lack of teaching and library materials by providing access to Internet resources. Additionally, the presence of computers and the Internet at village schools could eventually allow students to attend the upper grades through distance-learning initiatives. It could also help them achieve greater success if they go on to school in a larger town or city. Access to digital resources in the local school could also increase student retention rates, one of the goals found in the United Nations Development Assistance Framework (UNCTR, 2003) and in the Millennium Development Goals (UN, n.d.).

There is literature that suggests early exposure to digital resources results in greater competence and expert use over a lifetime (Cleary, Pierce and Trauth, 2006). Digital access that facilitates educational opportunities for children would make any ICT initiative more attractive to residents in communities like Viscri. The focus on digital literacy for children could also have positive benefits for their families. In their research into the information behavior of migrant Hispanic workers in the U.S., Fisher, et al. (2004) describe how the children of migrant families are usually the first family members to gain competency with the English language. The result is that they become primary information providers for their families. In a similar way, improving a child's competency in digital literacy and then having them bringing their interest and knowledge into the home could have more positive effects than

exposing their parents directly to computers and the Internet. If the goal is truly "digital access for all," this kind of approach could have more a chance of success especially in communities like Viscri.

VII. Conclusion

Community-level research in Viscri suggests that the goals, measures and priorities used in Information Society policy in Romania need to be re-evaluated. In particular, when ICT goals are stated in universal, abstract terms, this seldom leads to results either members of the community or project evaluators are happy with. Instead, where life circumstances are the least promising, as in rural communities like Viscri, community development initiatives must focus first on the implementation of ICT at the elementary and secondary school levels. This will help ensure that children do not continue to fall through the digital or socio-economic cracks. Such programs are not only beneficial to the children, but parents who might otherwise be reluctant to embrace computers or the internet. They would be more willing to do so when it means that their children could have a better education and, in turn, a chance at a better life.

ICT success rates cannot be measured by the penetration rates of personal telephone lines, mobile telephone usage or personal computer ownership alone. These metrics explain little about what effect ICT efforts have in communities like Viscri. At worst, they provide policy makers and funders with a false sense of success. Indicators have to be designed that measure the extent to which a particular ICT project helps a community move toward socio-economic sufficiency. While national and international policies can provide a general, overarching structure, such policies rarely lead to the implementation of long-term, sustainable ICT development at the community level. This is especially true for the most marginalized rural communities like Viscri who often face bigger and more complex economic and social challenges than the digital divide.

Romania's Information Society policy is based heavily on European Union and United Nations models. These policies tend to be self-referential and outdated both in respect to both measures and project agendas. Instead of relying on such policy initiatives, those involved in the development of ICT initiatives must consider the relevance their initiatives have for the communities they serve. Ethnographic research can lead to greater

understanding of life in village communities in Romania and elsewhere around the world. With such data in hand, it will be possible to implement relevant ICT initiatives that can help lead communities like Viscri into the future.

End Notes

1. Two of the three interpreters had to leave Viscri in the second week of the research visit and it was not possible to replace them before the project's conclusion.

2. It has been observed, especially by Anglo-Saxons but not by them alone, that façade and dissimulation have long played an important role in Romanian history, character and culture (Fermor, 1986). Often this has been explained as a form of accommodation or even symbolic protest that emerged out of Romania's long periods of occupation, whether it be by ethnic minorities like Hungarians and Saxon or by foreign invaders. What we found in Viscri is essentially the construction of and the justification for a Potemkin village. There are of course parallels here to events in recent Russian and German history. The rationalization for, to coin a phrase, this Disneylandization of Viscri also rests on a similar combination of ethnic valorization and economic/ideological self interest. What makes the situation in Viscri different today is that the ideology and activities promoted by Saxon elite there owes more to 19th century dynastic, familial capitalism than anything else.

References

Abraham, D., Bădescu, I., and Chelcea, S. (1995), *Interethnic relations in Romania: Sociological diagnosis and evaluation of tendencies*. Editura Carpatica, Cluj-Napoca, Romania.

Carrier, J.G. (1992), "Occidentalism: The world turned upside-down", *American Ethnologist*, Vol. 19, No. 2, pp. 195-212.

Center for Democracy and Technology (2005), "Bridging the digital divide: Internet access in Central and Eastern Europe", available at: http://www.cdt.org/international/ceeaccess/report.shtml (accessed 21 April 2008).

Cleary, P. F., Pierce, G., & Trauth, E. M. (2006), "Closing the digital divide: Understanding racial, ethnic, social class, gender and geographic disparities in Internet use among school age children in the United States", *Universal Access in the Information Society*, Vol. 4, pp. 354-373.

Dragulanescu, N. G. (2002a), "Social impact of the "digital divide" in a Central-Eastern European country", *International Information & Library Review*, Vol. 34, pp. 139-151.

Dragulanescu, N. G. (2002b), "Emerging information society and history of information science in Romania", *Journal of the American Society for Information Science and Technology*, Vol. 53, No. 1, pp. 41-46.

eRomania Gateway (2003), "eRomania Gateway", accessed at: http://www.ro-gateway.org/node/215571/ (accessed 14 April 2008).

European Communities (n.d.), "Romania country profile: Information society indicators", available at: www.epractice.eu/resource/2047 (accessed 21 April 2008).

European Union (2000), "eEurope: An information society for all. Progress report. For the special European council on employment, economic reforms and social cohesion – towards a Europe based on innovation and knowledge (COM (2000) 130 final). Lisbon, March 23-24", available at: http://aei.pitt.edu/6989/ (accessed 21 April 2008).

European Union (2005), "Communication from the commission to the council, the European parliament and the European economic and social committee: Speeding up progress towards the Millennium Development Goals, the European Union's contribution (COM (2005) 132 final/2)", available at: http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2005:0132:FIN:EN:PDF (accessed 21 April 2008).

Fermor, P.L. (1986), *Between the woods and the water,* Viking, New York, NY.

Fisher, K.E., Marcoux, E., Miller, L., Sanchez, A. and Cunningham, E.R. (2004), "Information behaviour of Migrant Hispanic Farm Workers and Their Families in the Pacific Northwest", *Information Research*, Vol. 10, No. 1, available at: http://informationr.net/ir/10-1/paper199.html (accessed 30 November 2006).

Handler, R. and Linnekin, J. (1984), "Tradition, genuine or spurious?" *Journal of American Folklore*, Vol. 97, pp. 273-290.

Hawkins, S. (2005), "Beyond the digital divide: Issues of access and economics", *The Canadian Journal of Information and Library Science*, Vol. 29, No. 2, pp. 171-189.

Howard, P. N. (2007), "Testing the leap-frog hypothesis: The impact of existing infrastructure and telecommunications policy on the global digital divide", *Information, Communication & Society*, Vol. 10, No. 2, pp. 133-157.

International Research and Exchanges Board (n.d.), "IREX | Global Libraries – Romania", available at: http://www.irex.org/programs/global_libraries/index.asp (accessed 8 August 2008).

Littrell, M. A., Nyce, J. M., Straub, J., & Whipple, M. (2006), "A study of the information infrastructure of a Transylvanian village", *New Library World,* Vol. 107, No. 1226/1227, pp. 321-331.

Mariscal, J. (2005), "Digital divide in a developing country", *Telecommunications Policy*, Vol. 29, No. 5-6, pp. 409-428.

Ministry of Communications and Information Technology, Government of Romania (2002), "National strategy for the new economy and the implementation of the information society (abridged version)", available at: http://www.mcti.ro/index.php?id=55&L=1 (accessed 14 April 2008).

Neelameghan, A., & Chester, G. (2007), "Knowledge management in relation to indigenous and marginalized communities in the digital era", *Information Studies*, Vol. 13, No. 2, pp. 73-106.

Ono, H., & Zavodny, M. (2007), "Digital inequality: A five country comparison using microdata", *Social Science Research*, Vol. 36, pp. 1135-1155.

Oxendine, A., Borgida, E., Sullivan, J. L., & Jackson, M. S. (2003), "The importance of trust and community in developing and maintaining a community electronic network", *Human-Computer Studies*, Vol. 58, pp. 671-696.

Pop, I.A. and Porumb, M. (2004), *The cultural heritage of Romania: Transylvania*, Institutul Cultural Român, Cluj-Napoca, Romania.

Robotham, D. (1997), "Postcolonialities: The challenge of new modernities", *International Social Science Journal*, Vol. 153, pp. 357-371.

United Nations (n.d.), "The Millennium Development Goals", available at: http://www.undp.ro/download/files/mdg/MDG_PUBLICATION.pdf (accessed 21 April 2008).

United Nations (2002), "Romania Country Profile, Johannesburg Summit", available at: http://www.un.org/esa/agenda21/natlinfo/wssd/romania.pdf (accessed 14 April 2008).

United Nations Country Team in Romania (2003), "United Nations Development Assistance Framework, 2005-2009", available at: http://www.un.ro/_documents/UNDAF_Romania_final.pdf (accessed 14 April 2008).

Wade, H. (2002), "Bridging the digital divide: New route to development or new form of dependency?", *Global Governance*, Vol. 24, Oct-Dec, pp. 443-466.

Whipple, M., & Nyce, J. M. (2007), "Community analysis needs ethnography: An example from Romania", *Library Review*, Vol. 56, No. 8, pp. 694-706.

Wilkie, K. (2001), "The Saxon villages of Transylvania, Romania", available at: http://www.kimwilkie.com/images/projects/ovs/transylv/transylvania_prt1.pdf (accessed 24 September 2008).