

# **Telecottages and the Modernization of Public Services in Hungary: The Case of the Village of Jászakisér**

**By**

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## INTRODUCTION: THE TECHNOLOGICAL AND INFORMATION GAP IN RURAL HUNGARY

Following the first free elections since 1946 in May, 1990, Hungary's 1,600 local councils, almost overnight, multiplied to over 3,100 with passage of the Law on Local Self-Governments and a series of other laws introducing frameworks for the free market and a new political system. The number of mayors, city council members, municipal administrations also increased in proportion to the multiplication of legally constituted local self-governments. These new self-governments were often formed by taking apart the 'common councils,' or groups of villages consolidated during the Communist era. In only isolated instances did a mayor and council represent more than one physical settlement, in sharp contrast to the usual practice even in 2001 in Slovakia, Croatia, Yugoslavia and elsewhere in the region. Of these 3,100 settlements, 2,900 are villages, and 50% of them have fewer than 1,000 residents. The multiplication of local governments, though very democratic in the sense that each local government was completely equal before the law, was not accompanied by a proportionate increase in know-how or skills at the local level. Though significant financial, real estate and operational assets were also transferred to all local governments, they remained very unequal in terms of being able to deliver on the 26 mandatory functions assigned to all municipalities, regardless of skills, assets or size. Given a system of per capita normative financing for self-governments, small villages have consistently operated at a deficit or near deficits. Since virtually every settlement in Hungary had its own municipal government since 1990, these units inherited responsibility for economic development, structural unemployment, social welfare and overcoming extremely uneven living conditions across regional lines.

Rural poverty and isolation, though inherited, combined with structural unemployment caused by the demise of socialist agriculture and industry, overwhelmed these new local administrations. It became apparent that rural backwardness, in contrast to the capital city of Budapest and few successful regional centers such as Győr, Szeged, or Nyíregyháza, was also a function of a lack of information, and an inability to overcome technological obstacles to gain access to information. Activists in small villages, encouraged by mainly American assistance programs, realized that citizens groups, NGOs and small business would have to complement and assist the efforts of small municipalities if rural Hungary wanted to close the gap with the larger cities. Telecottages, by providing community self-organization, self-confidence and access to national information, were also convenient outreach mechanisms for national level ministries that intended to 'develop' rural areas in an efficient manner.

This case study will not focus on the spread of technology through the telecottages nor on how telecottages became accepted by the mainstream funding agencies, both foreign and domestic. Instead, by analyzing one of the first telecottages in the country in the Village of Jászakisér (population 6,200), this chapter will demonstrate the effect of the telecottage movement on aspects of decentralization, public administration reform, and the reorganization of the delivery of public services at the municipal and microregion (NUTS IV) level.

Telecottages are not merely collections of dispersed best-available technology since the costs of communication and information technology are both becoming commoditized in the near future. Instead the success of telecottages is due to the public service, community organization, and self-reliance that they provide to often economically depressed and isolated areas:

- They firstly provide self-organization skills, survey local needs, and thereby demonstrate that even a divided community can be successful in attracting funds from the outside.
- The secondary effect is of course access to information and the ability to communicate and process data of all sorts needed to improve life in a village.
- The tertiary effect of telecottages could be, in the near future, the realization of the principle of “subsidiarity,” an oft-cited EU goal, in which problems are solved effectively at the lowest possible level of administration. Telecottages, through effective and localized delivery of government services (via contract) could affect national policy were the feedback mechanism more interactive.

## THE CASE OF JÁSZKÍSÉR<sup>1</sup>

Jászakisér is a 600 year-old village of 6,200 residents in Central Hungary, about 100 kilometers due east of Budapest on the northern edge of the plains. The villagers are primarily engaged in agricultural activities. The municipal government has a budget of 20 million euros. The elementary school has 650 pupils, of which 40% are Roma. In addition to the usual municipal council, mayor and administration, the village has a Roma self-government with a small budget and consultative powers as well as several Roma NGOs. Unemployment in 2001 averaged 16%, about two and half times the national rate. Consequently, social problems predominate discussions in the village council. The village used to have small-scale wood processing, machinery and food processing plants before 1990 and the transition to the market economy. Many of these firms survived the transition, albeit employ only a fraction of the previous workforce. These firms own buildings, undeveloped land and other assets that could be sold to investors. Any civil initiative would have to first address the unemployment and social sector before tackling economic development or similar issues.

This village, like many others, could not manage economic development, social problems, as well encourage a vibrant civic life on its own, despite having a population base much larger than the average village. Its proximity to Budapest

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<sup>1</sup> The author is indebted to Mr. László Balog, ([baloglaci@vnet.hu](mailto:baloglaci@vnet.hu)) founder of the Jászakisér telecottage, for giving an extensive interview, as well as providing access to various grant applications and other materials describing the telecottage's history, prospects and plans for the future. Mr. László Osváth assisted the author in conducting the field research.

was not helpful in gaining access to information about government grant programs, special subsidies for the handicapped, or for encouraging retraining in new skills. Attracting outside capital investment and overcoming the 20 kilometer distance from the superhighway link to Budapest proved to be insurmountable obstacles. Like most villages in the country, NGO life was nearly nonexistent as the population struggled to survive, and all social initiatives outside the Party were discouraged. The demise of the agricultural cooperative and the availability of work in nearby cities just reinforced a rapid migration of well-educated skilled workers away from the village. Young people who finished secondary school or even college seldom returned to live in the village.

In 1994 several concerned citizens established the Jászki­sér Childrens' Foundation, thus becoming the first legally-constituted NGO in the village. (other associations such as sports and fishing clubs were entirely informal). The foundation's primary goal was to assist the development of the village's children. In 1996 the Foundation applied for a grant to a US-funded organization called Demnet (see [www.demnet.org.hu](http://www.demnet.org.hu)), and in 1997 established Hungary's third telecottage. Demnet's goal at the time was to encourage cooperation between the 'third sector,' municipal governments and small business. Establishing a telecottage by definition involved all three, and funding was only available from Demnet if the three sectors demonstrated cooperation. Since 1996, given the telecottage's services, presence, and positive example, 23 new NGOs were established in the village. The telecottage serves all of them, providing office and grant-seeking assistance to individuals, NGOs and small business. In the beginning the organization had only three computers, a copier and one phone line. (In 1994 the village only had manually-switched telephones). By 2001, all of the phone lines are ISDN, with a network of 12 computers, a color laser printer and all other necessary office equipment.

The telecottage in Jászki­sér, like many others throughout the country, is successful in seeking funds for its capital investments and upgrades of equipment. All telecottages face difficulties in generating enough operating income to cover labor and overhead costs. For example, Jászki­sér telecottage's annual revenues for 2000 were 16,000 euros. Only 6,000 euros were generated from user fees and charges. The balance was won from various donors and government agencies. This of course does not include capital grants from government programs and from umbrella NGOs distributing funds on behalf of international donors such as Phare. As a positive example, the telecottage in Jászki­sér was able to cover about 90% of its labor costs with grants from the Labor Center, a government agency responsible for training and placing the long-term unemployed. The telecottage in Jászki­sér is a leader in developing experimental programs with various government agencies in order to earn its operating revenues. In 2002, the telecottage will begin to offer rehabilitation services for the Social Welfare Ministry for handicapped people. In return, the Ministry will fund several positions at the telecottage from central funds. If Jászki­sér's experiment works, the Ministry will consider taking the program nationwide at the micro-regional level. In this way, individual telecottages may have a long term impact on better and more customized central government services. A key problem, however, is communicating these isolated successes to the appropriate policymakers, then converting the lessons learned into line items in the national budget to be redistributed along normative, or fee for service lines to NGOs and other alternative service providers.

In terms of generating other aspects of operating expenses, the Jászki­sér telecottage and its NGO “owner” enjoy several types of in-kind revenues and contributions that do not show up in the financial statements. The local agricultural cooperative makes an old building available, free of charge, to the telecottage. By mid-2002 the telecottage will move to a brick building on the main square, but for the first 4 years of operation the cooperative’s unused building enabled the NGO to have a permanent base for its efforts, at no direct cost. The Childrens’ Foundation pays operational expenses such as utilities, telephone charges, wages, taxes and other material costs. The municipal government provides very little cash or in-kind support. In most telecottage villages in Hungary, the municipal government offers office space, and often covers heating and other utilities that apply to municipally owned buildings. Jászki­sér telecottage in its efforts to offer the “minimum” level of service, as well as to assist other NGOs must constantly reinvent the revenue-generating services it provides. Jászki­sér telecottage has outgrown its initial office, and has been offered free use of a municipal building.

This building, on the main square between the Catholic and Protestant churches, will serve another function. The telecottage conducted a survey on the state of the handicapped in the village, and discovered that there are no employers able to employ the handicapped. The telecottage prepared a proposal for the County Labor Office to set up a high tech printing facility that will be built around the needs of the handicapped. The telecottage was awarded 24,000 euro, or 1.5 times its total annual operating budget, to remodel the currently unoccupied and rapidly depreciating building. The telecottage will move to the refurbished building, and is committed to employing the handicapped for at least three years in its printing facility. Four new employees, all handicapped, will be added to the telecottage’s current staff of four. The “teleprint” press will seek clients in Central Hungary and hopes to become self-sustaining, recycling the profits back into the telecottage.

## GENERAL INFORMATION ABOUT TELECOTTAGES IN HUNGARY<sup>2</sup>

Jászki­sér’s success needs to be put into context through a brief history and description of the telecottage movement in Hungary. Given the universal acceptance of the idea in Hungary, telecottage “civilian technology” has spread to Yugoslavia, Slovenia, Romania and more recently, Slovakia.<sup>3</sup> Organizers in these countries have direct ties to some of the veteran telecottage organizers in Hungary, and have benefited greatly from the spread of donor support for such efforts. Background on the Hungarian movement may assist advocates in other parts of emerging Europe in their efforts to modernize rural regions.

In the first years of the last decade of the century, librarians in Hungary began to notice descriptions of Danish and Swedish telecottage initiatives in the professional literature. They thought that modernizing and extending library

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<sup>2</sup> This section relied upon information available to the public on the Hungarian Telecottage Public Purpose Corporation’s home page, [www.telehaz.hu](http://www.telehaz.hu), and an update of the author’s study (co-written with Gábor Bihari) entitled: *Telecottages in Hungary: The Experience and the Opportunities*, published by IGE Limited, Budapest, 1999. The booklet is downloadable in its entirety at [www.ige.hu](http://www.ige.hu). An additional source of primary information dated 1998 but still valid is the screenplay of a film entitled “Our Telecottage,” funded by USAID, that can also be downloaded at [www.ige.hu](http://www.ige.hu).

<sup>3</sup> For Romania see: [www.telehaz.ro](http://www.telehaz.ro) and [www.telecentru.ro](http://www.telecentru.ro). For Yugoslavia see [www.teledom.org.yu](http://www.teledom.org.yu), [www.ljig.net](http://www.ljig.net), [www.ivanjica.net](http://www.ivanjica.net).

services would lead directly to tele-service centers. The goal was to make available, on a broad scale, new information sources, channels, media and tools to a variety of users who otherwise did not have access to such services. They thought foremost of small communities in the countryside where resource-poor small libraries could renew themselves by taking on new functions and thereby strengthen their positions. These initiatives resulted in several articles, a publication that ended up being very useful ultimately, as well as a telecottage that closed in 1994 after only a few months of operation.

At the end of 1993 during a community development program in Csákberény, a small mountain community in mid-western Hungary, it became apparent to all participants that there is a demonstrated need for an office accessible to all, where one can go for information, use computers, make telephone calls, send faxes (the Internet was unknown here at that time), take care of business, as well as hold events. This community initiative involving volunteers, and financial support from the local government, the business sector, and from the national level Welfare Ministry, resulted in the establishment of a telecottage in 1994. That is when everyone began to understand why the librarians' efforts were unsuccessful. The local communities did not understand, nor did they become stakeholders in the cause.

Fifteen individuals representing various professions, such as librarians, computer specialists, sociologists, journalists, public administration experts, village developers etc. established the Hungarian Telecottage Association at the end of 1994. They thought that as the number of telecottages grew, they would hand off the leadership role to them.<sup>4</sup> The goal was to turn Csákberény's initiative into a national movement by encouraging the establishment of more telecottages, representing their interests and supporting their needs as a network, as well as by seeking resources on their behalf. All this should become a national program. In 1996, a decision was made to write a book to popularize telecottages.<sup>5</sup> The decisive move, however, was a conference organized by the Association, where the organizers won the support of the "Democracy Network" (DemNet), and that of Hungary's Office of the Prime Minister.

The director of the USAID-funded "DemNet" program decided to launch a grant competition to establish telecottages in the shortest possible time. As a result, between 1997 and 1998 thirty-one new telecottages were established in Hungary. This multiphase project provided about 1.5 million dollars in support. Concurrently the Hungarian government, more exactly, the Office of the Prime Minister noticed this "grassroots" movement and offered to support the movement within the framework of its national modernization program. The Prime Minister's Office asked the Association to develop a concept for the National Telecottage Program. The Office committed itself to offer a grant competition to support the implementation of the concept.

By the end of 2001 there were 221 operating telecottages in Hungary with an additional 158 under development and expected to come on line in 2002. The operating telecottages oversaw an additional 38 micro-offices, with 53 new branch offices expected to be completed shortly. By 2004, under ideal conditions, about 500 to 800 telecottages will "blanket" the country. These telecottages will be connected to about 1,000 to 1,500 satellite offices. Each telecottage is independent. Usually a local NGO owns the assets, and they provide the legal

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<sup>4</sup> This had actually happened in December 1997, by which time 25 telecottages were in operation.

<sup>5</sup> The book "Let's Build a Telecottage" appeared in the spring of 1997 to great acclaim. It was not reprinted only because in the meantime the next book had to be written on the "dream come true."

and business framework needed for lawful operations. Typically local governments provide support with contributions of office space, personnel, financial resources, and through contracting out of public services to the telecottage operator. Often the host institution itself is an entity affiliated with the local government (library, school, and community center). The operator could often be a private firm that signs a contract with the owner, usually an NGO. These hybrid structures are very flexible (if needed, these structures can appear to be non-profit, business-oriented or take on a public administration image), diverse, and they all adjust to local conditions.

If there is a telecottage close by, more and more small villages establish simple access points called telecottage satellite offices. These small units have a few computers and a telephone line, and are able to gain access to the services of the nearby telecottage either electronically or through other mechanisms. In the context of the social welfare sub-program (from now on), the services of the telecottages will be used to organize and assist the work of the village “caretakers.” The organization of village caretaker<sup>6</sup> telecottages is under way and satellite telecottages to make their work easier by combining their minibuses services with telecottage services. Village caretakers are trained to take full advantage of computer and communications technology.

#### *Defining Telecottages: Minimums and Monitoring*

As their number grew and competition for funds became more intense, it became more and more convincing that a definition was needed for exactly what telecottages are or could be. There are so many similar initiatives around the world and in Hungary that delineating the boundaries seemed necessary. It is by no means a perfect definition, but continuous refining of the “telecottage minimum” is also part of the task. These are the minimum standards expected by the Association of institutions who wish to use the name telecottage.

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<sup>6</sup> Currently there are about 400 central government grant-supported village caretakers in Hungary (their numbers are growing) in villages with fewer than 500 inhabitants, bad communications, transportation and lacking public services. They have minibuses and offer various types of assistance to people in need (transportation, shopping, taking care of official matters, organization and information). This idea is very popular.

### **A. Operational Characteristics**

1. *Public benefit, “NGO-ness,” societal oversight:* Telecottages in Hungary each serve their own community. Since the community’s “modernization brainpower” should belong to all, it has to operate under community oversight.
2. *Open services that constantly adapt to serve the community’s changing needs:* Telecottages are not defined by their once and forever services, but rather by a multiplicity of ever changing services and infrastructure, and their ability to serve the public.
3. *Community space and memory, a public forum, and a catalyst:* As far as the community is concerned one of the most important functions of modern information technology is assuring the free flow of information, capturing useful information, and accumulating such as form of collective community memory.
4. *Public services for everyone.* Telecottage activities should be available to all. A telecottage cannot serve only a certain social group, stratum, club or organization. It has to be accessible to everyone within the community and to outsiders alike.
5. *Responsible, independent, competent manager and servicing organization:* Telecottage activities mean predictable and guaranteed services for users. This has to be accompanied by a professional operation and a business-like attitude sufficient to sustain the facility.
6. *Modern information and communications technology:* Telecottages operate as a sort of community “access point” to modern information and communications technology available simultaneously to several users. Telecottages are also access points to business and public services in general.

### **B. Basic Services**

1. *Headquarters, service center for NGOs:* Telecottages must have the capability to serve as the home and service center of NGOs located within a community. New NGOs should not have to build and maintain a new institution that they cannot maintain and sustain into the future.
2. *Cooperation and assistance in arranging official matters:* Effective access to information should be used to guarantee that citizens can take care of their official business in the simplest possible manner, at least cost, with the least inconvenience.
3. *Providing internet access:* The internet needs to be available to all who want to use it, and cannot, or do not want to purchase access at home. Telecottages not only link the clients to the world, but also help them to make the best use of the internet for their own goals.
4. *Email for all citizens:* All members of the community gain access to email through the telecottage. Each citizen should have a private mailbox and address that is password protected.
5. *Public interest information:* Methodological collection and dissemination of national, regional and local information on behalf of local users does not take place only electronically, but traditional bulletin boards and newspapers also have a role to play.
6. *Local advertising, local news centre:* Telecottages collect and disseminate local news within and outside the community. They provide opportunities for business, public interest and governmental advertisements and notices to be placed in various formats and ways.
7. *Office services (for example, office space, fax and copying):* Providing “an office to everyone” is the most basic and most popular telecottage service. These office services are critical for efficient capacity utilization as well.
8. *Use of multimedia:* Modern computer equipment provide multimedia functions as a basic function. Additional services related to multimedia provide information, work opportunities and entertainment. Multimedia and internet usage are the technical basis of distance learning and teaching.
9. *Computer use:* Telecottages must provide computer services, including access for distance workers. This includes both occasional and regular equipment use on a fee basis.
10. *Computer games:* Telecottages must make computer games available for users of all ages. Using computers for games and entertainment is an important step in developing a new information and communications culture.

These criteria are used, for example, to determine eligibility in calls for proposals aimed at existing telecottages. Furthermore, the right to use the name “teleház” or telecottage in Hungary is linked to membership in the Telecottage Association. Naturally, membership means adherence to the minimum standards defined above. Other facilities in Hungary that offer computer services, internet, games etc. for the general public for a fee may be similar to telecottages, but are not considered to be telecottages by the profession. Unfortunately the name “telecottage” has become a bit too popular, with grant programs and grantees using the term liberally without sufficient attention to all of the points above.

### *Services Delivered*

There is a saying that telecottages do everything for which they are equipped and there is a demand. Hungary’s situation is typified by the large number of very small villages (about 1,800 villages have fewer than 1,300 residents, and 2,500 have fewer than 3,000 people—with a total of 3,200 incorporated municipal units of every size in the country). These villages usually

lack state and public service delivery institutions, and have retail and business services of inferior or limited quality (for example: education, culture, social services, transportation, mail service, bank services, retail goods etc). Job opportunities are also limited. The basic reason for this is that the scale economies to efficiently provide these services and to create job-sustaining businesses in such small villages are simply not present. People living in rural areas thus pay a premium price expressed in terms of travel time, higher shipping costs and more expensive information. These same people also have a much lower income than those living in cities. Telecottages seek to act as service and information middlemen in all of these areas. There are currently 50-60 local services being provided by telecottages, though not all of them in each place.

The following chart lists the wide range of present and future services, each of which could generate revenues beyond start up capital grants for continued operations, upgrades of equipment and depreciation.

### **Examples of telecottage services and revenue generation\***

Activity	<i>Whence comes the money?</i>
<b>Advertising*</b>	Telecottages have several advertising outlets to offer: inside and outside the building itself, internet,* newspapers,* and other publications.* Brokering local, micro-regional, county and national advertising, as well as processing such requests is another revenue source.
<b>Alarm monitoring, remote sensing</b>	In return for certain fees telecottages can make their communications lines and computers available to volunteer police forces to provide an effective alarm system for a community.
<b>Babysitting, playroom services</b>	Babysitting can be combined with computer games and other group and playroom activities.
<b>Bookkeeping and software support</b>	In a telecottage several bookkeepers may use a single set of software simultaneously. License fees are low so using these services is more economical for client, especially in the start up phase. Payroll clients pay a surcharge for equipment use beyond the standard fees to the telecottage.
<b>Business brokering, branch office, agency</b>	A telecottage's permanent and contract employees can assume a variety of agent and representative roles, for example trade, banking, insurance, internet subscriptions, real estate, advertising,* business information and consulting, press clipping, public opinion surveying and market research.
<b>Business brokering on a local level</b>	Another set of promising sources of revenue are the various business brokering, intermediation service, and virtual market provision opportunities. (maintaining a supply and demand database on an accessible local computer) Telecottages also maintain lists of goods and services providers, have collections of prospectuses and brochures, as well as samples of local products. In addition telecottages also offer local service and manufacturing capacities in the hope of earning commissions.
<b>Cash and in-kind donations</b>	Cash and other donations come from 1 % of income taxes as designated by donors (a unique opportunity in Hungary for NGOs with special legal and tax status), sponsoring memberships, membership fees from other NGOs, sponsorship, donations from native sons living far away, raffles, donations at charity events, and many other opportunities to solicit donations.
<b>Clubs*</b>	Telecottages can rely on membership and service dues paid by members of clubs such as film, music, artistic, computer, language etc. clubs.
<b>Computer access</b>	Among office services, time-based use of computers and software is the most widespread. This service can be significantly expanded if available software is adjusted to and acquired for local needs.
<b>Computer consulting, technical advice, repair and maintenance</b>	Repair and other hotline services in villages with a telecottage is important since there the number of home computers is spreading fast and local citizens need help. This could take place on a retainer, fee for service or combined billing basis.
<b>Copying Services</b>	Copying services provide a steady and good source of revenue, especially if their services are more economical than elsewhere. There are such copiers and duplication

	machines available that are not expensive, do not require special training and can handle medium-sized jobs (between 100 and several thousand copies, such as local newspapers) more economically than traditional office copiers
<b>Demonstration telecottage services, and telecottage innovations</b>	Telecottages act as demonstration and test bed sites for equipment and software providers. As a part of marketing expenses, equipment providers make cash or in-kind donations to telecottages.
<b>Distance work: performing, brokering and servicing</b>	Performance of distance work is more likely a future growth sector among telecottages.. Brokering distance work and providing office use provide revenue to telecottages. This income is set to rise if telecottages can offer competitive bids for services on the incipient "distance work" market.
<b>Education, organizing courses, supporting courses</b>	Education (we expect distance learning) is the most widespread and most significant source of revenue for telecottage. First of all this means language and computer instruction, as well as practical vocational training and refresher courses.
<b>Grant-seeking, assistance in grant-seeking</b>	A significant portion of the telecottages' direct revenues consist of international, national, regional, county and local grant support. Assistance in filling out grant applications comprises fee-based revenue either as a percentage of funds awarded or as a fixed fee.
<b>Interest</b>	Especially within the context of successful grant competitions: telecottages can temporarily earn interest on advance payments and other committed yet unspent idle funds. This is a risk-free source of revenue.
<b>Internet, business brokering, e-business</b>	Internet-based retail sales offer more and more opportunities to telecottages in commission-based sales*.
<b>Internet, homepage programming and maintenance</b>	Preparing and maintaining home pages for the village, local government, small businesses, local NGOs and citizens. This includes selling advertising* on these home pages, advertising that generates significant revenues.
<b>Internet, local service provision</b>	The simplest service is providing local access and individual email addresses to everyone. Recruiting internet subscribers on a commission basis* is another option.
<b>Internet, telecottage network content provision services</b>	Telecottages could provide content to the telecottage network, or to a broader circle of clients in those areas in which they have particular expertise. (For example, internet radio for telecottages, organic farming, exchanges of children etc.)
<b>Internet telephone services</b>	Internet telephony is still a part of the future, but technically it is already feasible.
<b>Lending</b>	The lending of multimedia and music CDs, household appliances, tools, videos, and more expensive books (such as handbooks and encyclopedias).
<b>Local media</b>	Publication of local newspapers* is the most common service offered. But telecottages operate local cable systems and offer studio space to local radio stations. Public relations activities also generate indirect sales potential such as advertising* and public service announcements.
<b>Obtaining government (matching) funds</b>	Telecottages can receive wage subsidies from county labor offices, job creation grants, block grants from local governments as well as in-kind cost sharing from the local mayor's office. In-kind cost sharing offered by the local government is the most common form of grant earned by telecottages. The use of draftees doing alternative civilian public service is a special cost-effective method for reducing expenses.
<b>Office leasing and other space leasing</b>	Telecottages can lease space for fixed terms to the following types of clients: distance workers, "instant offices," village caretakers, village managers, regional development managers, other advisors, NGOs such as vineyard cooperatives etc.
<b>Performing Public Administration tasks, advice on official matters</b>	Governmental agencies, organs may contract with telecottages to perform administrative duties* and to provide public administration services to the public. Eventually under certain conditions telecottages could perform "distance" public administration on behalf of governmental agencies. A new area of operation is in an experimental phase: telecottages could serve as "remote document centers."
<b>Photographic and video services</b>	Digital camera services, digitizing photographs, printing photos from video and other scanning activities are lucrative when combined with color laser printing. Telecottages can sell entirely digital photo albums, a product with virtually no material expenses.
<b>Postal services in the telecottage</b>	Tele-post offices offer this service. Traditional and modern postal services are combined in some telecottages. Here the line between the post office and telecottage "blurs."
<b>Printing preparation, organization, publications</b>	Telecottages can provide all types of printing preparation such as telephone books, yearbooks, newspapers,* local calendars with advertising,* cookbooks, postcards and special publications. With appropriate equipment and preparation, more complicated jobs could also be serviced by telecottages.
<b>Program management; headquarters for regional economic development efforts</b>	Telecottages earn fee-based revenues to cover a portion of their operating expenses by serving as micro-regional program management centers, initiating development proposals, collecting regional development information etc. Furthermore, telecottages can performing specific tasks on behalf of a regional development organization or

	association.* Additionally telecottages can earn revenue by managing development programs.
<b>Public Administration Tasks (via contracting out)</b>	There are several categories in which telecottages can provide services by signing contracts with local governments: social welfare activities, child welfare activities, services for village caretakers, public information services, simple administrative tasks,* regional information services,* and environmental protection.
<b>Sales</b>	Examples of direct sales by telecottages: books, gifts, handicrafts, antique books, bus passes, telephone cards, books on local interests, maps, envelopes, stamps, postcards, computer disks, used computers etc.
<b>Sharing of facilities and costs</b>	The building, equipment, communications lines and staff could be shared if another institution acts as a host for the telecottage (or visa versa). Examples include schools, cultural centers, libraries, mayors' offices, railway station etc.
<b>Snack shop, coffeehouse, tea room operations</b>	Like cyber cafes, telecottages often serve (or offer self-service) coffee, teas, sweets and pastry products.
<b>Special Events Organization</b>	Telecottages earn revenues by offering venues and other services for art shows, family events, balls, street fairs, village festivals, arts and crafts camps, sports events and other occasions. (advertising,* donations,* retail sales,* entrance fees, space rental, auctions, and many others)
<b>Tele-carpool, ride-sharing services</b>	A telecar optimizes travel arrangements using cars, minibuses in their full capacity, offering more comfortable travel for telecottage clients. Revenues accrue from splitting efficiency gains resulting from ride sharing. (the transportation provider, rider and telecottage share the gains). This is not yet a popular option.
<b>Telephone answering services, message forwarding, call center operations</b>	Call center operations offer a special opportunity for telecottages. Call centers are used to handle marketing surveys, public opinion research, sales campaigns and informational campaigns. Call centers answer questions, compile and forward information for the client. Special call center firms forward requests for services to potential contractors such as telecottages. This only works with multiple phone lines.
<b>Telephone, fax services and message forwarding</b>	Telecottages often offer phone services. This is not a significant source of revenue unless it is linked to other services such as message forwarding and faxing. It is important that the telephone equipment (and telecom company) be able to measure and bill the cost of services to the client.
<b>Tourist services</b>	Brokerage of guest rooms, providing tourist information, publicizing programs, organizing youth and children's camps etc. are widespread services. There is a certain level of tourism among telecottages and their supporting NGOs based upon mutual trust. This usually means village tourism. Tourism in general is a revenue growth opportunity in the future.
<b>Translations</b>	Either directly in the telecottages' scope of operations or through distance workers, telecottages can offer translation services. The telecottage usually earns a commission* and charges for office services.
<b>Used computers, computing equipment sales</b>	Used computers with less than optimal processors are perfect for computer games, instructional programs, review sessions etc.
<b>Volunteers: accepting volunteer labor in return for discounts etc. in marketing campaigns</b>	Telecottages provide facilities and equipment to events organized by NGOs,* clubs,* instructors, consultants, and agents for the purpose of providing services (training, advisory services, information). In most cases volunteers working at the telecottage do not charge for their time. In return, certain service providers offer significant discounts and free services to the telecottage such as advisory services and health screening. For marketing reasons service providers grant these services at a discount in order to gain access to the market provided by telecottages and their environs.
<b>Word processing, documentation</b>	In this case a telecottage employee or contractor performs this work on behalf of a client.
<b>Videoconference services</b>	Videoconference services belong in the not too distant future. In its simplest form, picture telephones are used. A more complicated use involves business negotiations, distance learning and conducting conferences.

Examples marked with the star appear in multiple telecottages. Table from Jokay and Bihari, *Telecottages in Hungary*, (1999) table 6, pp. 35-44. For more current information see [www.telehaz.hu](http://www.telehaz.hu)

## TELECOTTAGES AND RURAL DEVELOPMENT IN THE CONTEXT OF THE TELECOMMUNICATIONS REVOLUTION

Hungary's unique NGO-based network of small community telecenters or telecottages grew from merely 7 in 1996 to over 400 by the end of 2001. These community-access and support organizations exist primarily in small villages of populations of less than 5,000, with the smallest telecottage village having just 300 residents. With over 3,100 settlements in the country, Hungary's telecottages are found in villages with an average size around 1,500 in population. Telecottages in Hungary are unique in that these are not government agencies, nor do they belong in the private sector. In each case, the "owner" or manager of a telecottage is a bona fide registered non-profit organization that forms a unique partnership with the local (municipal) government, the private sector and citizens. Telecottages are not cyber-cafes, nor are they arms of the national government's efforts at creating an e-government, universal access or distributed public administration. Despite the "NGO" and strictly non-profit, public service orientation of the telecottage movement, they have spawned two national organizations that lobby for and on behalf of increased and diversified funding from all levels of the public sector. There exists a Hungarian Telecottage Association, and a completely separate legal entity, the Telecottage Public Purpose Corporation.

The rapid increase in the number of telecottages, each an independent legal entity, from a handful in 1996 to nearly 400 by the end of 2001 coincided with an era of rapid growth in the telecommunication sector in Hungary. The number of telephone lines tripled from a little over 1 million in 1990 to over 3 million by 2000, with ISDN and ASDL available nationwide.<sup>7</sup> In addition, Hungary has over 4.3 million GSM subscribers with three digital service providers in the 900 and 1800 mhz range. Data from October, 2001 indicate that GPRS and WAP are universally available in Hungary, not just in the large metropolitan centers. Several regional telephone operators provide local service, and full liberalization of long distance, international and local service took place in December, 2001. Summing up fixed and mobile subscribers, there are over 70 lines available per 100 residents (Hungary's population is slightly over 10 million at the end of 2001).

Telecottages are not primarily substitutes for telephone, internet, WAP, SMS and other forms of communication. In fact, many of the original 31 telecottages funded in 1997-1998 by the United States Agency for International Development (USAID) did not have digital phone lines upon opening. Access to communications even via mobile phones is relatively inexpensive and universally available. Telecottages grew during a rapid expansion in the IT and communication sector, benefited from the universal availability of digital phone lines and from the popular effect of internet and email usage. However, those who benefit the most from internet access and office technologies are those who can most likely afford these technologies in the villages, hence do not necessarily wait for the arrival of a telecottage, nor constitute the profile of the average user.

Telecottages have affected the Hungarian government's national telecommunications and information technology strategy directly. The creation of telecottages and support for existing telecottages has become a popular expense item for many ministries, national authorities and even the Prime Minister's

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<sup>7</sup> See [www.hif.hu](http://www.hif.hu), the homepage of the Hungarian Communications Authority, and the Government Commission for Informatics, [www.ikb.hu](http://www.ikb.hu), for more information.

Office. (see [www.meh.hu](http://www.meh.hu)). In a major new effort to ensure a telecottage in each NUTS IV level microregion, the government announced a “white spots on the map” program in late 2001 to ensure universal telecottage access in each microregion.

### *Effects on National Policy, Impact of Telecottages on Delivery of Public Services*

The Hungarian government’s intention to create e-government, electronic signatures, virtual tax returns and an even more decentralized public administration do not yet rely on the telecottage network. Telecottages will not substitute 220 so-called “document centers” in 220 cities across the country where all types of documents and filings may be processed. Drivers’ licenses, vehicle registration, small business registrations, ID cards, passports and voters’ registration are handled by document centers funded by the Interior Ministry ([www.bm.gov.hu](http://www.bm.gov.hu)) and maintained by municipal governments. Given the need to protect and process sensitive personal and business data, telecottages will not have access to the government’s secure data network. These document centers essentially remove paper-processing burdens from local public administration and municipal offices. Telecottages may link to this effort by providing information to clients at the village level, downloading forms and assisting citizens in filling them out.

Telecottages, if they are as intuitive as the one in Jászkisér, will have a role in assisting central and regional offices of agencies and ministries in identifying problems, finding clients (for example, where do the handicapped live?), suggesting alternative service delivery methods and vehicles at the local level, and acting as a liaison on behalf of the national government at the local level. Telecottages in this sense make a significant contribution not by housing distributed technology, but rather by being the **credible local service** provider. Post office efforts at adding public access computers to its outlets failed miserably because no effort was made to meet local needs for consultation, and instead technology was disbursed from the center with no assessment of what human service was truly in demand. Central government efforts at “subsidiarity,” taking services down to the lowest level will only succeed if these services are introduced by local organizations with legitimacy in the community.

After nearly 5 years of operation, the telecottage in Jászkisér has not been able to directly influence the delivery of government, administrative or public services by central agencies. However, the telecottage movement’s leadership efforts at convincing national agencies to make better use of telecottages will eventually result in a per-capita “telecottage normative” paid to municipalities to cover the operating expenses of telecottages that for many reasons, provide priceless social benefits with hard costs, and lack the ability to assess reasonable user fees to recover all costs. László Balog, founder and leader of the Jászkisér telecottage, is convinced that such a normative will be forthcoming, and cited the example of village caretakers who waited over 4 years for the Welfare Ministry to recognize their success before a normative was introduced. Jászkisér’s efforts at providing labor market services to County Labor Offices on behalf of the handicapped and special needs employees should bear fruit within two years.

Telecottages such as Jászkisér add much needed and often missing “civil technology” to central efforts such as introducing e-government, electronic signatures, electronic tax filings and on-line municipal administration.

Telecottages build awareness and recognition among members of the public, so e-government, once it arrives earnestly, will be easily introduced in the villages with telecottages. In Jászki­sér the arrival of the telecottage did not preempt private efforts at gaining access to the internet. Instead, the awareness of what was available in the telecottage contributed to private subscriptions to internet providers. In 1997 upon commissioning of the telecottage there were no home computers and no internet subscriptions in the village. After 4 years of telecottage services, 50 local families bought computers with internet service. E-government in general is still in gestation, in other words will only truly operate if telecottages gain the skills to pass information back up to the national level, rather than simply providing access to information from top down. Data protection and privacy laws are very strict in Hungary, often considered hindrances to data storage and retrieval efforts, so telecottages, as private, non-profit organizations, are not authorized to handle, store and transmit personal information related to many public administration functions that they could, from a technological perspective, already offer in 2001.

## GENERAL CONCLUSIONS

Telecottages as of late 2001 have had limited impact on the design of central government decentralization reforms. In a sense, each of Hungary's 3,100 local governments, with its own mayor, staff and council, are already decentralized. What is lacking on the part of line ministries is an outreach effort to use the ever-growing telecottage network to decentralize and customize service delivery. Telecottage programs are sponsored by several line ministries, by the Prime Minister's office, and by special commissions for e-government and informatics. But these are still access and technology-driven efforts with little emphasis on adding value by customizing national programs, such as for employing the handicapped as in Jászki­sér, through the telecottage network. Four years of telecottage expansion have not yet proven to be enough for the feedback loop to reach the affected ministries, though offices of national programs located regionally or at the county level have modified their programs, budgets and activities based upon needs transmitted by telecottages. A challenge for the first few years of this century is for the 400 telecottages to influence national policy through highlighting isolated but intense examples of success.

A second general conclusion is that public administration modernization has been assisted by the multiplier effect of telecottages. Not only in Jászki­sér, but elsewhere where in 1997 there was only one legally registered NGO, there are now dozens special purpose NGOs. These organizations are predominantly serving social and economic development needs, the same niche that traditional top down ministry programs cannot simply meet by spending more resources. The Jászki­sér telecottage has prepared a multimedia CD presentation of the various vacant lots and excess labor available in the community, and that CD has attracted several small foreign manufacturers already. With a low budget effort based upon an intense knowledge of local resources, a telecottage can supplant the work of regional and national development agencies that spend a lot of resources but cannot genuinely show results.

Thirdly, e-government and the gradual electronization of public administration functions, tax filing etc, once online, will be much simpler in those 400+ villages that have already been trained by the telecottages. The level of

internet awareness is demonstrably higher in those villages as evidenced by sales of PCs in allegedly backward remote areas serviced by telecottages. A certain level of readiness, awareness and consciousness for e-government will make its implementation much simpler upon rollout.

Fourth, national programs, ministries and commissions are still concentrating on increasing the number of telecottages and servicing the blank spots on the map. This will soon be replaced by a need to refine content. The need to refine content or the type of revenue generating services will fit handily with the government's long term plans for universal access and e-government. Telecottages will be ready once a true commitment is made at top levels to fully use the legitimacy and acceptance, in other words goodwill, generated towards the internet and email by existing telecottages.

The national agencies have in a sense incorporated the numeric expansion of telecottages into their budgets without considering the structural impact of decentralized services and customized locally-delivered services. Local legitimacy based upon a realistic estimation on needs, combined with national services modified in accordance with local needs, is a special niche that only NGO-based "human capital" intense organizations can provide. Dispersing high technology into villages and remote areas alone simply is not adequate without the acceptance and the "civil technology" telecottages in Hungary provide. They are willing to share this experience with their neighbors in Hungary and abroad.

## REFERENCES

- Bihari, Gábor: Treatment of "OUR TELECOTTAGE — Rural Communities Progress Toward Information Society", Film Documentary, Center for Civic and Municipal Innovation, Budapest, 1998.
- Gáspár, Mátyás and Mária Takáts: "Let's Build a Telecottage", Közigprint – Közigkonzult, Székesfehérvár, 1997.
- Hungarian Telecottage Corporation, [www.telehaz.hu](http://www.telehaz.hu)
- Prime Minister's Office, Republic of Hungary, Special Commissioner for Informatics, [www.ikb.hu](http://www.ikb.hu) and [www.meh.hu](http://www.meh.hu). Both pages can be switched to English.