







FROM THE GROUND UP

[THE EVOLUTION OF THE TELECENTRE MOVEMENT]

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DEDICATION

JUST LIKE THE TELECENTRE MOVEMENT, CREATING THIS BOOK WAS A COLLECTIVE ENDEAVOUR. FROM THE VERY START, WE INVITED OTHERS INTO THE PROCESS, ASKING FOR IDEAS ON THE MOST INTERESTING TELECENTRE PROJECTS IN THE WORLD. FROM THERE, WE SPOKE WITH DOZENS OF PEOPLE IN EACH COUNTRY THAT WE VISITED, ALL OF THEM COMMITTED TO THE VALUES OF THE TELECENTRE MOVEMENT. IN THE END, THIS BOOK IS BUILT FROM THE WORDS, IMAGES, IDEAS AND PASSION THAT SO MANY PEOPLE SHARED WITH US SO GENEROUSLY. THESE PEOPLE COMPRISE A LIST SO LONG THAT WE COULD NOT POSSIBLY CAPTURE EVERY NAME, ALTHOUGH WE HAVE TRIED TO DO SO ON THE FINAL PAGES OF OUR BOOK. IT IS TO THESE PEOPLE, AND TO THE THOUSANDS LIKE THEM IN THE TELECENTRE MOVEMENT AROUND THE WORLD, THAT THIS BOOK IS DEDICATED.

TELECENTRE:

A TELECENTRE IS A PUBLIC PLACE WHERE PEOPLE CAN ACCESS COMPUTERS, THE INTERNET AND OTHER TECHNOLOGIES THAT HELP THEM GATHER INFORMATION AND COMMUNICATE WITH OTHERS AT THE SAME TIME AS THEY DEVELOP DIGITAL SKILLS. WHILE EACH TELECENTRE IS DIFFERENT, THE COMMON FOCUS IS ON THE USE OF TECHNOLOGIES TO SUPPORT COMMUNITY AND SOCIAL DEVELOPMENT — REDUCING ISOLATION, BRIDGING THE DIGITAL DIVIDE, PROMOTING HEALTH ISSUES, CREATING ECONOMIC OPPORTUNITIES AND REACHING OUT TO YOUTH. TELECENTRES EXIST IN ALMOST EVERY COUNTRY ON THE PLANET, ALTHOUGH THEY SOMETIMES GO BY DIFFERENT NAMES (E.G. VILLAGE KNOWLEDGE CENTRES, INFOCENTRES, COMMUNITY TECHNOLOGY CENTRES, COMMUNITY MULTIMEDIA CENTRES OR SCHOOL-BASED TELECENTRES).

Wikipedia definition of "telecentre" http://en.wikipedia.org/wiki/Telecentre October 31, 2005, 8:17 pm GMT

THE TELECENTRE

MOST EARLY TELECENTRES STARTED WITH A MODEST GOAL: GIVING PEOPLE A CHANCE TO ACCESS AND LEARN ABOUT TECHNOLOGY. A TELEPHONE, A PHOTOCOPIER, A COMPUTER, THE INTERNET.

YET TELECENTRES HAVE EVOLVED. IT'S NO LONGER JUST ABOUT ACCESS AND SKILLS. TODAY'S TELECENTRES USE COMPUTERS AND THE INTERNET TO DO EVERYTHING FROM IMPROVING PUBLIC HEALTH TO EXTENDING EDUCATION TO A WIDER AUDIENCE TO STRENGTHENING LOCAL DEMOCRACY.

HAS EVOLVED

NO MATTER WHAT THEY ARE CALLED—TELECENTRES, COMMUNITY MULTIMEDIA CENTRES, TELECOTTAGES, VILLAGE KNOWLEDGE CENTRES, COMMUNITY TECHNOLOGY CENTRES, TELEHUTS, INTERNET LEARNING CENTRES, COMMUNITY ACCESS POINTS, LIBRARY COMPUTER LABS AND SO ON—THEY SHARE A COMMON COMMITMENT: TO HELP COMMUNITIES ENTER THE INFORMATION AGE AND EMBRACE THE KNOWLEDGE ECONOMY ON THEIR OWN TERMS.

THIS IS THE TELECENTRE MOVEMENT TODAY.



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EMPOWER CONNECT LEARN CREATE UNLEASH

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EMPOWERING COMMUNITIES

With only 300 residents, the Hungarian village of Alsómocsolád refuses to be left behind in the struggle for scarce government resources. Instead, local residents take over responsibility for postal services and other government programs through their village telecentre.

CONNECTING ISOLATED VILLAGES

In rural Chile, the village of Puerto Saavedra overcomes limited access to medical care and quality education. Today, the local telecentre gives villagers a global doorway to the best of both.

LEARNING FOR ALL

In Luang Prabang, Bhuddist monks, local women and students go to the E-way telecentre to learn computer skills that provide the key to education and prosperity in Laos' emerging knowledge economy.



UNLEASHING NEW VOICES

Lowell, Massachusetts, is half a world away from
Southeast Asia, but recent immigrants to the United
States can now produce their own bilingual videos and create rich, local media for their community.

ENHANCING ECONOMIC OPPORTUNITY

In downtown Accra, Ghana, a "social cyber café" acts as small business incubator that overcomes inadequate local infrastructure and helps turn the dreams of entrepreneurs of all ages into reality.

EMBRACING THE POWER OF NETWORKS

In India, governments, businesses and communities are using networks and collaboration to reach an almost unimaginable goal: to bring local knowledge centres to every one of India's 600,000 villages.

THE TELECENTRE

When telecentres first started appearing in Europe and North America in the mid-1980s, personal computers were extremely expensive and almost no one had ever heard of the Internet. Sharing access to computers, photocopiers, faxes and e-mail helped people—especially those in rural communities—learn how these new technologies could benefit them. Telecentres provided a gathering place and a springboard that helped communities join the information age and generate knowledge for themselves.

This idea of sharing technology tools has evolved dramatically in the 20 years since these first telecentres opened their doors. Governments, community organizations, the private

IS MANY THINGS

sector and grassroots technology activists have set up public access computing programs in almost every country on the planet, creating tens of thousands—or maybe even hundreds of thousands—of telecentres.

There's no one single model for creating a telecentre. They are as diverse as the communities they serve. Some community technology champions have set up stand-alone, nonprofit institutions. Others have integrated community access to computers and the Internet into public facilities, such as schools, libraries, municipal buildings and social service agencies. Still others have encouraged and supported small-scale social entrepreneurs to set up independent computer kiosks in rural areas.

Similarly, the way these telecentres are used by the public varies from place to place. They're helping community members learn and develop skills, creating local content and capturing local knowledge, supporting economic development, delivering microcredit and banking services, offering access to doctors and other distant professionals—the list is almost endless.

The technologies available in telecentres—and the ways they get used—have also evolved over the years. Computers are joined by old technologies (poster boards, ham radio, fax, community loudspeakers) as well as new ones (broadband Internet, video production facilities, low-power radio

THE TELECENTRE IS MANY THINGS

transmitters). Whether using new technologies or old, communities can bend and blend them into a combination of services that suit their needs.

Across all of this diversity, one thing remains the same: successful telecentres help communities seize knowledge and the benefits of the information age on their own terms.

This is what telecentres are all about. This is why it truly is a *movement*, rather than just a fractured collection of public technology initiatives scattered throughout the world. They may have different names, different methods and different audiences, but their shared values make them part of an international movement utilizing technologies for local development.

As is the case with any kind of endeavour, the telecentre movement has seen its share of failures and downturns. Individual centres have gone under for a variety of reasons: high costs and limited funding, lack of use within the community, difficulty finding and keeping trained staff.





Even whole telecentre initiatives have disappeared as governments and other kinds of donors pull funds, leaving hundreds or even thousands of centres wondering how—and if—they can keep their doors open.

Yet the urge of communities to seize the benefits of information and communication technologies is so strong that what initially looks like failure often snowballs into a new kind of success.

In many countries, the closure of government programs hasn't stopped communities from keeping their local telecentres going. They roll into the regular programs of social service agencies, spin off as social enterprises or continue through the power of volunteerism. Even where the telecentres themselves don't continue, the introduction of technology still ripples out across communities in the form of new jobs, new businesses and new ideas.

At the same time, countries that are newer to the telecentre movement are looking at innovative models that mix the best

ingredients of early telecentres with fresh ideas aimed at increasing the likelihood of success and long-term sustainability. For example, a handful of "information kiosk" organizations in India are breaking new ground. They're focusing both on local entrepreneurship—each kiosk is privately owned—and on important community services such as health care, banking, government services, education and literacy.

It is this resilience and spirit of innovation that have helped the telecentre grow from a small idea into a global movement.

This book provides a quick glimpse into the lives of a few of the people who are leading the telecentre movement in their own countries, and of the people who are benefiting from their local telecentres. Understanding their stories will help us to understand their passion—and paint a picture of a future where technology is driven by the needs of people and the communities they live in.







EMPOWERING

THE BEST TELECENTRES ARE LOCAL GATHERING PLACES; PLACES WHERE PEOPLE COME TOGETHER TO TALK, TELL STORIES AND SHARE KNOWLEDGE. SURE, THEY ALSO COME TO USE COMPUTERS AND THE INTERNET. BUT IT'S THE TALKING AND STORYTELLING THAT BIND THE COMMUNITY TOGETHER AND SET THE TONE FOR HOW THE TECHNOLOGY IS USED.

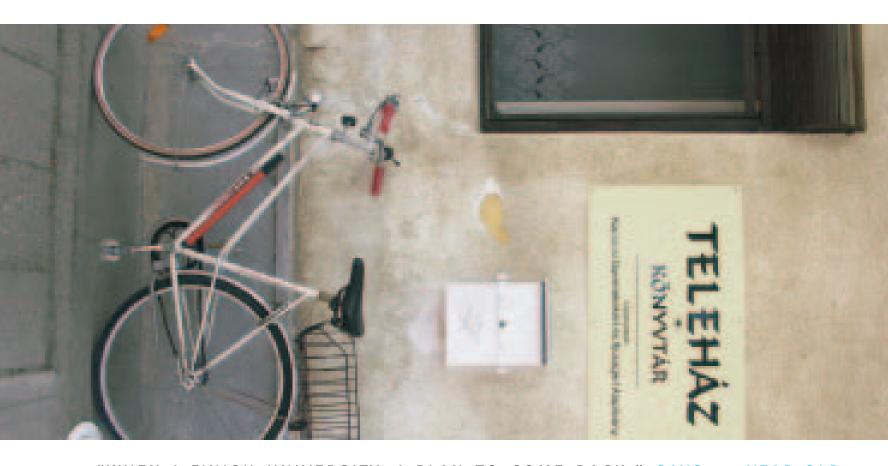
EXAMPLES FROM AROUND THE WORLD SHOW THAT TELECENTRES EMPOWER COMMUNITIES IN A MYRIAD OF WAYS, PROVIDING A PLATFORM FOR CIVIC ENGAGEMENT. MAKING LINKS ACROSS SOCIAL AND ECONOMIC DIVIDES. DELIVERING COMMUNITY SERVICES, DRAWING YOUTH BACK INTO COMMUNITY LIFE AND GIVING THEM NEW OPPORTUNITIES. CAPTURING COMMUNITY HISTORY.

THE INSPIRING THING IN ALL OF THIS IS THAT MOST COMMUNITIES DON'T JUST ACCEPT TECHNOLOGY "OUT OF THE BOX." RATHER, THEY BEND THE TOOLS TO MEET THEIR OWN LOCAL NEEDS. THEY USE COMPUTERS AND THE INTERNET IN WAYS THAT WERE NEVER IMAGINED BY THEIR INVENTORS.

AS THIS GRASSROOTS INNOVATION TAKES PLACE, COMMUNITIES GET STRONGER AND MORE CONNECTED TO EACH OTHER. THEY ENTER INTO CONVERSATIONS ABOUT WHAT'S NEEDED TO IMPROVE LOCAL QUALITY OF LIFE, AND EXPERIMENT TO SEE WHAT WORKS. THEY WORK, PLAY AND LEARN TOGETHER AS THEY MAKE THEIR TELECENTRES COME ALIVE, ARRIVING IN THE END AT SOMETHING USEFUL AND ENDURING—EVEN IF IT DOESN'T OUITE LOOK LIKE WHAT THEY IMAGINED IN THE FIRST PLACE.

AS A COMMUNITY TECHNOLOGY LEADER IN CHILE ONCE SAID, "TELECENTRES ARE ABOUT BUILDING SOCIAL CAPITAL." LOOKING AT THE EXPERIENCE AROUND THE WORLD, THE DESIRE TO BUILD THAT SOCIAL CAPITAL IS SOMETHING MOST TELECENTRES HAVE IN COMMON.





"WHEN I FINISH UNIVERSITY, I PLAN TO COME BACK," SAYS 17-YEAR-OLD HORVÁTH ZSÓFIA, A STUDENT FROM THE SMALL HUNGARIAN VILLAGE OF ALSÓMOCSOLÁD. "I LIKE LIVING IN THE VILLAGE VERY MUCH-THIS IS WHERE MY ROOTS ARE."

HUNGARY: THE SOUL OF THE VILLAGE

ZSÓFIA'S VILLAGE IS LIKE COUNTLESS OTHERS ACROSS HUNGARY. RURAL AND ISOLATED, ALSÓMOCSOLÁD HAS FACED MANY CHALLENGES SINCE THE FALL OF COMMUNISM. WITH LIMITED RESOURCES AND SMALL POPULATIONS, IT'S DIFFICULT FOR HUNGARIAN VILLAGES TO COMPETE WITH THE ALLURE OF BIG CITIES. COMPLICATING MATTERS IS THE FACT THAT HUNGARIAN VILLAGES HAVE NO TRADITION OF SELF-GOVERNANCE; NEARLY HALF OF HUNGARY'S VILLAGES LACK THEIR OWN GOVERNMENT SERVICES.

BUT THE TRANSITION FROM COMMUNISM TO CAPITALISM HAS ALSO LED TO OPPORTUNITIES.

SINCE 1994, HUNGARY HAS ENGAGED IN A NATIONAL EXPERIMENT TO DEPLOY TELECENTRES, KNOWN HERE AS TELECOTTAGES, THROUGHOUT THE COUNTRY, PARTICULARLY IN RURAL VILLAGES. WITH MORE THAN 500 TELECOTTAGES AND THOUSANDS MORE PLANNED, HUNGARY IS DEMONSTRATING HOW TELECENTRES CAN SERVE AS THE CATALYST FOR EMPOWERING COMMUNITIES.

Hungary is a nation of villages: more than 3,000 in all. Historically agricultural and self-sufficient, these villages are experiencing flux. Traditional farming jobs that once required many unskilled workers are now being automated. Skilled residents are leaving for the bigger cities. Despite these changes, there's a passion that can be felt in Hungary's villages—a passion for prosperity and self-sufficiency, while retaining a quality of life that simply can't be found in places like Budapest. And they're embracing telecentres as a tool to achieve this goal.

Much of the credit goes to Gáspár Mátyás of the European Union of Telecottage Associations, a community activist often called the father of Hungary's telecottage movement. An energetic man with more than a passing resemblance to a middle-aged Albert Einstein, Gáspár has expanded the movement from a single telecottage in the village of Csákberény to a program that's expanding the telecentre movement to every community, nationwide.

"Our general goal is to have a telecentre in every small community: not just each village, but at the neighbourhood level," Gáspár explains. "The government goal is to have 3,500 access points across the country by the end of 2006."

Here in Hungary, local residents refer to their telecentre as a *telehaz* (telehouse) or a *telekucko* (telecottage). Generally, a *telehaz* is larger than a *telekucko*. In Hungarian, the word *tele* also means "whole" or "complete," which exemplifies the holistic nature of Hungarian telecottages. More than just somewhere to check e-mail, they're the civic, social and cultural hubs of the community: vibrant places where residents get things done.

The village of Alsómocsolád was one of the first Hungarian settlements to open a telecottage. The telecottage resides in a beautiful wooden building that also houses the town hall and the community centre. With only 300 residents, Alsómocsolád lacked many local government services, including a post office. So the telecottage contracted with the national postal system to serve the community. Through this partnership, the public got access to postal services, while the telecottage got funding to support other services, such as youth technology training and small business assistance.

Key to Hungary's success has been treating telecottages as both a network of community institutions and a national movement. Individually, telecottages might find it hard to offer certain services or sustain themselves. So they've begun using a national portal, ITmentor.hu, to share tools and resources built upon a common infrastructure. They also partner with each other to launch new community services that an individual telecottage might lack the resources to offer publicly.

"One of the most important things in the telecottage movement is that a telecottage cannot become sustainable on its own," Gáspár notes. "The strongest feature is that it's part of a network."

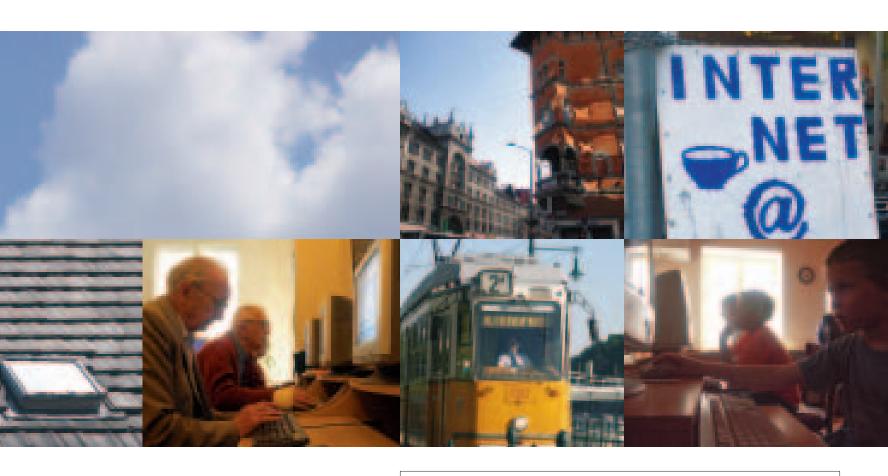
Other villages, such as Kajdacs, have benefited immensely from this growing network. Located in a fertile, wine-growing region, Kajdacs and several surrounding villages have all opened telecottages. They use each other's capacities to provide public services, train staff and secure funding. Kajdacs and the nearby village of Györköny will soon offer employment counseling via videoconferencing, thanks to a new contract with the regional government. For the first time, local residents won't have to travel great distances to take advantage of services once available only at the county seat.

"For the life of the community, it's very important that the telecottage be very open and host all types of programs, regardless how many people participate—including activities that aren't focused on technology," says telecottage director Boda János. "Then, the community will feel they have ownership of it. If it's just a place to play on computers, they won't feel that way."

For villages such as Kajdacs, Alsómocsolád and hundreds of others across Hungary, the local telecentre has become the community institution around which all civic, economic and cultural activities revolve. It's serving as the keystone for building a whole new infrastructure to provide services that will keep the community healthy and thriving.

"We believe the telecentre is the soul of the village," Boda concludes. "So as the needs of the village evolve, the telecentre evolves with them."



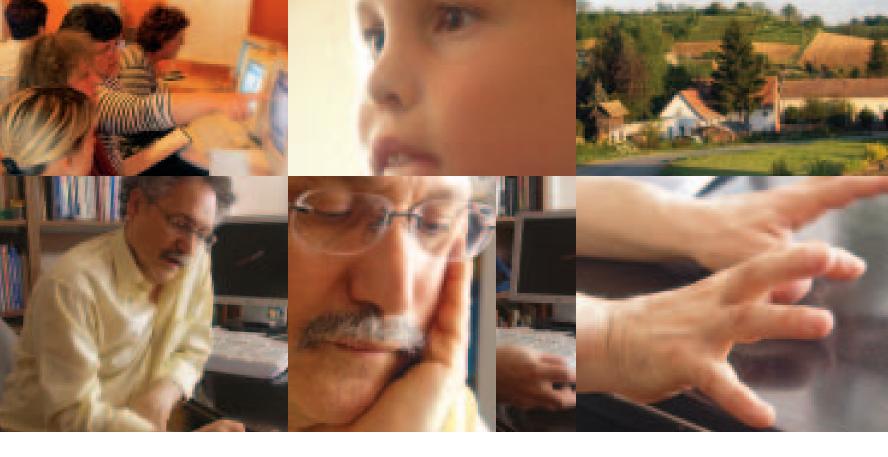


Hungary Statistics:

10 million Literacy: 99.4% Population:

Population 14 and under: 15.8% Population living below

Population growth rate: -0.26% the poverty line: 8.6% 5.9% Overall GDP: USD \$162 billion Unemployment: Per capita GDP: USD \$16,627 Internet users: 3,050,000 Life expectancy: 72.4 years Internet penetration: 30.2%



"OUR GENERAL GOAL IS TO HAVE A TELECENTRE IN EVERY SMALL COMMUNITY –

NOT JUST EACH VILLAGE, BUT AT THE NEIGHBOURHOOD LEVEL," GÁSPÁR

EXPLAINS. "THE GOVERNMENT'S GOAL IS TO HAVE 3,500 ACCESS POINTS

ACROSS THE COUNTRY BY THE END OF 2006."



SÃO PAULO, BRAZIL: AN OPEN DOOR TO COMMUNITY DEVELOPMENT

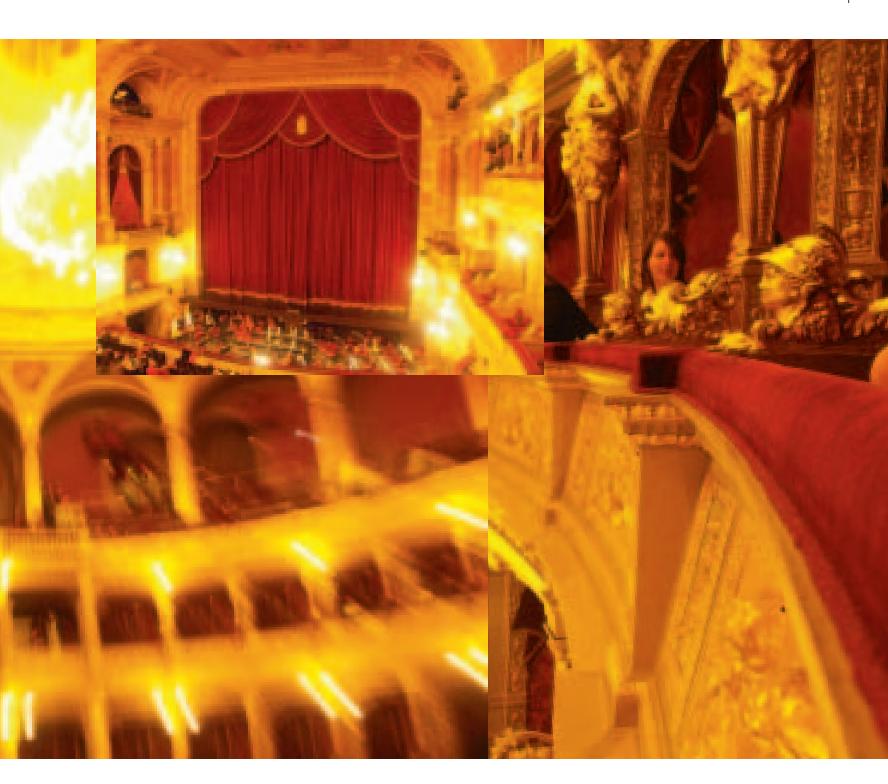
"SINCE THE TELECENTRE OPENED, I'M NO LONGER OUT ON THE STREETS," SAYS 13-YEAR-OLD LUIZ CARLOS DOS SANTOS, WHO LIVES IN ONE OF THE MORE VIOLENT REGIONS OF SÃO PAULO—A SLUM CALLED HELIÓPOLIS. "WE HAD NO LEISURE, NO FUN, NO PLACE TO PLAY AND MEET FRIENDS HERE IN THE COMMUNITY."

"NOW WE HAVE THE TELECENTRE," HE CONTINUES. "I GO
THERE EVERY DAY TO MEET MY FRIENDS AND LEARN NEW
THINGS. I DON'T HANG OUT IN THE STREETS ANYMORE."

LOCATED MAINLY IN POOR COMMUNITIES PLAGUED BY VIOLENCE, THE 128 TELECENTRES RUN BY THE SÃO PAULO CITY GOVERNMENT REPRESENT AN OPEN DOOR TO COMMUNITY DEVELOPMENT AND A SAFE PLACE WHERE PEOPLE CAN MEET, LEARN TOGETHER AND GAIN ACCESS TO LOCAL GOVERNMENT SERVICES.

THE COURSES AND CULTURAL ACTIVITIES OFFERED AT THE TELECENTRES ARE A WAY OUT OF THE BOREDOM THAT LEADS SO MANY YOUNG PEOPLE TO INVOLVEMENT WITH DRUGS. TELECENTRES ARE GIVING THEM A SENSE OF COMMUNITY FOR THE FIRST TIME IN THEIR LIVES. FOR LUIZ AND THE MANY OTHER KIDS USING THE TELECENTRES, THE COMMUNITY SERVICES PROVIDED THERE ARE GIVING THEM A NEW CHANCE TO COMPLETE SCHOOL, FIND A JOB AND MAKE PLANS FOR THE FUTURE.











CONNECTING

ISOLATED RURAL COMMUNITIES OFTEN LACK THE SERVICES AND OPPORTUNITIES THAT PEOPLE IN CITIES TAKE FOR GRANTED. HOSPITALS, LIBRARIES, BANKS AND GOVERNMENT AGENCIES CAN BE DOZENS—OR EVEN HUNDREDS—OF KILOMETRES AWAY. ACCESS TO JOBS, LEARNING OPPORTUNITIES AND EVEN BASIC INFORMATION IS OFTEN LIMITED.

INCREASINGLY, TELECENTRES PROVIDE AN OPPORTUNITY TO TAP INTO THESE SERVICES WITHOUT EVER LEAVING THE VILLAGE.

BANKING, LIBRARY AND GOVERNMENT SERVICES ARE ALREADY AVAILABLE THROUGH TELECENTRES IN SOME COUNTRIES, AND THEIR NUMBER IS GROWING. IN PLACES WITH MORE INFORMAL OR MARGINAL ECONOMIES, MICROCREDIT AND RURAL ATM SERVICES ARE EVEN POPPING UP. ADVANCES IN LOW-BANDWIDTH VIDEO AND TELEMEDICINE ARE MAKING IT POSSIBLE FOR VILLAGERS TO ACCESS DOCTORS FROM A DISTANCE.

OFFERING VITAL SERVICES THROUGH TELECENTRES MEANS REDUCED TRAVEL TIME AND DRAMATICALLY IMPROVED ACCESS FOR RURAL RESIDENTS, EVEN WHEN THEY CAN'T AFFORD THEIR OWN COMPUTERS AND INTERNET ACCESS.

TELECENTRES CAN ALSO PROVIDE MORE HUMAN CONNECTIONS TO THE OUTSIDE WORLD: CONNECTIONS TO RELATIVES WHO HAVE MOVED TO THE CITY OR AROUND THE GLOBE. IN SMALL COMMUNITIES THE WORLD OVER, PEOPLE OFTEN LEAVE FOR JOBS AND EDUCATION. KEEPING IN TOUCH WITH RELATIVES IN THE VILLAGE— AND TRANSFERRING FUNDS BACK TO THEM—HAVE ALWAYS BEEN A DIFFICULT AND COSTLY MATTER. TELECENTRES MAKE THIS KIND OF CONNECTION MUCH EASIER BY PROVIDING EVERYTHING FROM SIMPLE E-MAIL TO AFFORDABLE FINANCIAL REMITTANCE SERVICES.

CLEARLY, IT'S NOT THE COMPUTER IN THE TELECENTRE THAT OFFERS SO MUCH BENEFIT TO ISOLATED COMMUN-ITIES. RATHER, IT'S THE HUMAN CONNECTIONS MADE POSSIBLE BY THE TELECENTRE, NETWORKED TO THE ENTIRE WORLD.





"AT MY AGE, THIS IS JUST LIKE LEARNING TO SPELL AGAIN-IT'S LIKE LEARNING EVERYTHING ANEW," SAYS MARGARITA NEUCULEN PROUDLY.

MARGARITA IS A MACHI-A MAPUCHE MEDICINE WOMAN AND PRIESTESS-AND FOR THE PAST TWO YEARS, AN ENTHUSIASTIC PATRON OF THE TELECENTRE IN PUERTO SAAVEDRA, CHILE.



CHILE: ISOLATED, BUT NEVER ALONE

WHEN MARGARITA VISITS THE TELECENTRE TO CHECK HER E-MAIL AND HELP HER CHILDREN WITH THEIR HOMEWORK, SHE'S WELCOMED BY LIBRARIAN EUGENIA VIVANCO, THE TELECENTRE MANAGER. THEY SIP THEIR TEA AND CHAT BY THE WOOD STOVE THAT HEATS THE TELECENTRE. WHETHER TRAVELING ON FOOT, BY BUS OR BY OXCART, THE REUNION IS ALWAYS CHEERFUL. IN A COMMUNITY AS ISOLATED AS PUERTO SAAVEDRA, REUNIONS SUCH AS THEIRS ARE WHAT KEEP THIS COMMUNITY TOGETHER.

Puerto Saavedra is a town of 3,000 residents, mostly farmers, fishermen and artisans. It's located 1,000 kilometres from Santiago in Chile's poorest region, Araucanía. The area is home to a large number of Mapuche villagers, who are indigenous to Southern Chile.

In 1960, the town was devastated by an earthquake and tsunami, which took many lives and changed the town forever. Disasters are particularly cruel here: the closest hospital is 200 kilometres away, as are most regional government offices. Today, it's still possible to spot the submerged church tower offshore; a few trees can still be seen above the water. When the tsunami hit Southeast Asia in December 2004, villagers went to the telecentre and watched it unfold in dismay: the same monster had attacked once more in another part of the world.

The telecentre at Puerto Saavedra is one of 32 launched by Chile's Community Information Network across Araucanía. Promoted by the Universidad de La Frontera de Temuco since 1997 and headed by Rodrigo Garrido and Manuel Morales, the network is a pioneering community technology project in Chile.

It furnishes equipment and connectivity, offers training, supplies resources and supports the local telecentre managers, helping connect Araucanía to the rest of the country.

Manuel and Rodrigo travel the rain-soaked roads of Araucanía, visiting each telecentre. Though weary and drenched after many hours traveling, they chat at length with staff, who welcome them affectionately. "Thanks to them, we are what we are," Eugenia boasts.

Things are not always easy, but the team never stops dreaming. They'd like to implement a satellite system to help fishermen spot schools of fish, as well as develop a telemedicine project so the villagers can see their relatives in hospital. Villagers hope to develop online content in the Mapuche language so the technology better serves the needs of their culture.

The first tool at Puerto Saavedra's telecentre was not a computer: just a photocopier in the library. Eventually the first computer arrived; soon the telecentre bubbled with activity. Eugenia has managed to draw an initially reluctant community towards it. "We decided to train the *lonkos*, the Mapuche community chiefs, first because they would spread curiosity. The rest would lose their fear and then approach us."

The town is grateful for her work. "She takes care of us really well," María del Carmen Nahuel says. "She has never discriminated against anyone whether the person is Mapuche or not... And that is what we want, because we don't want there to be differences."





Adopting new technology has not been easy for local residents. Accustomed to working in the fields, handling ploughs and shovels, they find this machine of plastic, metal and glass daunting. "I thought I'd damage the keyboard if I touched it, that my hands were too heavy due to working on the loom," says artisan Ester Llancaleo.

Rosa Porma Millavil teaches Mapudungun, the Mapuche language, and is just starting to learn how to use computers. "I wanted to learn, but I was afraid I would break something," she says, laughing. "The first time I touched the machine I was perspiring. I ended up dripping wet, I was so nervous. My brain, my muscles, hurt so much that I was stiff and had to go to bed."

But the will to learn is great. And Eugenia motivates them, as Rosa explains. "She says that I'm a good student, because I laugh. If I make a mistake, I laugh. I don't get cross. I'm not ashamed."





Population:

16 million Population 14 and under: 25.2%

Population growth rate: 0.97% Overall GDP: USD \$169.1 billion Unemployment: Per capita GDP: USD \$10,700 76.58 years

Life expectancy:

Literacy: 96.2%

Population living below

the poverty line: 20.6% 8.5% Internet users: 4 million Internet penetration: 25.8%

Telecentro Puerto Saavedra



"I move from my pots and pans to poetry on the Internet," explains poet Doña Berta. She spends her time at her local telecentre writing poetry, after completing her many domestic chores. Her feelings are like those of many women, both Mapuche and Chilean, who've found a window for growth through their telecentre.

Most of the people using the local telecentres are women. They are proud of their culture and transmit it to their children, speaking in Mapudungun. They perform their religious ceremonies and work on their handicrafts, but they are determined not to live in the past. There is so much to be gained from connecting to the rest of the world.

"Culture is not lost with the computer," adds
Margarita Neuculen. "It is not lost with electricity,
or with television. Because you carry culture within
yourself. I am proud of being a Mapuche. Even so,
I want to continue learning how to use the computer
and to communicate with the world, but not because
of this will I stop being a Mapuche."

"Traditions are carried within," she concludes. "You carry them in your piuque: your heart."







N-LOGUE: BRINGING TELEMEDICINE TO INDIA'S RURAL VILLAGES, ONE KIOSK AT A TIME

IN THE SOUTH INDIAN VILLAGE OF THIRUKALAKODI, 21-YEAR-OLD BHARTISALA HAS BECOME A MEDICAL LIFELINE FOR THE LOCAL COMMUNITY. THE VILLAGE, IN A DISTANT CORNER OF TAMIL NADU STATE, HAS NO DOCTOR OR HOSPITAL; DISTANT TRAVEL ON LOCAL ROADS IS DIFFICULT. THANKS TO BHARTISALA'S INTERNET KIOSK AND ITS NEW TELEMEDICINE SERVICE, THE DISTANCE BETWEEN PATIENTS AND SUCCESSFUL MEDICAL DIAGNOSES HAS SHRUNK DRAMATICALLY.

BHARTISALA OPERATES A KIOSK AFFILIATED WITH N-LOGUE COMMUNICATIONS, ONE OF THE MOST SUCCESSFUL RURAL TECHNOLOGY COMPANIES IN SOUTH ASIA. USING FIXED WIRELESS TECHNOLOGY, N-LOGUE HAS DEPLOYED INTERNET KIOSKS IN MORE THAN 2,000 RURAL VILLAGES ACROSS INDIA, IN PARTNERSHIP WITH LOCAL ENTREPRENEURS.

BHARTISALA IS ONE OF THE FIRST TELECENTRE OPERATORS IN THE N-LOGUE NETWORK TO PARTICIPATE IN A GROUNDBREAKING TELEMEDICINE PROGRAM. SHE AND SEVERAL OTHER OPERATORS IN TAMIL NADU HAVE INSTALLED REMEDITECHNOLOGY. A TOOL THAT COLLECTS A PATIENT'S

BLOOD PRESSURE, HEART RATE AND OTHER VITAL FUNCTIONS, THEN TRANSMITS THEM OVER THE INTERNET. EACH DAY, A DOCTOR IN THE CITY OF THIRUPPATUR CONSULTS WITH BHARTISALA'S CLIENTS ONLINE, COLLECTING IMPORTANT MEDICAL DATA THROUGH THE REMEDI DEVICE. BHARTISALA GETS AROUND FIVE VILLAGERS A DAY COMING TO THE INTERNET KIOSK SPECIFICALLY FOR THESE MEDICAL CONSULTATIONS.

THIS SYSTEM, WHEN DEPLOYED NATIONALLY, WILL HELP RURAL VILLAGES GAIN INSTANT ACCESS TO DOCTORS, EVEN IF THEY'RE DOZENS OF KILOMETRES FROM THE NEAREST MEDICAL CLINIC. "THE NEXT KEY CHALLENGE IS TO GET MEDICINE DELIVERY ARRANGED INTO THE VILLAGE," ADDS N-LOGUE CEO P. G. PONAPPA.



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LEARNING

THE INTERNET REVOLUTION HAS CHANGED THE NOTION OF "BASIC SKILLS" AT A FUNDAMENTAL LEVEL. IN DEVELOPED COUNTRIES, THAT CHANGE IS QUITE OBVIOUS—TO BE PRODUCTIVE, YOU NEED TO POSSESS A RANGE OF SKILLS TO USE TECHNOLOGY EFFECTIVELY, WHETHER YOU'RE A TEACHER, A MECHANIC OR A DOCTOR. INFORMATION TECHNOLOGY IS SO ENTWINED IN MODERN-DAY LIFE THAT PEOPLE LACKING THESE TWENTY-FIRST CENTURY LITERACY SKILLS ARE TRYING TO SUCCEED WITH ONE HAND TIED BEHIND THEIR BACK.

IN DEVELOPING ECONOMIES, THE NEED FOR THESE SKILLS MAY NOT SEEM AS OBVIOUS, BUT THAT DOESN'T MEAN THEY'RE UNNECESSARY. FARMERS BENEFIT FROM ACCESSING NETWORKS WITH THE LATEST MARKET PRICES. YOUNG PEOPLE WITH OTHERWISE LIMITED JOB PROSPECTS ATTAIN SKILLS THAT WERE UNHEARD OF JUST A FEW YEARS AGO, ALLOWING THEM TO BECOME ENTREPRENEURS OR TO SEEK NEW TYPES OF EMPLOYMENT. COUNTRIES BECOME COMPETITIVE ON A GLOBAL SCALE BECAUSE A CRITICAL MASS OF THEIR POPULATION POSSESSES THE TECHNICAL KNOW-HOW TO OFFER A RANGE OF MARKETABLE SERVICES.

WHAT IS AMAZING ABOUT TELECENTRES IS THAT
THEY ENGAGE PEOPLE AND COMMUNITIES ACROSS
THIS WHOLE LEARNING CURVE. TODAY, YOU CAN
FIND TELECENTRES THAT OFFER COURSES IN ALMOST
ANYTHING THAT INTERSECTS COMMUNITY AND
TECHNOLOGY: COMPUTER BASICS, JOB SKILLS,
SMALL BUSINESS ENTREPRENEURSHIP AND MEDIA
LITERACY. STUDENTS OF ALL AGES ARE USING
TELECENTRES AS DISTANCE LEARNING CENTRES,
CONNECTING TO EDUCATIONAL OPPORTUNITIES THAT
WOULD OTHERWISE BE UNAVAILABLE LOCALLY.

PEOPLE OF ALL WALKS OF LIFE COME TO TELECENTRES WITH A SHARED VISION: TO IMPROVE THEMSELVES AND CREATE NEW OPPORTUNITIES FOR THEIR FAMILIES.

TELECENTRES MAY BE FULL OF COMPUTERS, SCANNERS AND OTHER GADGETS, BUT DON'T BE DECEIVED.
THEY ARE LOCAL LEARNING HUBS FOR PERSONAL DEVELOPMENT—KNOWLEDGE CENTRES FOR THOSE WHO OTHERWISE MIGHT HAVE NOWHERE ELSE TO TURN.



"IF I HAD A COMPUTER, I WOULD USE IT ALWAYS," SAYS LITTER SILATIKOUN,
AN 18-YEAR-OLD STUDENT IN LUANG PRABANG, LAOS, AND A REGULAR
VISITOR AT THE LOCAL TELECENTRE, E-WAY.

LAOS: LINKED FOR LEARNING

COMPUTER OWNERSHIP IS VERY LOW IN LAOS; ONLY 0.33%. THE TRANSPORTATION SITUATION IS ALSO QUITE DIFFICULT. ONLY A FEW YEARS AGO, THE JOURNEY FROM LUANG PRABANG TO THE LAOTIAN CAPITAL OF VIENTIANE—ONLY 367 KILOMETRES—TOOK A WEEK BY RIVER OR DAYS ON MUDDY ROADS. EVEN TODAY, LESS THAN 20% OF THE COUNTRY'S 24,000 KILOMETRES OF ROAD ARE PAVED, AND THERE IS NO RAILWAY. WITH A POPULATION OF ABOUT 5.6 MILLION, LESS THAN NEW YORK OR LONDON, LAOS HAS ONLY 15,000 INTERNET USERS AND 117,000 TELEPHONE LINES.

All of this explains why E-way is THE place to go for people like Litter Silatikoun. But why set up a telecentre in Luang Prabang specifically?

"One of the reasons that we located the telecentre in Luang Prabang was because people there were exposed to so many tourists. They see the tourists using cyber-cafés but they couldn't afford to do it themselves. The tourists and expatriates provide the example; the telecentre provides the means," says Sombath Somphone, head of the Participatory Development Training Centre (PADETC), the nongovernmental organization that manages the centre.

Luang Prabang is certainly a place foreigners are drawn to. It's a UNESCO heritage site full of Buddhist monasteries and an ambience unspoiled by time or foreign trade.

It is also a centre of learning that draws many young Laotians. Poor families from Northern Laos send their children to Luang Prabang to be educated in Buddhist monasteries.

E-way computer classes are often attended by groups of monks who need a computer-learning certificate to graduate from school.

It is this focus on learning that has become the most important component of the telecentre. E-way's training programs have proven to be so popular that local young people often find themselves on a waiting list.

"What makes the telecentre popular is that we allow time for

students and the public to come and practice in their free time, which is something no private training institutions allow," says Sombath. Affordability is another factor. Mahesh Uppal, an independent researcher, has found that "the centre has significant



revenue because its course fees are about 20% cheaper than those of similar private businesses."

E-way runs six, two-hour courses every weekday. These courses provide hands-on training in Microsoft Windows and Office tools. On the weekend, the centre also offers English classes for school children, using CDs such as Go-Go and Jumpstart. These courses give students a foundation for future computer training courses in English.

Women from the local community are also a key target group for E-way. "Women should be active and become modern by using IT and developing skills in new technologies," says Vinid Sengtianthr, a female computer trainer at the telecentre.

In addition to regular school students and monks, the centre also offers special training sessions for government officials. Courses for government officials integrate computer training with training in employment records, expenditure tracking, project funds accounting and writing official letters. More than 100 Luang Prabang district government employees have taken this training so far. "My colleagues recommended that I come





and learn to use computers here," said one welfare department employee. "They said that at E-way the instructor pays attention to students and teaches well."

While most people think "Internet access" when they hear the word telecentre, E-way has only limited Internet connectivity. The connection is over a dial-up telephone line and is very expensive to use. As a result, the telecentre is online only when required for training.

Lack of Lao language content on the Internet has also been a deterrent. Plans to create a website with local content for young people were delayed until 2003 because of the lack of a standard Lao font. Now, thanks to a Lao script for Windows developed by an Australian, E-way has a test site up and running (www.mahasan.com).

Despite limited resources, E-way has a program of "training the trainers." This program not only improves the quality of training at the centre, but also promotes local economic

> development and employment. "Out of the 15 people we've trained so far, three are still working with the centre. The other 12 have left the centre with better skills and are now working at other computer-related jobs. This has helped local businesses deal with a shortage of skilled people, which is a crisis in Laos."

A former E-way trainer points out that the telecentre passes on more than just computing skills. "I gained leadership, public relations

and teaching skills from E-way."

As the reach of the global knowledge revolution expands, access to training like this matters a great deal, even—or maybe especially—in Luang Prabang.





Laos Statistics:

Population: 5.6 million Literacy:

Population 14 and under: 41.6%

Population growth rate: 2.4% Overall GDP: USD \$11.3 billion

Per capita GDP: USD \$1,900 Life expectancy: 55 years

66.4%

Population living below the poverty line: 40% Unemployment: 5.7% Internet users: 15,000 Internet penetration: 0.3%

EGYPT: YOUTH CLUBS FOR TOMORROW'S LEADERS

SINCE 2001, THE EGYPTIAN GOVERNMENT HAS UNDERTAKEN A CAMPAIGN TO BRING TECHNOLOGY SKILLS TO THE COUNTRY'S YOUTH. IT HAS ESTABLISHED MORE THAN 1,000 *IT CLUBS* OFFERING A RANGE OF TRAINING OPPORTUNITIES FOR STUDENTS.

"WE WERE ONLY TAUGHT WITH BOOKS AT UNIVERSITY, NOT WITH COMPUTERS," SAYS RECENT GRADUATE MOHAMMED ABU BAKR. NOW AN ACCOUNTANT, HE'S ENROLLED IN A CLUB TO ENHANCE HIS COMPUTER SKILLS. "TAKING THIS

COMPUTERS FROM THE INSIDE OUT," EXPLAINS INSTRUCTOR MAHA MAHMOUD.

RECOGNIZING THAT THE CLUBS ARE AN INVESTMENT IN EGYPT'S FUTURE, THE GOVERNMENT OFFERS TRAINING FOR FREE; IT EVEN PAYS STUDENTS A STIPEND THROUGHOUT THEIR ENROLMENT. WHILE FUNDED BY THE GOVERNMENT, THE CLUBS ARE DESIGNED TO FUNCTION AS ENTERPRISES MANAGED BY NONPROFITS AND SMALL BUSINESSES. MANY STUDENTS RECEIVE EMPLOYMENT THROUGH THE CLUBS, GIVING THEM



V A L U A B L E B U S I N E S S EXPERIENCE.

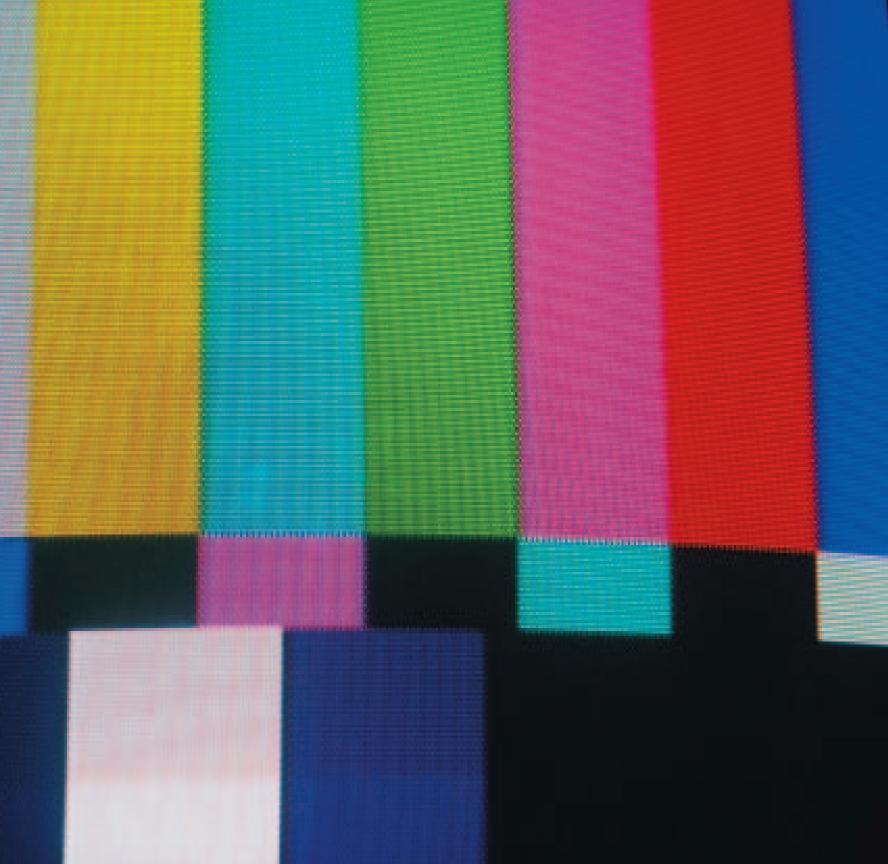
FOR ISOLATED COMMUNITIES, THE GOVERNMENT HAS LAUNCHED

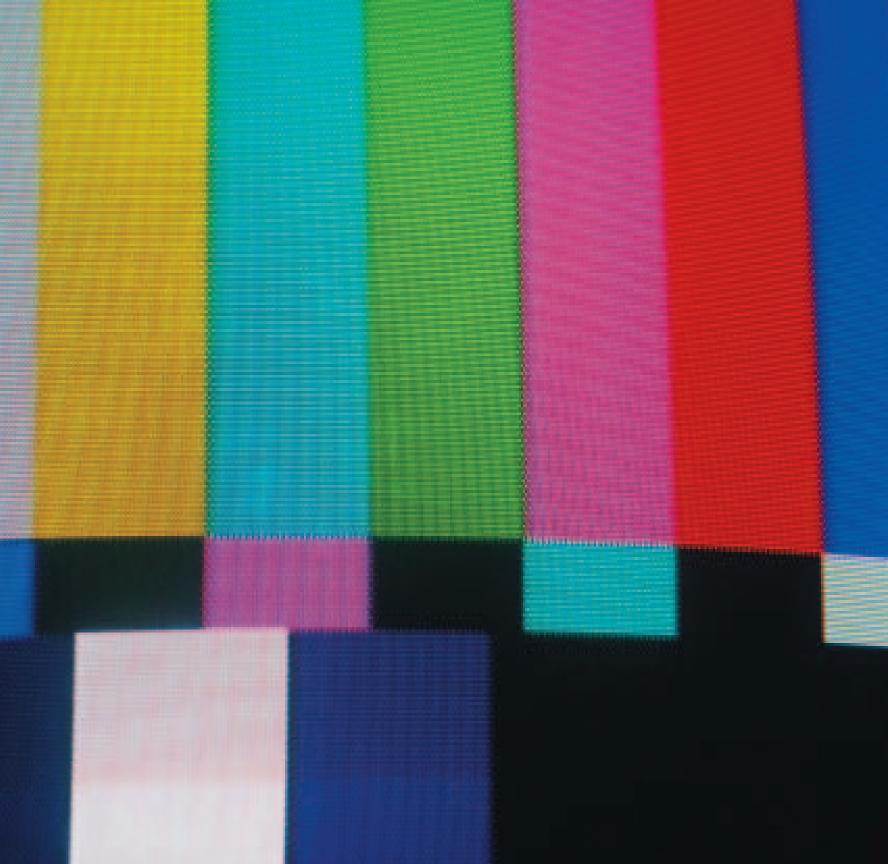
MOBILE IT CLUBS. TWO CONTAINER TRUCKS WITH SATELLITE INTERNET ACCESS AND COMPUTER LABS HAVE ALREADY VISITED 10 COMMUNITIES, EACH STAY GENERALLY LASTING SEVERAL WEEKS. MORE MOBILE UNITS ARE IN THE WORKS AS PART OF EGYPT'S VISION TO ENSURE ITS YOUTH WILL PROSPER IN THE TWENTY-FIRST CENTURY.

COURSE DOES NOT ONLY IMPROVE MY CHANCES OF FINDING WORK, IT ALSO IMPROVES THE SALARY I WILL BE OFFERED."

STUDENTS ENROLLED IN THE BASIC TRAINING COURSE LEARN A VARIETY OF SOFTWARE PACKAGES AND COMPUTER HARDWARE MECHANICS. "THE COURSE TEACHES STUDENTS TO DEAL WITH









NEW VOICES

IN THE LAST TWO DECADES, WE'VE SEEN THE ABILITY TO PRODUCE MEDIA MOVE FROM NEWSPAPER BUILDINGS AND BIG-CITY TELEVISION STUDIOS TO THE PERSONAL COMPUTER. IT'S NOTHING SHORT OF A MEDIA REVOLUTION: ANYONE, ANY COMMUNITY, ANYWHERE, CAN NOW PRODUCE MEDIA.

CERTAINLY, THIS REVOLUTION HAS USHERED IN A GREAT DEAL OF TRIVIAL, MUNDANE CONTENT. BUT IT HAS ALSO GIVEN COMMUNITIES THE ABILITY TO MIX, MASH AND MANUFACTURE MEDIA THAT MEETS LOCAL NEEDS— NOT THE NEEDS OF DISTANT EDITORS, PRODUCERS OR EXECUTIVES, NONE OF WHOM HAVE ANY STAKE IN A COMMUNITY'S WELL-BEING.

THE SIMPLEST LOW-TECH EXAMPLES OF LOCAL CONTENT PRODUCTION ARE THE UBIOUITOUS CHALKBOARDS AND NOTICE WALLS FOUND IN TELECENTRES AROUND THE WORLD. TELECENTRE STAFF AND VOLUNTEERS USE THESE SIMPLE TOOLS TO SHARE SMALL BITS OF KNOWLEDGE RELEVANT TO THE SURROUNDING COMMUNITY: CULTURAL ANNOUNCEMENTS, MEETING NOTICES, WEATHER, CROP PRICES AND HEALTH CARE ADVICE. THIS INFORMATION IS TRANSLATED INTO

A LOCAL LANGUAGE AND SIMPLIFIED, CREATING AN ON-THE-FLY COMMUNITY MEDIA SOURCE.

OF COURSE, MEDIA PRODUCED AT THE LOCAL TELECENTRE IS OFTEN MORE ELABORATE THAN IUST A CHALKBOARD, INCREASINGLY, COMMUNITY RADIO IS USED TO SHARE INFORMATION FAR BEYOND THE WALLS OF TELECENTRES. REACHING TO ISOLATED AREAS AND ACROSS THE LITERACY DIVIDE. COMMUNITIES PRODUCE VIDEO TO CAPTURE LOCAL STORIES AND FORGE CIVIC BONDS. EVEN MOBILE PHONES ARE BEING EMPLOYED TO LOCALIZE AND DISTRIBUTE KNOWLEDGE GATHERED AT TELECENTRES.

THE RESULT OF ALL THIS IS MORE THAN SIMPLY A RICHER, MORE RESPONSIVE LOCAL MEDIA LANDSCAPE. THIS REVOLUTION IN LOCAL MEDIA IS ALSO NURTURING POWERFUL NEW VOICES. PARTICULARLY AMONG THE YOUNG. THESE NEW VOICES ARE GAINING THE CONFIDENCE AND THE SKILLS NEEDED TO HELP COMMUNITIES PAINT A PICTURE OF THE FUTURE THEY WANT, AND SEIZE THE TOOLS NEEDED TO MAKE THAT FUTURE POSSIBLE.





"WHEN YOU LOOK AT PEOPLE IN POWER, THEY OFTEN GET OUT OF TOUCH WITH AVERAGE PEOPLE," SAYS SAMBATH BO, A FIRST-GENERATION

CAMBODIAN AMERICAN IN THE INDUSTRIAL TOWN OF LOWELL, MASSACHUSETTS. "IT'S IMPORTANT TO GET OUR VOICES HEARD TOO, BECAUSE IT'S A CONTRAST TO WHAT YOU HEAR FROM POLITICIANS AND THE MEDIA."







USA: MEDIA FOR THE PEOPLE, BY THE PEOPLE

FIVE YEARS AGO, SAMBATH BECAME INTERESTED IN VIDEO PRODUCTION AS A HIGH SCHOOL STUDENT. SHE BEGAN WORKING AT LOWELL TELECOMMUNICATIONS CORPORATION (LTC), A COMMUNITY MEDIA ORGANIZATION THAT EMPOWERS RESIDENTS TO PRODUCE THEIR OWN TELEVISION AND INTERNET CONTENT. NOW STUDYING AT THE LOCAL POLYTECHNIC, SAMBATH IS DIRECTING LIVE TELEVISION COVERAGE OF THE LOWELL WATER FESTIVAL, ONE OF AMERICA'S LARGEST SOUTHEAST ASIAN FESTIVALS.

"WITH CAMBODIAN PEOPLE, IT'S OFTEN HARD FOR US TO WORK TOGETHER GIVEN OUR RECENT HISTORY," SHE CONTINUES, NOTING THE CIVIL WAR THAT CAUSED HER PARENTS TO FLEE THE COUNTRY. "BUT HERE IN LOWELL WE ALL GET TO PRODUCE OUR OWN TV SHOWS, WORK TOGETHER AND PUT AWAY OUR DIFFERENCES."

"WE DEFINITELY NEED TO COMMUNICATE MORE. AND HAVING OUR OWN TELEVISION PROGRAMS, YOU GET TO SEE PEOPLE OPEN UP MORE THAN EVER BEFORE."

Founded along the Merrimack River in the 19th century as a planned community for the textile mill industry, Lowell was once one of America's most prosperous towns. With the collapse of the mill industry in the early 20th century, Lowell's status as the epicentre of America's Industrial Revolution collapsed with it. The city became synonymous with unemployment and stagnation, representing hundreds of American communities experiencing economic turmoil.

In recent years, Lowell has started to revitalize. Capitalizing on its picturesque location and historic mills, it became the first US city designated as a national historic park. Meanwhile, Lowell's population changed as well. It's now one of the most diverse medium-sized cities in America, with populations from Latin America, Africa and Southeast Asia, including the nation's second-largest Cambodian community.

Serving this diverse population is one of America's most successful community media organizations, LTC. Founded in

1992, LTC provides residents with an extraordinary range of media services, from broadcast facilities and production training to public Internet access and Web





hosting. Though the US has one of the largest populations of media consumers, only a fraction of Americans produce their own local content. LTC is part of a growing movement reversing that trend.

Walking into the 19th-century silk mill that LTC calls home, it's easy to get a feel for the place. In one lab, a muscular man with long dreadlocks edits a website. In another lab, a retiree teaches a group of residents the basics of digital storytelling, as a pair of Colombian teenagers reviews some new Spanishlanguage video footage. LTC is most certainly a telecentre, but the focus here goes beyond providing Internet access and basic skills. It's all about fostering creativity and crafting content that has a positive impact on the city.

"Part of our work is to demystify these tools," says LTC program director Felicia Sullivan. "I've seen individuals who thought they couldn't learn anything technical become community spokespersons. I've seen entire communities, such as the Cambodians, find their voice and create a public presence through the use of our resources."

LTC is a member-driven organization; more than 500 residents pay USD \$35 annually for the opportunity to use the telecentre, take courses and produce their own content. Over a



dozen courses are taught quarterly, and are available to members for \$10 each. Much of LTC's expenses are covered by a franchise agreement between the city and the local cable company that requires the company to contribute a small portion of its profits to community media.

"It's the best bargain in town," says Randy Mann, an unemployed swimming pool contractor who honed his media skills and is now a *vlogger*, posting short videos to a blog. "Last winter, I really immersed myself in this place, because there was a lot I wanted to learn—a lot I needed to learn. So I pay my 35 bucks, took some classes... And I was really good at it. I found out how media work; it just came natural to me."

For activists like Felicia, LTC serves as a counterbalance to traditional media, much of which fails to serve the needs of a diverse community. "So much of what we know about the world is mediated through television and computers," she says. "When these systems are completely controlled by people other than yourself, you lose the fundamental human capacity to express and communicate. Places like LTC put the knowledge and control back into the hands of communities. Using these tools in this manner is vital to a functioning, vibrant democracy."

"The production of content is far more than personal empowerment," Sullivan continues. "It's about engagement. People come together around these activities."

"Sometimes in life when you help people out, you end up learning a lot," adds LTC member Marybeth Norton. "You learn a lot about the community by giving back to it."

NEPAL: MEDIA PRODUCTION FOR COMMUNITY DEVELOPMENT

THE PALPA DISTRICT OF WESTERN NEPAL IS HOME TO ONE OF THE MOST AMBITIOUS TELECENTRE INITIATIVES IN SOUTH ASIA. ESTABLISHED IN 2003, THE TANSEN COMMUNITY MULTIMEDIA CENTRE TRAINS DISENFRANCHISED POPULATIONS TO PRODUCE CONTENT FOR THE INTERNET, TELEVISION AND COMMUNITY RADIO.

EVEN THOUGH THE NATIONAL GOVERNMENT HAS BANNED PRIVATE NEWS PRODUCTION, TANSEN STILL MANAGES TO CREATE LOCAL INFORMATION RESOURCES VITAL TO A COMMUNITY PLAGUED BY ILLITERACY AND UNDERDEVELOPMENT. THE CENTRE'S PRIMARY GOAL IS TO USE MEDIA AS A DYNAMIC DEVELOPMENT TOOL, BRINGING MORE VOICES AND IDEAS INTO THE COMMUNITY'S PUBLIC SPACE, WHILE PROVIDING POOR, MARGINALIZED YOUTH WITH NEW SKILLS. TANSEN HAS TRAINED OVER 350 VILLAGERS AS PRODUCTION TECHNICIANS, CONTENT PRODUCERS AND MEDIA PROFESSIONALS.

AS TANSEN'S STUDENTS LEARN PRODUCTION TECHNIQUES, THEY'RE EXPECTED TO KEEP DIARIES AND FIELD NOTES, REINFORCING THEIR LITERACY SKILLS. TANSEN ALSO EMPHASIZES TRAINING PEOPLE WITH DISABILITIES. "GIVING THEM TRAINING AND CAPACITY FOR EARNING THEIR LIVELIHOODS IS A BIG CHANGE FOR THESE PEOPLE," SAYS PROJECT RESEARCHER KARMA TSHERING.

ONE OF TANSEN'S MOST INNOVATIVE PROGRAMS IS A LIVE TELEVISION SHOW FEATURING INTERNET EXPERTS DEMONSTRATING ONLINE SKILLS. RESIDENTS USE TELEPHONES TO INTERACT WITH THE EXPERTS, ASKING QUESTIONS AND SEEKING ADVICE.

THE COMBINATION OF TRADITIONAL AND NEW MEDIA OPENS UP GREAT POSSIBILITIES FOR SMALL, RURAL VILLAGES LIKE TANSEN. IF ONE ISOLATED COMMUNITY IN NEPAL CAN CREATE SUCH ROBUST CONTENT, IMAGINE THE POSSIBILITIES IF OTHERS WERE GIVEN THE SAME CHANCE.



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OPPORTUNITY

WITHOUT QUESTION, TELECENTRES ARE ABOUT CREATING ECONOMIC OPPORTUNITY.

AT THE MOST BASIC LEVEL, TELECENTRES FOCUS ON IMPROVING THE LIVELIHOODS OF INDIVIDUALS, GIVING YOUNG PEOPLE THE COMPUTER AND LIFE SKILLS THEY NEED TO FIND JOBS. PROVIDING FARMERS WITH ACCURATE CROP PRICES SO THEY DON'T GET RIPPED OFF BY MIDDLEMEN. OFFERING LOCAL ENTREPRENEURS A WAY TO MAKE A LIVING BY OFFERING INFORMATION SERVICES TO THEIR NEIGHBOURS, DAY IN AND DAY OUT, TELECENTRES AROUND THE WORLD ARE HELPING INDIVIDUALS FIND AND SEIZE ECONOMIC OPPORTUNITY.

OF COURSE, COMMUNITIES CHANGE AS THE LIVELI-HOODS OF THEIR MEMBERS CHANGE AND IMPROVE. SMALL-SCALE INFORMATION ENTREPRENEURS DON'T **IUST SELL TO NEIGHBOURS—EVENTUALLY. THEY ALSO** HIRE THEM. A SKILLED LOCAL LABOUR FORCE ALSO ATTRACTS INVESTMENT FROM OUTSIDE. CREATING NEW BUSINESSES AND ATTRACTING MORE SKILLED WORKERS.

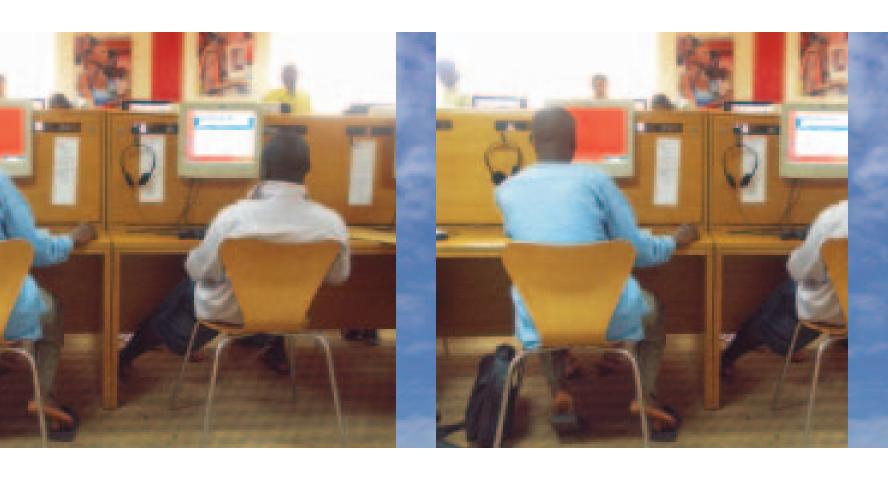
ADDED TO THAT, CRAFTSPEOPLE AND OTHER SMALL PRODUCERS WHO GAIN A NEW PERSPECTIVE ON THE **OUTSIDE WORLD EVENTUALLY SEE THE POWER IN**

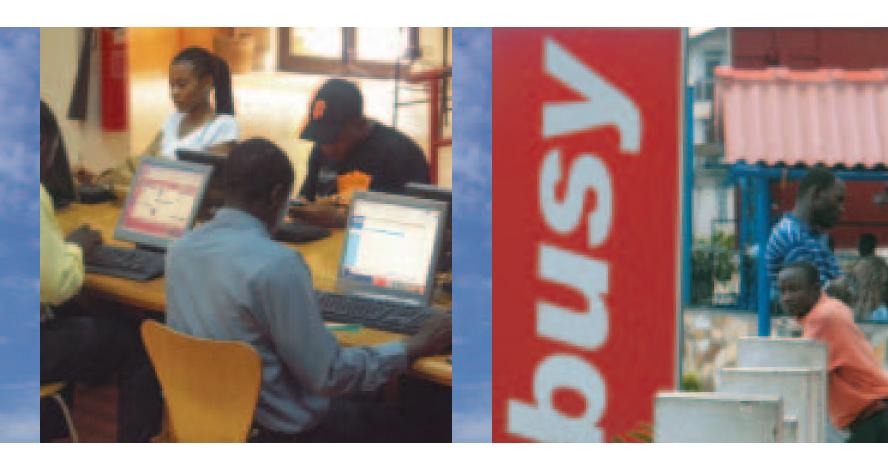
ORGANIZING AND MARKETING TOGETHER WITH THE AID OF TECHNOLOGY. PEOPLE WITH TECHNOLOGY SKILLS LEARN THAT THERE ARE WAYS TO PROVIDE SERVICES REMOTELY. TO ENGAGE IN KNOWLEDGE WORK WITHOUT LEAVING THE VILLAGE.

WITHIN THIS INTERSECTION OF INDIVIDUAL LIVELIHOODS AND LOCAL ECONOMIES LIES THE TELECENTRE—HELPING COMMUNITIES MOVE INTO THE KNOWLEDGE ECONOMY.

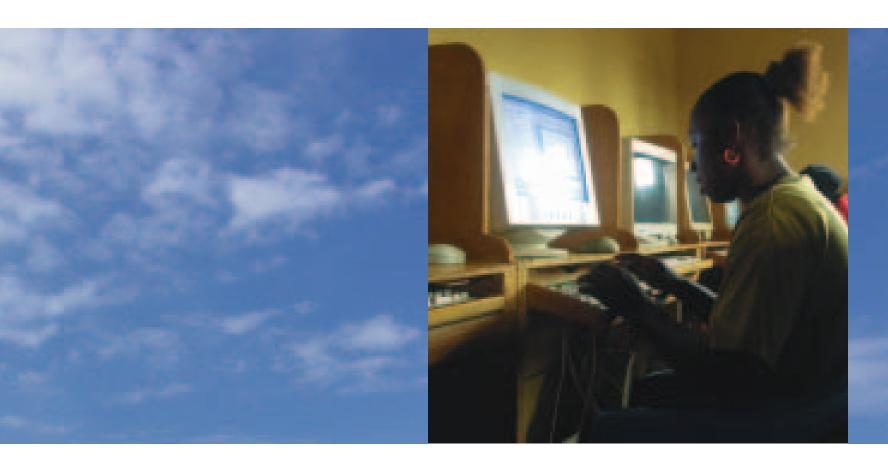
THIS KIND OF SHIFT—FROM AN EMPHASIS ON AGRICULTURE AND MANUAL LABOUR TO AN EMPHASIS ON SERVICES AND INFORMATION—HAPPENS SLOWLY, AND CAN OFTEN GO BADLY. BY FOCUSING ON BOTH THE INDIVIDUAL AND THE COMMUNITY, THE TELECENTRE INCREASES THE LIKELIHOOD THAT COMMUNITIES WILL MAKE THIS TRANSITION ON THEIR OWN TERMS, COMMUNITIES WILL SEE THE OPPORTUNITIES THAT MAKE THE MOST SENSE, SEIZE THEM AND MOULD THEM TO RESPOND TO COMMUNITY NEEDS.

CERTAINLY, CREATING A DISTRIBUTED, BOTTOM-UP ECONOMY IS A TRICKY MATTER. IT IS SOMETHING THAT REQUIRES A HOLISTIC MIX OF SKILLS, RESOURCES, BOLDNESS, NURTURING AND BIG-PICTURE THINKING. **IUST THE RIGHT ENVIRONMENT FOR A TELECENTRE** TO THRIVE IN.





"FIVE YEARS FROM NOW, WE HOPE TO BE PRODUCING SOFTWARE FOR CHILDREN ALL THROUGH AFRICA," SAYS NANA KWABENA SARPONG. "WE DON'T HAVE ANYTHING LIKE THAT HERE IN GHANA. WE'RE THE VERY FIRST IN WEST AFRICA DOING THIS."







Ghana Statistics:

Population: 21 million Literacy: 74.8%

Population 14 and under: 37.1%

Population growth rate: 1.25% Overall GDP: USD \$48.27 billion Unemployment:

USD \$2,300 Per capita GDP:

Life expectancy: 56 years

Population living below

the poverty line: 31.4% 20% 170,000 Internet users:

Internet penetration: 0.8%

GHANA: A BIG FUTURE FOR SMALL BUSINESS

NANA REPRESENTS A NEW GENERATION OF GHANAIANS TURNING TECHNOLOGY SKILLS INTO ECONOMIC OPPORTUNITY. GONE ARE THE DAYS WHEN GHANA WAS CONFRONTED BY INSTABILITY AND ECONOMIC STAGNATION. FROM THE CAPITAL ACCRA TO RURAL VILLAGES, COUNTLESS YOUNG PEOPLE ARE EMBRACING TECHNOLOGY AS A LAUNCHING POINT TO ECONOMIC SUCCESS. THEY JOIN A GROWING CIRCLE OF URBAN AND RURAL GHANAIAN TECHNOLOGISTS USING TELECENTRES AND OTHER INSTITUTIONS TO MAKE GHANA THE SILICON VALLEY OF WEST AFRICA.

Two years ago, Nana and his friend Joseph Garbrah Hooper were fresh out of university and working from home to start a software business called ChildNet. They began developing a child-friendly computer training program called *Squirrel's CompuTutor*, but worried about their lack of business expertise.

Soon, they read about a small business incubator initiative launched by the World Bank and **Busylnternet**, Accra's biggest cyber café. Before they realized it, they were one of the very first small businesses selected for the program.

For many people, "cyber café" conjures images of businesses full of people using computers for entertainment, rather than a hub for community development. "Busy," as locals affectionately call it, represents a new style of cyber café: a socially conscious one, rooted to both the community and the ideas that drive the telecentre movement. Every month, Busylnternet hosts numerous seminars and events, teaching technology to students and government ministers alike. It organizes cultural events, including regularly scheduled movies. And its small

business incubator is helping Ghanaian small businesses plant the seeds to grow their own high-tech empires.

For young companies like ChildNet, BusyInternet couldn't have come at a better time. The incubator provides ChildNet and other businesses with essential skills to improve their marketing, business plans and bookkeeping. The incubator has allowed ChildNet to start planning versions of its software in French and six local languages.

"Prior to this, we were working from home, which was very difficult," Nana explains. "With the BusyInternet image, it helps us push ourselves further. Everywhere you go and say that you're with the BusyInternet incubator,



people look at you differently, respecting it."

Training these small companies, as well as the general public, is a win-win for BusyInternet and its surrounding community. As the number of skilled people in Accra increases, so does the number starting their own ventures. The local economy grows and everyone benefits.

"It's great being able to watch the companies grow," observes BusyInternet director Estelle Akofio-Sowah. "It's one thing if you try to set up your own office and are trying to motivate your small team. But there are more than 100 people working here, all motivating each other." As a large city, Accra has the critical mass to support a thriving community technology business like BusyInternet. Rural villages, however, face greater challenges. With limited resources and infrastructure, many towns lack cyber cafés, let alone socially conscious ones. Villages like Patriensa, though, are demonstrating how it's possible to launch telecentres that successfully support economic development.

Patriensa's Asante Akim Multipurpose Community Telecentre has become a training hub in which young people from



surrounding villages learn to become tomorrow's technology entrepreneurs. Founded in 2000 by Dr. Osei Darkwa, the telecentre is opening new doors for residents. Students enrol in intensive training courses, learning almost everything there is to learn about a computer, from circuit boards to software. Many students enter the course with no previous computer skills, but graduate with the tools they need to start their own businesses.

To finance its courses, the telecentre has diversified its business. It refurbishes bicycles from around the world, making a small profit while giving farmers transportation to bring goods to market. The telecentre has even opened guesthouses in Patriensa and Accra, generating income to expand its programming.

Amoah Isaac Newton Kwaning, known as Newton to his friends, is one of the telecentre's students. With a name like his, it's no surprise that Newton's parents dreamed their son would have a career in science and technology. Growing up in a village with no computers though, Newton lacked the skills to create a technology business.

"Here, without computer skills, you either work in someone's store or you do something on your own," Newton explains. "Even if you graduate from high school you don't have the skills to work in a big company, so you must take one of these jobs. For me, it was bicycle repair work."

One day, Newton learned about the telecentre on a local community radio station. "Before then, I was thinking, 'How can I get into these machines?" " he recalls. "And then all of a sudden, the announcement came. So I had to stop everything I was doing so I could take the course."

Newton and his fellow students immerse themselves in their studies at the telecentre five days a week. For them, these skills aren't about learning how to use e-mail or make friends over the Internet. They're harnessing the building blocks to create a financial future for themselves and for Ghana—on their own terms.

"In five years' time, I'm planning to be a technician on my own, building computers and working on these machines," he says with quiet confidence. "I see a whole future of big things coming my way. Big things are going to happen."

Big things, perhaps, for Ghana as well.

TANZANIA: SENGEREMA TELECENTRE HELPS SMALL BUSINESSES FLOURISH

LIKE SO MANY COUNTRIES ACROSS AFRICA, TANZANIA HAS STRUGGLED TO PROVIDE INTERNET SERVICES TO ITS POPULATION; FEWER THAN THREE PEOPLE OUT OF EVERY 1,000 HAVE INTERNET ACCESS. BUT IN THE RURAL DISTRICT OF SENGEREMA, COMMUNITY MEMBERS BENEFIT FROM A SUCCESSFUL TELECENTRE THAT'S DEMONSTRATING IT'S POSSIBLE TO OFFER TECHNOLOGY RESOURCES THAT BENEFIT THE LOCAL ECONOMY IN A SUSTAINABLE MANNER.

LAUNCHED IN 2002, THE SENGEREMA MULTI-PURPOSE COMMUNITY TELECENTRE PROVIDES THE COMMUNITY WITH INTERNET TRAINING, COMPUTER-BASED SECRETARIAL SERVICES, ONLINE ACCESS AND DESKTOP PUBLISHING. UNLIKE MANY AFRICAN INTERNET FACILITIES, WHERE

GAMING PREDOMINATES, E-MAIL IS THE MOST POPULAR SERVICE, PARTICULARLY AMONG LOCAL ENTREPRENEURS WHO USE THE TELECENTRE AS AN EXTENSION OF THEIR BUSINESSES. THE TELECENTRE CHARGES A MODEST FEE FOR MOST OF ITS SERVICES; BECAUSE OF ITS PRICING STRUCTURE, THE TELECENTRE GENERATES ENOUGH PROFIT TO PAY FOR ITS BASIC OPERATIONS, INCLUDING ITS POPULAR COMMUNITY RADIO STATION.

RESIDENTS OF SENGEREMA HAVE MADE A STRONG COMMITMENT TO THE TELECENTRE. MORE THAN 17,000 USERS PASSED THROUGH THE CENTRE'S DOORS IN THE FIRST THREE YEARS ALONE. IN THE WORDS OF ONE COMMUNITY MEMBER, THE TELECENTRE "HAS BECOME PART OF THE LIFE OF SENGEREMA DISTRICT."

E-MAIL IS THE MOST POPULAR SERVICE, PARTICULARLY AMONG LOCAL ENTREPRENEURS WHO USE THE TELECENTRE AS AN EXTENSION OF THEIR BUSINESSES.

ENHANCING ECONOMIC OPPORTUNITY | 81

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NETWORKING

WHILE A MILLION FLOWERS BLOOM ACROSS THE TELECENTRE MOVEMENT, A OUESTION ARISES: HOW DO WE ENSURE THE MOVEMENT HAS THE MOST IMPACT?

WHAT DO TELECENTRES—AND THE MOVEMENT—LOOK LIKE WHEN IT BECOMES CHEAP ENOUGH, EASY ENOUGH AND USEFUL ENOUGH FOR EVERY SMALL COMMUNITY ON THE PLANET TO SET UP ITS OWN TELECENTRE? WHAT SERVICES AND INFRASTRUCTURE ARE NEEDED TO MAKE THIS HAPPEN? HOW DO WE GET TO THE TIPPING POINT?

OVER THE PAST FIVE YEARS, TELECENTRE LEADERS FROM AROUND THE WORLD HAVE BANDED TOGETHER TO ASK EXACTLY THESE QUESTIONS. CHATTING QUIETLY ON THE SIDELINES, SPEAKING LOUDLY ON PODIUMS, WRITING PLANS AND DECLARATIONS, THE CONVER-SATION IS THE SAME. THE ONLY WAY TO DO THIS IS TO DO IT TOGETHER. THE ONLY WAY IS TO EMBRACE THE POWER OF NETWORKS.

SLOWLY, NETWORKS OF TELECENTRES HAVE STARTED TO POP UP ALL OVER THE WORLD. SOME ARE FOCUSED ON INFORMATION SHARING AND CAMARADERIE AMONG PEOPLE WHO RUN TELECENTRES IN A PARTICULAR

REGION. OTHERS INVEST IN LEARNING, TRAINING AND KNOWLEDGE-SHARING, HELPING PEOPLE WHO RUN TELECENTRES BUILD ON EACH OTHER'S EXPERIENCE AND WISDOM, STILL OTHERS ARE FOCUSED ON PULLING TOGETHER BUNDLES OF COMMUNITY SERVICES—TELEMEDICINE, RURAL BANKING, LITERACY TRAINING—THAT NETWORK MEMBERS CAN EASILY, CHEAPLY AND (OCCASIONALLY) PROFITABLY ROLL OUT ON A GRAND SCALE.

IF THE TELECENTRE MOVEMENT IS TO REACH ITS FULL POTENTIAL, WE WILL NEED NETWORKS THAT DO ALL OF THESE THINGS—BRING TELECENTRES TOGETHER, INCREASE THEIR CAPACITY AND PROVIDE THEM WITH EASY-TO-OFFER SERVICES. WE NEED THESE NETWORKS TO WORK TOGETHER AS THEY TAKE ON DIFFERENT ROLES AND COVER DIFFERENT REGIONS. OTHERWISE. INDIVIDUAL TELECENTRES WILL END UP REINVENTING THE WHEEL AND WILL WASTE PRECIOUS RESOURCES RATHER THAN BUILDING ON EACH OTHER'S STRENGTHS.





"THERE ARE MANY SMALL, AFFIRMING FLAMES ALL OVER INDIA," EXPLAINS AGRICULTURAL SCIENTIST AND ANTI-POVERTY ACTIVIST M.S. SWAMINATHAN.

"HOW DO WE MAKE THEM INTO A FIRE THAT WILL SHINE FOR EVERYONE? THIS IS POSSIBLE THROUGH THE POWER OF PARTNERSHIP."



INDIA: A KNOWLEDGE REVOLUTION

PROFESSOR SWAMINATHAN, WHO BECAME FAMOUS FOR HIS WORK IN SUSTAINABLE AGRICULTURE DURING THE GREEN REVOLUTION, IS NOW SPEARHEADING INDIA'S EFFORTS TO ACHIEVE A NEW REVOLUTION: ONE THAT WILL BRING LOCAL KNOWLEDGE CENTRES WITH COMPUTERS AND INTERNET ACCESS TO HUNDREDS OF THOUSANDS OF RURAL INDIAN VILLAGES.

India is a veritable foundry for telecentre initiatives. From its mountainous north to the tropics of the south, India has seen countless programs employing technology as a tool for empowerment and development. And they're now joining forces to mobilize one of the most ambitious partnerships for telecentre development ever conceived: Mission 2007.

Beginning in the 1990s, the M.S. Swaminathan Research Foundation (MSSRF) deployed village-based telecentres, known as knowledge centres, in the fishing villages of Pondicherry and Tamil Nadu. Some of the knowledge centres taught local women to collect online weather data to keep their husbands safe as they went out to sea. Others emphasized training farmers in various technology skills so they could use the Internet to gain knowledge, improve agricultural techniques and achieve prosperity.

In other parts of the country, social enterprises like n-Logue and TARAHaat took a different approach, helping village entrepreneurs establish Internet kiosks that provide vital information services to isolated communities. Villagers would benefit from local access to these services while kiosk owners would build sustainable businesses, contributing to the local economy. Meanwhile, national and state governments have rolled out various knowledge centre initiatives, aimed at

everything from delivering government services to the remote northwest to building IT skills among the citizens of Kerala.

Wherever you look in India, you're bound to find someone creating, using or discussing technology as a tool for development. There's an understanding here that information and communications technologies can and will make a positive difference for India, at both a local and a national level. In a country with hundreds of thousands of poor, disconnected villages, technology is seen as a natural way to bring muchneeded services to rural villages while simultaneously expanding economic and educational opportunities. On a grander scale, India's growing position as a technology-savvy nation has made it an international player for information services and products. There is so much potential for technology to improve the lives of millions of Indians; the challenge is to bring these benefits to *all* Indians, bridging the poverty divide rather than widening it.

Recently, a consortium of technology activists, NGOs, business leaders and government officials joined together and committed to a bold vision: to create a national network of knowledge centres that would connect every Indian village. Known as Mission 2007, this partnership of more than 150 organizations seeks to connect over 600,000 villages by August 15, 2007, in conjunction with the 60th anniversary of India's independence. NGOs such as MSSRF and OneWorld India are playing a major role in the initiative, as are private sector entities such as Nascomm, Microsoft, HP and Tata Consultancy Services. Meanwhile, the Indian government is supporting this partnership by appropriating the equivalent of \$23 million in its 2005–2006 national budget.



"Nearly 700 million people in India live in the rural areas in 600,000 villages," explained Indian president Dr. A.P.J. Abdul Kalam during a July 2005 speech on Mission 2007. "Connectivity of village complexes providing economic opportunities to all segments of people is an urgent need to bridge the rural/urban divide, generate employment and enhance rural prosperity. We need to innovate to increase connectivity to the villages, making clusters out of them even while retaining their individualities."



The organizers of Mission 2007 recognize that it would be impossible to create a single, top-down telecentre model and deploy it nationwide. The success of diverse initiatives such as MSSRF, n-Logue, e-Choupal, government community information centres and many others has already proven that different communities require different solutions. Mission 2007 participants have essentially agreed to accept their various differences and approaches; rather than argue one method is better than others, they plan to encourage villages to embrace the telecentre model most suited to their needs.

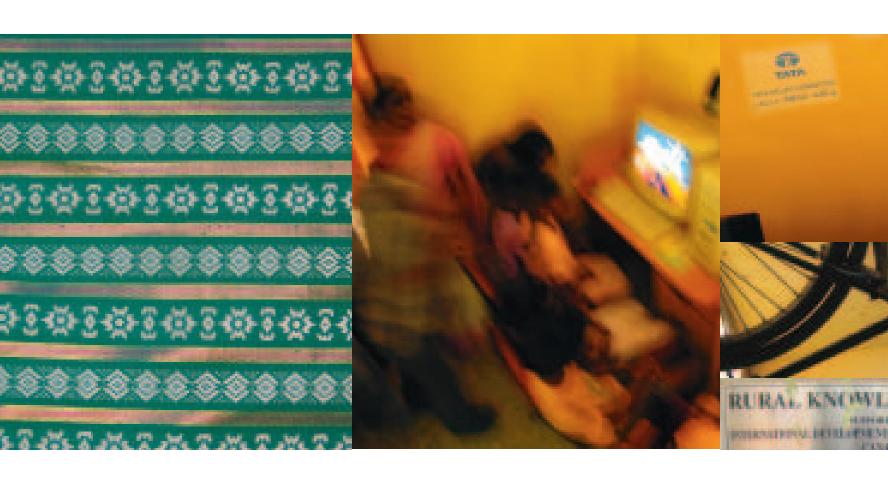
Individually, each of Mission 2007's partners has made an important difference in the lives of many Indians. But given the hundreds of thousands of villages that have yet to experience the benefits of the Information Age, there's a pressing need for all of these groups to work in concert with each other. As a national network, Mission 2007 will allow participating organizations to share resources while learning from each other's successes and failures.

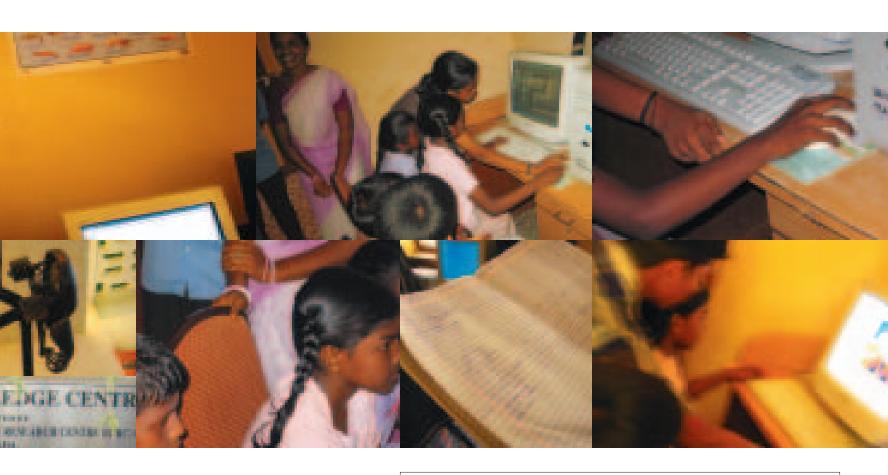
Of course, reaching 600,000 villages in two years is a challenging goal. The only way Mission 2007 will succeed is if all the parties involved are given the platform to pitch in whatever they can to achieve the common good. Going it alone simply isn't an option. "We don't need more pilot projects. We need a movement," says Professor Swaminathan, quoting Dr. A. Jhunjhunwala, a senior researcher at the Indian Institute of Technology Madras (IIT Madras) and a co-founder of n-Logue.

And the country is taking notice. Unlike many other nations, India has an interest in telecentres that reaches the highest levels of government. The media is also doing its part by treating India's digital divide as a major policy issue; newspapers, broadcasters and magazines have been covering Mission 2007 as a national effort. By embracing it as a common cause for all Indians, they're laying the groundwork for a national movement that stands to empower each one of India's 600,000-plus villages.

"Mission 2007 is a network of networks," adds Chandrashekhar, who owns a rural kiosk in Tamil Nadu. "We all have to work collectively to achieve the target. Even if we don't achieve the numbers by 2007, it will surely show the possibility all over the country."

It will certainly show the world as well.





India Statistics:

Population: 1.08 billion Literacy: Population living below

Population 14 and under: 31.2%

Population growth rate: 1.4%

Overall GDP: USD \$3.3 trillion Per capita GDP: USD \$3,100

Internet users:

39.2 million 64.35 years Life expectancy: Internet penetration: 3.6%

the poverty line:

Unemployment:

59.5%

25% 9.2%



"WE DON'T NEED MORE PILOT PROJECTS. WE NEED A MOVEMENT," SAYS PROFESSOR SWAMINATHAN, QUOTING DR. A. JHUNJHUNWALA, A SENIOR RESEARCHER AT IIT MADRAS AND A CO-FOUNDER OF N-LOGUE.



SOMOS@TELECENTROS: THE POWER OF CONNECTIONS

CREATED IN 1999 BY A COALITION OF ORGANIZATIONS DEDICATED TO STRENGTHENING CONNECTIONS BETWEEN TELECENTRES, THE SOMOS@TELECENTROS NETWORK LINKS TOGETHER THOUSANDS OF TELECENTRES ACROSS LATIN AMERICA AND THE CARIBBEAN.

EMBRACING TECHNOLOGY AS A TOOL FOR SOCIAL INCLUSION AND SUSTAINABLE DEVELOPMENT, SOMOS@TELECENTROS DEVELOPS CAPACITY-BUILD-ING TOOLS AND PROJECTS THAT HELP TELECENTRE OPERATORS IN THEIR DAILY ACTIVITIES, INCLUDING EVALUATION TOOLS, TELECENTRE MANAGEMENT RESOURCES AND EDUCATIONAL MATERIALS. ALL RESOURCES ARE SHARED THROUGH THE NETWORK'S WEBSITE, WWW.TELE-CENTROS.ORG.

"THIS NETWORK IS A PLACE WHERE WE CAN FIND SO MUCH SUPPORT AND SOLIDARITY," SAYS DERLLY PANTOJA, COORDINATOR OF COLOMBIA'S TELECENTRO AUTÓNOMA DE OCCIDENTE. "IT'S A WONDERFUL CIRCLE WHERE LIFE EXPERIENCES ARE SHARED AND EVERYBODY LEARNS FROM IT." FOR THE COUNTLESS NUMBER OF TELECENTRE ACTIVISTS WHO HAVE BENEFITED FROM IT, SOMOS@TELECENTROS REPRESENTS A NETWORK OF PROFESSIONAL GROWTH AND PERSONAL DEVELOPMENT.

"WITH SOMOS@TELECENTROS, INDIGENOUS COMMUNITIES FROM GUATEMALA HAVE THE OPPORTUNITY TO LEARN THROUGH AN INTENSE EXCHANGE OF EXPERIENCES WITH ORGANIZATIONS FROM ALL OVER LATIN AMERICA," SAYS MANUEL MARCELINO GARCIA, COORDINATOR OF ASODIGUA, A TELECENTRE IN GUATEMALA. "ABOVE ALL, WE FOUND A SENSE OF SOLIDARITY AMONG FRIENDS, WITH WHOM WE SHARE DREAMS AND IDEALS."



TELECENTRE 2.0:

TELECENTRES HAVE EVOLVED INTO A POWERFUL, DIVERSE AND FLEXIBLE TOOL FOR PEOPLE WHO WANT TO IMPROVE THEIR LIVES AND STRENGTHEN THEIR COMMUNITIES. OF THIS, THERE IS NO QUESTION.

THROUGHOUT THIS BOOK, WE'VE SEEN PEOPLE USE TELECENTRES TO LEARN NEW SKILLS, START SMALL BUSINESSES AND INVENT NEW WAYS TO USE TECHNOLOGY TO HELP THEIR COMMUNITIES. WE'VE ALSO SEEN PEOPLE USING TELECENTRES TO CONNECT WITH TEACHERS, HEALTH CARE PROVIDERS, FRIENDS AND RELATIVES WHO ONLY A FEW SHORT YEARS AGO FELT SO DISTANT THAT THEY MIGHT AS WELL HAVE BEEN ON ANOTHER PLANET. AND PERHAPS MOST INSPIRINGLY, WE HAVE SEEN PEOPLE USE TELECENTRES AS A SOURCE OF HOPE: HOPE OF BECOMING A DOCTOR, AN ENTREPRENEUR, A LAWYER, OR ANYTHING YOU COULD IMAGINE.

SCALING UP,

Clearly, telecentres help people and their communities step into the knowledge economy—and do it inventively, on their own terms. However, it is not only people in poor and isolated communities who have the potential to benefit from telecentres. There is also huge opportunity for governments, for businesses, and for those interested in development and poverty reduction to use telecentres as a tool for promoting positive change.

For example, enlightened governments around the world are rightly asking: how does our work change as the Internet spreads everywhere? How do we embrace e-government in a way that benefits all people? Certainly, e-government is a chance to bring government services closer to home. It is also

SCALING SIDEWAYS

an opportunity to renew democracy, engaging citizens in a dialogue at all levels. But this can only work if there is e-government for all. E-government that benefits only the well-off, the well-connected and the well-educated is a step backwards, not a step forwards.

Telecentres, as local information hubs and gathering places, offer the perfect front line where this transformation of government can happen. They offer not only a channel for the delivery of government services but also a platform to provide people with the skills they need for a new type of citizenship, as well as a place to negotiate the future of government creatively and inventively. And assuming the

telecentres are independently run, citizens can use them to interface with all levels of government, as well as the rest of the information society.

For different reasons, telecentres also represent an opportunity for businesses of all types: small and large, local and global, old and new. Telecentres most often go where formal businesses don't—or won't in big numbers. They bring the tools and skills of the knowledge economy to places that the market hasn't. And in so doing, they create both opportunity and demand in the communities they touch.

The obvious economic results are found at the local level: people use the telecentre to invent new ways of making a

SCALING UP, SCALING SIDEWAYS

living, or to improve the living they are already making.

They learn to use desktop publishing to promote tourism, to trade goods online or to use the Internet to find the most lucrative markets for their crops. Or, they use the telecentre as a springboard for their own knowledge economy business: brokering information, helping people interface with government and writing software.

Larger companies could also benefit from telecentres as a way to understand what "bottom of the pyramid" markets really look like. The products and services produced by most large companies are often irrelevant to the bulk of the world's population, especially the poor. Telecentres provide larger businesses, particularly those in high-tech, with a platform to engage in real experimentation and learning at the grassroots, finding out what "village computing" really means for their future products. Done carefully, in an ethical and culturally sensitive manner, this kind of dialogue has the potential to create knowledge economies defined jointly by both users and producers of technology.

Of course, telecentres also represent a major opportunity for people concerned with global development and poverty reduction. In part, this opportunity lies in the roles telecentres play in business creation and market development. Telecentres help reduce poverty by providing a beachhead for service and knowledge economies.

However, the development potential of telecentres is also tied closely to literacy and education. Included in a broader educational mix, telecentres offer the kind of learning and skills development environment needed to help disenfranchised communities step into the information age. They provide all the basic skills you would expect: computer use, office software, Internet and information management. But, even more importantly, they provide an environment that helps people learn how to learn in a fast-moving environment, to learn through experimentation and adaptation. And they help people understand the relationship between lifelong learning and prosperity. Spreading technology skills while encouraging creativity and problem-solving at the

- 1. SOCIAL INVESTMENT MECHANISMS TO SUPPORT THE ESTABLISHMENT OF NEW TELECENTRES AT THE GRASSROOTS LEVEL.
- 2. WELL-PACKAGED, EASY-TO-REPLICATE COMMUNITY SERVICES FOR TELECENTRES SUCH AS TELEMEDICINE, REMOTE LEARNING, FINANCIAL REMITTANCES AND E-GOVERNMENT.
- 3. MODELS THAT TELECENTRES CAN USE TO GENERATE COMMUNITY IMPACT AND FINANCIAL REVENUE.
- 4 FLEXIBLE, ONGOING TRAINING AND SUPPORT FOR HUNDREDS OF THOUSANDS OF GRASSROOTS TECHNOLOGY ACTIVISTS AROUND THE WORLD.

- 5. TECHNOLOGY PLATFORMS, INCLUDING AFFORDABLE AND STABLE INTERNET CONNECTIONS FOR RURAL AREAS.
- 6. GOOD IDEAS TRAVEL FAR AND WIDE—AND HELP THE TELECENTRE MOVEMENT REACH A GLOBAL SCALE.
- AN ENDURING COMMITMENT TO TELECENTRES

 AND OTHER GRASSROOTS TECHNOLOGY
 INITIATIVES FROM ALL SECTORS: GOVERNMENTS, BUSINESSES, DEVELOPMENT
 AGENCIES AND COMMUNITIES.



SCALING UP, SCALING SIDEWAYS

grassroots level is essential to the educational side of any development effort today.

What confronts us now is clearly not a lack of opportunity, or even a lack of action. The telecentre movement—not to mention the number of telecentres—continues to grow every day.

The challenges we face are ones of scale, depth and longevity—making sure that the opportunities presented by telecentres are available to any community on the planet that might want them, to any person who desires to benefit from them. We must ensure these telecentres reach deep into the communities they serve in a way that is sustainable, adaptable and relevant. Spreading and deepening the reach of telecentres is the only way that the opportunities outlined above can really be seized in a meaningful way.

Meeting these challenges is partly a matter of scaling up, creating more telecentres in more places. For this to happen, all stakeholders—communities, governments, businesses and the development sector—need to re-focus their attention on telecentres and integrate them into their vision for the future. This does not necessarily mean creating new, large-scale, top-down telecentre programs. In fact, it likely means the opposite: the development of innovative, flexible financing and social enterprise models that catalyze the mass growth of telecentres from the bottom up. Nonetheless, scaling up will require sustained attention and the proper investments to make it happen.

There is also a need to scale sideways. This is about creating networks between telecentres and across the telecentre movement. Alone, a telecentre is forced to produce and



manage all aspects of its operations from scratch.

As a part of a network, it can draw on products, services, infrastructure, support and training developed by others within the network. Through this kind of sharing, networks have the potential to make it easier and cheaper to run a telecentre. Just as important, perhaps, networks also have the ability to make innovation and new ideas travel far and wide within the telecentre movement.

This process of scaling up and scaling sideways is already starting to happen, thanks to the efforts we've seen in places like Hungary and India. But this is only the beginning. If we're all going to embrace certain core values—empowering communities, connecting isolated communities, learning for all, unleashing new voices and enhancing economic opportunity—as fundamental values for this new millennium, it means we must all step up to the plate and work together.



BOOKS AND ARTICLES

THIS BOOK HAS PROVIDED A SNAPSHOT OF HOW THE TELECENTRE MOVEMENT IS EVOLVING. OTHER AUTHORS BEFORE US HAVE TAKEN THE TIME TO DIG DEEPER INTO THE THEORY BEHIND TELECENTRES OR PROVIDE MORE DETAILED INFORMATION FOR ESTABLISHING A TELECENTRE. THE FOLLOWING IS A LIST OF SOME OF THE MOST INTERESTING BOOKS AND ARTICLES FROM THE TELECENTRE FIELD:

Badshah, Akhtar, Sarbuland Khan and Maria Garrido, eds.

Connected for Development: Information Kiosks and

Sustainability. UN ICT task force book with both cases and policy recommendations for local technology for development projects.

New York: United Nations Information and Communication

Technologies Task Force, Series Book number 4, 2003.

Colle, Royal D. and Raul Roman. *Handbook for Telecenter Staff*. A guidebook for telecentre managers and others setting up local access centres, it is designed to cover the daily workings of a telecentre for community development. Ithaca, NY: Cornell University, 2003.

Delgadillo, Karin, Ricardo Gómez and Klaus Stoll. *Telecentros...* ¿Para qué?: Lessons from Community Telecentres in Latin America and the Caribbean. Lessons learned from community telecentre experiences. Prepared for IDRC's Pan Americas program and Fundación ChasquiNet. 2000.

Fuchs, Richard. Little Engines That Did: Case Histories from the Global Telecentre Movement. A collection of case studies on projects in Canada, Australia, the United Kingdom, Sénégal, Sweden and South Africa providing telecentre discussion and lessons learned for IDRC's Acacia program. Ottawa: IDRC, June 1998.

Gómez, Ricardo and Patrik Hunt, eds. *Telecentre Evaluation:*A Global Perspective. A large compendium of articles on telecentre models and evaluation based on a meeting held by IDRC in Farhills, Québec, 1999.

Hughes, Stella Sucharita Eashwar and Venus E. Jennings, eds. How to Get Started and Keep Going: A Guide to Community Multimedia Centres. A practical guide developed by UNESCO for practitioners and researchers involved in community multimedia centres or other models of community media. Paris: UNESCO, 2004.

Jensen, Mike, and Anriette Esterhuysen. *The Community Telecentre Cookbook for Africa: Recipes for Self-Sustainability*. A guide developed by UNESCO explaining different telecentre concepts, start-up strategies and telecentre management strategies; based on African experience but also useful elsewhere. Paris: UNESCO, 2001.

Salvador, Toni, John W. Sherry and Alvaro E. Urrutia. "Less Cyber, More Café: Design Implications for Easing the Digital Divide with Locally Social Cyber Cafés." *Journal of Information Technology for Development*, 2005. An article by three Intel researchers on the role that cyber cafés and telecentres play as gathering places, and the importance of this role in their design.

WEB RESOURCES

OVER THE YEARS, A NUMBER OF ONLINE RESOURCES HAVE EMERGED TO SUPPORT THE PEOPLE WORKING IN TELECENTRES AND OTHERS IN THE FIELD OF COMMUNITY TECHNOLOGY. THE FOLLOWING IS A LIST OF SOME OF THE MOST USEFUL ONLINE RESOURCES IN THIS FIELD:

telecentre.org: A collection of websites produced in collaboration with telecentre.org partner networks around the world. Includes online community, telecentre news and a curriculum and documentation library. www.telecentre.org

UNESCO Community Multimedia Centre Portal: A collection of useful guidebooks for multimedia telecentres, as well as excellent coverage of UNESCO-funded community multimedia centre initiatives around the world.

www.unesco.org/webworld/cmc

somos@telecentros (Red de Telecentros de América Latina y el Caribe): Latin America's leading telecentre website, providing an excellent collection of resources and an extensive sustainability toolkit for telecentres. www.tele-centros.org

Choike Telecentres Page: An extensive collection of resources looking at telecentres as "a new model for social appropriation of information and communications technologies." Includes links to up-to-date research and commentary in English and Spanish on telecentres. www.choike.org/nuevo_eng/informes/3084.html

The Digital Divide Network: An online community for activists and professionals working on digital-divide issues, including community technology and telecentres. www.digitaldivide.net

iTrainOnline: An extensive collection of curriculum and other training materials intended for use in a development and NGO context, including telecentres. Run by UNESCO, APC, OneWorld and others. www.itrainonline.org

TakingITGlobal: An online community for youth interested in global issues, including the use of information and communications technologies for development. Many users access the site from telecentres. www.takingitglobal.org

Community Informatics Research Network (CIRN): A website containing extensive archives of academic research on community technology, especially papers from CIRN conferences and the *Journal of Community Informatics*. www.ciresearch.net

America Connects Evaluation Database: An extensive database of evaluation resources for telecentres and community technology learning centres. www.americaconnects.net/search/search.asp

Lone Eagle Consulting Resources to Support Rural Innovation: A useful collection of best practices and advice on "future proofing" rural communities, from Frank Odasz.

http://lone-eagles.com/future-proofing.htm

A FURTHER THANK YOU...

THIS BOOK IS BASED ON MORE THAN SIX MONTHS OF CONVERSATIONS ABOUT THE TELECENTRE MOVEMENT—DISCUSSIONS ABOUT THE FUTURE OF TELECENTRE.ORG, INTERVIEWS FOR THIS BOOK AND GENERAL CHITCHAT ABOUT WHERE TELECENTRES ARE GOING. EACH OF THESE CONVERSATIONS FED INTO THE VISION OF THE TELECENTRE MOVEMENT OF THE FUTURE THAT THIS BOOK CAPTURES. WE OFFER OUR DEEPEST GRATITUDE TO ALL WHO HAVE OPENED THEIR HEARTS AND SHARED THEIR IDEAS IN THIS PROCESS; THERE IS A PART OF EACH AND EVERY ONE OF YOU IN THESE PAGES. SOME OF THE PEOPLE WE TALKED TO WERE:

Dr. A. Jhunjhunwala Bhavani Ganeshan Dr. A.P.J. Abdul Kalam Biorindo Palma Alan Finlay Boda János Alberto Alvial Bounprasong Alex Samuel Phanmanivong Ama Anin Cathy McCaul Amoah Isaac **Cedar Pruitt** Chaitali Sinha **Newton Kwaning** Amos Anvimadu Chandrashekhar Chetan Sharma André Ribamar Lopes **Andrea Taylor Chris Coward** Ankhi Das Claire Buré Anriette Esterhuysen Clifford Anim Cristián Cánovas **Anwar Hussain Chowdhary** Arun Bora Cristián Flores Cristian Freire Quiupun Balogh Anikó

Dalavanh Katthiyavong

Daniell Krawczyk

David Barnard

Basheerhamad Shadrach

Bernát Éva

Bev Collins

David Zapata Denis Patenaude Derlly Pantoja Dicső László Doña Berta Doris Chacón **Dwight Wilson** Eduardo del Valle Eng. Sohair El Said Amira Estelle Akofio-Sowah Ester Llancaleo Ethan Zuckerman Eugenia Vivanco Gajardo Felicia Sullivan Frank Odasz Frank Tulus Gail Short Garth Graham Gáspár Mátyás Geeta Malhotra Geeta Sharma Ghada Khalifa Gina Wessie **Graham Todd** Győri Enik Harsha Liyanage Haruna Yakubu Heba Ramsay Hisenburg Togba Horváth Zsófia Ian Pringle Isabella Rega Jane Meseck

Janet Feldman Jaya Chittor Jean-Luc Raymond **Jennifer Corriero Jenny Garcés** Jeremiah Burgess **Jody Mahoney** loe Akaba **John Zoltner** Jorge Hiostroza Iosé Salazar Joseph Garbrah Hooper Juan Valenzuela Jussara Camargo Karin Delgadillo Karishma Kiri Karl William Karma Tshering Klaus Stoll **Kavita Singh** Kentaro Toyama Kiss Béla Kiss László Kiss Lászlóné Kojo Adu Kwabena Marfo Laurent Elder Lawrence Zikusoka Lee Thorne Lengyel János Leopold L. L. Armah Leopoldo Castillo Littana Sivilay

Litter Silatikoun
Lucy Curin Chicagual
Luiz Carlos dos Santos
M.S. Swaminathan
Maha Mahmoud
Mahesh Uppal
Manju Hathotuwa
Manuel Marcelino Garcia

Manuel Morales Manuel Painiqueo Tragnolao

Marcos Antônio Domingues

dos Santos Jr. Margarita Neuculen Queupa María Angélica

María del Carmen Nahuel María Eugenia Órdenes

Maria Ng Lee Hoon

Marnie Webb Marybeth Norton

Maulana Zafaruddin Ahmad

Meddie Mayanja Michael Best

Michael Gurstein Miguel Raimilla Mike Furdyk Mike Jensen

Mohammed Abu Bakr Mônica Conrado Morenike Ladipo Motoo Kusakabe

Nana Kwabena Sarpong

Nelson Rivera

Nina Bull Jorgensen

Njideka Harry Dr. Osei Darkwa P. G. Ponnapa Pedro Contreras

Pete Cranston

Peter Benjamin

Peter Frampton

Petronila Millaguir Phommady

Peter Bull

Chanthamavong

Phonpaserth Sengvilaythong

Polly Gaster

Pratima

Priyanthi Daluwatte Radebe Thabiso Rakesh Khanna

Randy Mann Raul Roman Ravi Gupta

Ravindra Ariyawickrama

Reema Singh Regina Benini Reshan Dewapura Ricardo Gomez Ravi Gupta

Ricardo Tripainao

Richard Fuchs Rodolfo Fucher Rodrigo Garrido Romulo Elgueta Rosa Porma Millavil

Rowena Beamish Royal D. Colle

Ruth Espinoza

Sam Gulube Sambath Bo

Samuel Omane

Sarah Fiset

Sarita Sharma

Satyan Mishra

Senthil Kumaran

Sheila Downer

Sherrie Thompson

Sombath Somphone

Steve Song

Stuart Mathison

Subbiah Arunachalam

Sukanya Rath

Themba Mdlalose

Thomas Bell

Tonya Surman

Tracey Naughton

.....,

Dr. V. Balaji

Vannapha Phommasone Vilayvanh Photavong Vinid Sengtianthr

Vorasone

Dengkayaphichith Wittinghoff Tamás

...and many many more.

TELECOTTAGES: THE SOUL OF THE VILLAGE

The International Development Research Centre is a public corporation created by the Parliament of Canada in 1970 to help developing countries use science and technology to find practical, long-term solutions to the social, economic and environmental problems they face.

Microsoft Corporation is a global technology leader committed to innovation and broadening digital inclusion through its Unlimited Potential program, which enhances technology skills of underserved young people and adults through community telecentres.

Swiss Agency for Development and Cooperation is Switzerland's international cooperation agency responsible for overall coordination of development activities and cooperation with Eastern Europe, as well as humanitarian aid.



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FROM THE GROUND UP

[THE EVOLUTION OF THE TELECENTRE MOVEMENT]

They go by different names: telecottages, community access points, CTCs, community multimedia centres. They're telecentres—places where the public can come together to access the Internet, learn new skills and tackle local problems. Thousands of telecentres worldwide are helping empower communities, end isolation, create economic opportunity, give people a voice and educate the public. It's an international movement with one overarching goal: to help communities seize the benefits of the knowledge economy, on their own terms. This is the telecentre movement today.

This book was developed through a partnership between IDRC's telecentre.org program and EDC's Digital Divide Network.

telecentre.org is a collaborative initiative connecting telecentres, networks, innovators, social investors and other interested groups who believe that information and communications technologies, used locally, strengthen individuals and the communities where they live.

Hosted by Canada's International Development Research Centre (IDRC), we invest in actions that bolster the global telecentre movement to benefit small telecentres directly.

Visit www.telecentre.org to get involved.

The Digital Divide Network (DDN) is the Internet's largest community for activists, educators, policy makers and concerned citizens working to bridge the digital divide. DDN serves as a platform for discussing best practices, debating policy issues and forging new partnerships.

For more information, visit www.digitaldivide.net.

telecentre.org's founding social investors include:







