

Transforming the Fight Against Poverty:

The Internet & Anti-Poverty Strategies

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By

Elaine C. Kamarck, PhD^o

Harvard Kennedy School of Government

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Introduction & Findings

Ever since the beginning of the Internet revolution, people have spoken of the “digital divide” between the Internet “haves” and “have-nots.” While access to information technology is still a compelling part of any anti-poverty strategy here in the U.S. and in much of the world, decreasing information technology costs have broadened access to previously underserved populations both here and in many of the developed countries. Thus much of what we think of when we think of information technology and anti-poverty strategies involves programs that, in one way or another expand access.¹

For instance, the Gates Foundation Global Libraries Initiative partners with countries emerging from poverty to help public libraries provide free access to computers connected to the Internet and training on how to use them. In addition as part of an effort to enact universal design standards for public housing, the Kentucky Housing Corporation (KHC) passed a mandate stating that all new housing units as of 2003 that are funded more than 50% by the KHC, must be equipped with access to high-speed Internet service. Nebraska, Oregon and Wisconsin have also pushed developers to wire for broadband by giving them preferential access to low-income housing tax credits.² Finally, the Bring IT Home America project by the One Economy campaign employs a three-part strategy for connecting low-income people to tools for building better lives: deploying broadband and hardware, employing youth to build a cultural bridge between technology and their communities, and creating informing, engaging, online media. *Bring IT Home California* has two programs: *Broadband@Home* which seeks to connect 84,000 low-income Californians statewide to free or low-cost broadband at home and will pursue policy change for wiring affordable housing; and *21st-century Communities* that will connect low-income households to high-speed Internet access, integrating

¹ Outside the United States, Chile's Directorate of Libraries, Archives and Museums (DIBAM), BiblioRedes provides free access to computers and the Internet, as well as technology training in DIBAM's network of 378 public libraries throughout Chile. It also created 14 mobile laboratories to serve remote communities in each region of the country.

² Goot, Dustin “A Broadband Hook-up in Every Home” *Wired* 02.11.03
<http://www.wired.com/politics/law/news/2003/02/57249>

technology with a community development. AT&T is contributing 2-years of high-speed Internet access to this project.

While individuals' access to information technology is important to the fight against poverty, there are many other pressing issues, from health to housing, that have to be dealt with simultaneously, if not before, efforts to increase poor people's access to the Internet. Unlike many other studies that have documented access issues and their effects on the digital divide, this report will concentrate on the ways in which Internet technology has been transforming more traditional anti-poverty efforts. It will argue that, in the next decade, the Internet will be as central to the transformation of programs promoting social justice as it has been to the transformation of business and culture in the previous two decades. In addition, it will illustrate that we are only just beginning to understand how the Internet can help transform the fight against deprivation and poverty both here in the United States and abroad.

This paper is in two parts. The first section will address the ways in which information technology and the Internet have enhanced productivity in government-run poverty programs. The second section will show ways in which the Internet has enhanced the fundamental work of alleviating poverty.

In the first section we will see that the Internet has transformed the heretofore costly and bureaucratic administration of many anti-poverty programs in the United States and other advanced industrial nations. The reason this matters is that critics of most anti-poverty programs have come from both the right and the left. On the right, conservatives have focused on high levels of fraud in these programs. On the left, liberals have been concerned that bureaucratic obstacles prevent people from getting the help to which they are entitled. Internet technology has moved these programs into a win-win situation; reducing fraud while improving access.

In the second section we will see how the Internet has enabled anti-poverty programs to overcome the problems of physical and market isolation that are so prevalent

in poor populations. The creative use of Internet-based systems to deliver economic connectivity and better health care have allowed for stunning increases in the effectiveness of anti-poverty programs in some of the world's poorest places.

I. Using the Internet to Reduce the Cost of Government Overhead and Improve Services in Anti-Poverty Programs

In an important work, *Welfare Realities, from Rhetoric to Reform*, two of the scholars whose work inspired the Clinton Administration's welfare reform proposals, Mary Jo Bane and David Ellwood, describe the welfare system as it existed up to and into the early 1990s.³ For a variety of reasons, mostly unintended, the old welfare programs had evolved into a system almost entirely preoccupied with making sure that every recipient met all the legal requirements for receiving benefits and participating in related programs. This "eligibility-compliance" culture was reinforced by those on the right who feared that the system was prone to fraud, and by those on the left who wanted to make sure that everyone who was entitled to help received it. The result? In the words of Bane and Ellwood; "There is little in the relationship between recipients and line workers that would aid a recipient in putting together the necessary child support, child care arrangements, training and employment necessary to become self-supporting... The eligibility-compliance culture that characterizes the current welfare system contrasts sharply with what we might call a self-sufficiency culture."⁴ When the federal government attempted to control the cost of the program, they focused on rewarding states for accuracy levels in determining eligibility. This increased the bureaucratic nature of the system and created an even more rigid system that tended to regard any exceptions to the rules as increasing the states' tendency towards error. In other words, welfare had become a system that contributed little to the core mission of alleviating poverty.

³ Bane, Mary Jo and Ellwood, David T., *Welfare Realities: From Welfare to Reform*, (Cambridge: Harvard University Press, 1994)

⁴ Ibid, page 7.

In the past two decades, information technology has been leading a way out of this trap. By the mid 1990s, counties that administered welfare programs were discovering that an Internet-based, systems approach to poverty program eligibility could enable them to reduce overhead, increase services *and* reduce fraud and error. For instance, in Los Angeles County, a web based system called LEADER, for Los Angeles Eligibility, Automated Determination Evaluation and Reporting System, managed to incorporate all of the complex rules and regulations for California's different poverty programs into one system. The system processes 5.1 million transactions per day. As a result, the county can notify clients of their eligibility within hours (it used to take a month) and over the years the new system has saved the county \$83 million a year.⁵ This system paved the way for greater program integration in Los Angeles, while three other similar systems were administering California's welfare systems, and of this writing, the state is urging consolidation of systems. The overall story stands. Internet technologies have transformed the complex and costly business of welfare eligibility.

A second example comes from a revolution in the food stamp program, a critical front line in the fight against poverty. The transformation of the food stamp program from a paper-based system subject to high levels of fraud and abuse, to an electronic "smart card" program took less than a decade. All over the country paper food stamps have been replaced with electronic benefits transfer debit cards based on personal identification numbers, and in many states the cards contain other benefit programs as well. The EBT (Electronic Benefits Transfer) model has been so successful that, in the wake of Hurricane Katrina, there is discussion of enlarging the applications to include disaster relief.

EBT technology also has helped to dramatically reduce fraud. The Agriculture Department has cut \$1.4 billion in improper payments over five years (from 2000-2005) from its Food Stamp program by adopting an electronic benefits card, and aligning state and federal benefit criteria. USDA's erroneous payments are at a record low 5.88%, according to Kate Coler, Deputy Undersecretary for Food, Nutrition and Consumer

⁵ Robert Peck, "Integrated Systems Improve Welfare Delivery," *The American City and County*, 17, 1 (January 2002): 10.

Services, testifying at a hearing of the Senate Homeland Security and Governmental Affairs Subcommittee on Federal Financial Management. “As states streamlined eligibility and criteria for payments, it helped to bring down erroneous payments,” she said. “These reductions in error rates have been achieved by identifying both overpayments and underpayments. To place this improvement in a financial perspective, if the FY 1998 overpayment error rate of 7.6 percent had not decreased to 4.5 percent in FY 2005, nearly \$900 million more in food stamp benefits would have been issued in error.”⁶ Significantly, these improvements did not come at the expense of access to program benefits. The program served over 9 million *more* low-income people in 2006 than it did in 2001. And 60% of those eligible to participate in the program did so in 2004, compared with 53% in 2001.⁷

Internet-based systems are also critical to increasing accuracy at The Department of Housing and Urban Development (HUD), which pays out \$27 billion a year in rental assistance to provide 4.6 million low-income households with affordable housing. The amount of rental assistance a household receives is based on its income level: The lower the household income, the higher the federal assistance. HUD had little control over the accuracy of the payments made for each household and relied largely on the honesty of the household’s reporting of income and the adequacy of the local program administrator’s verification and use of the reported income to correctly calculate the assistance due to the household. In 2000, HUD estimated its improper rental assistance payments at \$3.22 billion per-year, due to failure to properly report, verify or process income and benefit information.

A key part of HUD’s strategy for reducing those improper payments was the implementation of a new computer matching process to provide housing program administrators with controlled access to household income information already maintained in central databases at other federal agencies. The new system provides a

⁶ http://www.gcn.com/print/24_21/36525-1.html Mosquera, Mary “E-debit card reduces food stamp errors” 08/01/05.

⁷ http://www.whitehouse.gov/results/difference/food_stamp.html accessed 5 Aug 08.

secure central source for verifying wages, unemployment benefits and Social Security Administration benefits, as well as monthly new employment information, for HUD program beneficiaries who have authorized the release of such information as a condition of their program participation.

This has allowed HUD to reduce improper rental housing assistance payments by nearly \$2 billion, or 60% from the \$3.2 billion level in 2000, to less than \$1.3 billion in 2005. This level of reduction in improper payments enables HUD to use those savings to provide assistance to more than 250,000 additional households.⁸

Benefit eligibility is not the only area where the Internet has helped government improve its anti-poverty work. Effective child support systems are critical to keeping women and children out of poverty and to managing the government's welfare expenditures. Part of the 1996 welfare reform bill requires that states begin integrating databases in order to make it easier to track down non-custodial parents and get them to pay child support. By 2004, all but a handful of states had been certified by The Department of Health and Human Services as having created an automated child-support enforcement system in keeping with the bill, and payments have gone up. According to the Child Trends Databank, "Among custodial parents with a child support award, the percentage who received a full payment of all support owed them in the previous year increased from 37 percent in 1994 to 46 percent in 1998, and was 45 percent in 2003."⁹

A second major problem for all state social welfare systems has been the identification and then tracking of vulnerable people. In 1999, Pennsylvania's Auditor General's office uncovered several cases of abuse and neglect in group homes for people with mental retardation. In those days, incidents were reported to the state in paper format, and sometimes it took months to get a response. The paper-based, silo system delayed services and benefits to people with disabilities.

⁸ http://www.whitehouse.gov/results/difference/improper_payments.html.

⁹ <http://www.childtrends.databank.org/indicators/84ChildSupport.cfm>

In response, the Pennsylvania Department of Public Welfare, Office of Mental Retardation, developed an integrated system that would better track services for Pennsylvania's disabled citizens. The Home and Community Services Information System (HCSIS), is an Internet-based client information management system, built to track services for the 70,000 people with mental retardation who receive assistance from 900 provider agencies, such as group homes, day programs, facilities for the elderly, transportation services and respite care, as well as 48 county mental retardation programs and Pennsylvania social service agencies.

HCSIS has helped to reduce the use of unnecessary restraints, provide better financial accountability and improve the quality of life for Pennsylvanians with disabilities. It also has saved the state more than \$54 million, about 13,000 hours a year for the state's central office, and about 79,000 hours a year for county programs.¹⁰

These are but a few of the ways that the Internet facilitates the government's work in running anti-poverty programs. The cost of administering benefit programs in ways that ensure that all eligible people are served and fraud is minimized is one of the biggest challenges governments face. The use of the Internet to integrate the enormous databases necessary for the fair administration of anti-poverty benefit programs has been critical to increasing productivity in social justice programs, by allowing governments to substantially reduce the overhead associated with the administration of social welfare programs that help the poor. As more and more government data is online and interoperable, one government program can check other government programs electronically and avoid duplication and fraud in benefit programs.

In the past decade, the Internet has allowed government to pursue a win-win course in the administration of anti-poverty programs. Aid to the poor, once a touchstone for anger and partisan bickering in American politics, has been taken out of the firing line, in part because information technology has revolutionized its administration. Fraud

¹⁰ http://www.gcn.com/print/25_30/42172-1.html Walsh, Trudy "Services Hit Home" Government Computing News 10/09/06

detection (a concern of conservatives) and access to benefits and services (a concern of liberals) are *both* enhanced by the same technologies and their ability to coordinate the complex databases needed to confirm eligibility for anti-poverty programs. Productivity increases in the benefits programs that constitute the core of American anti-poverty programs have freed up people and dollars for program activities designed to get at the core issues in poverty.

The next challenge in the government's fight against poverty is to expand its use of the Internet to the actual completion of transactions online. One company in this field estimates that the cost to the government of completing a transaction online is at most one-tenth of the cost of a phone interaction and one-hundredth the cost of a face-to-face interaction.¹¹ While much anti-poverty work is person to person and can not be replaced by online activity, to the extent that providers in the anti-poverty community can complete transactions online, either on behalf of themselves or their clients, their productivity will be enormously enhanced.

The second challenge in the government's fight against poverty will be to use the Internet to better integrate the programs that are designed to help the needy. This is a complex undertaking because anti-poverty programs tend to stem from a number of individual pieces of legislation with different eligibility rules and different legal structures. Internet-based technologies, however, have the capacity to create a seamless web of service for the poor – a goal that has eluded reformers for quite some time.

II. Using the Internet to Promote Health, Education and Economic Development

Anti-poverty strategies in the first world differ in some fundamental ways from those in the developing world. In many first world countries, the anti-poverty mission has been buried in a tangle of complex bureaucracy. Simply finding the right programs can overwhelm the poor and their advocates and leave the poor under-served. In first world countries where many safety net programs already exist, a major concern of those

¹¹ Interview with Ezgov.

attempting to fight poverty is the fact that due to government complexity and red tape, the people who need and are entitled to services and benefits often have no idea how or where to get them.

This has led to extensive use of the Internet as a tool for helping the poor (and more often, those who help them) to navigate amongst often complex bureaucracies. For instance in the U.K. - www.direct.gov.uk - offers information on benefits, allowances and tax credits, such as qualification criteria, understanding the system, and changes that can affect benefits. It also provides links to forms and information on how to file forms. In the United States, www.usa.gov is the U.S. government's official web portal, and it offers links to information on grants, loans, tax credits and other benefits. Citizens can also go to www.GovBenefits.gov where they can fill out a 10 minute confidential questionnaire and receive a list of programs that they qualify for.

In addition to public sector programs, there are private/non-profit groups that deliver similar guidance services. *Beehive* is a multi-lingual self-help web portal providing online tutoring and health information (including Medicaid information). It also offers employment tools such as a business plan helper and information on unemployment benefits, financial information, and a free tax tool to prepare and file income taxes. More than 150,000 low and moderate-income households accessed financial literacy information in 2007, including information on the Earned Income Tax Credit and other important tax credits, the economic stimulus, ideas on spending and saving tax refunds, and other free tax-related, community-based services.¹²

In first world countries, computer literacy also is critical to educational development. Thus many programs exist which use the Internet to teach and expand computer literacy. Over 95% of primary and secondary schools in the U.S. have broadband Internet access.¹³ A particularly good example of the use of the Internet for this purpose is a program in economically depressed Greene County, NC. The Digital Community program launched in 2003, gave all 6th-12th graders Apple iBooks, developed

¹² www.thebeehive.org

¹³ 2008 OECD Statistical Profile

free Internet hotspots at schools and fire stations, launched a local website through Beehive with agriculture options, online marketplace, small-business development and career-building opportunities. The results have been impressive: SAT scores increased by 41 points in 2 years, high school proficiency scores increased from 53% to 78.4%, the county saw decreases in drop-out rates and teenage pregnancies and 84% of seniors applied for college compared to less than 26% before the program launch.¹⁴

The story is different in the developing world, where state structures for fighting poverty are often weak or, more likely, non-existent. As many a high-tech philanthropist has discovered, for most the world's poor, access to broadband technology is fairly far down on the list of things they need. Food, sanitation, health care and basic education are far more pressing needs. Since social and educational isolation characterizes much of the world's poor, even old communication technologies such as the radio can make a big impact on marginalized populations. Increasingly, however, the Internet is being used to connect poor people in developing countries to things they need, such as markets and health care. The non-profit or NGO world has been particularly effective at using internet based technologies to expand and enhance their anti-poverty efforts. The use of this technology has enabled these projects to solve some of the core problems in third world poverty, many of which stem from extreme isolation. A few examples follow.

Many of the world's poorest people make their living in agriculture. But they are often isolated and uneducated and have to rely on intermediaries to get their goods to market. *Agronegocios* in El Salvador is a virtual market online where offers and demands are posted. It gives farmers direct access to markets and allows them to bypass intermediaries (called *coyotes*) who charge higher rates. Farmers and their children are taught how to use the virtual market and are able to use it at a number of designated centers around the country. This opens up trade to a broader range of geographically diverse consumers.¹⁵ A similar program called *Gyandoot* (Messenger of Information) in

¹⁴ Testimony of Rey Ramsey, Chief Executive Officer of One Economy Corporation, Before the House Committee on Energy and Commerce June 24, 2008 <http://www.oneeconomy.com/sites/all/files/TelecommCommitteeTestimony%20062108.pdf>

¹⁵ See *Empowering Marginal Communities with Information Networking*, by Hakikur Rahman, Idea Group, 2006.

the state of Madhya Pradesh in India is a government initiated intranet system which connects rural farmers (for a small user fee) to market information, provides an online auction system, and allows them to access land records (which normally had to be done in person with a government official) and to file government applications (income/caste/domicile certificates) online at local kiosks. Initial set up costs were US\$50,000, and user fees are designed to cover maintenance and administration costs. It is accompanied by an e-education system online for school-children. This project has increased computer literacy in rural areas, allowed farmers access to broader consumer markets, and cut down on inefficiencies associated with face-to-face transactions with the government.¹⁶

E-choupal is another web portal that allows farmers in India to check both futures prices around the world and local prices before going to market. The system provides access to the Internet via satellite and solar panels and is therefore able to provide information about local weather conditions, soil-testing techniques and other expert knowledge that will increase productivity. There are 3,000 Internet access points in India, serving 18,000 villages, reaching up to 1.8 million farmers. E-choupals have already reduced transaction costs and the quality of the soybeans purchased through the portal is better. As e-choupals continue expanding to other crops like wheat, the returns will be greater.¹⁷

Agriculture isn't the only economic activity where the Internet is closing the gap between producers and markets. Over the years, Internet shopping sites have sprung up that specialize in selling arts and crafts made by artisans living in remote areas and in poverty. Often these sites are run by an anti-poverty group, and they help bring the arts and crafts of remote villages to the first world. For instance, the Women's Missionary Union of the Baptist Church runs WorldCraftsVillage.com, a website featuring arts and crafts from 31 countries around the world. The project creates "personal relationships"

¹⁶ <http://gyandoot.nic.in>

¹⁷ Story from the New York Times, 'Internet transforms farming in India Rural savvy in a global market' By Amy Waldman, Friday, January 2, 2004. For more details, visit http://www.digitaldividend.org/case/case_echoupal.htm

with craftspeople who live in poverty and helps provide them with a steady income. The ministry ensures fair wages and non-exploitive conditions for more than 2,000 craftspeople worldwide. The artisans are paid for their work when they provide the products, and WorldCrafts markets the items in the United States. The ministry has allowed some women to escape prostitution and slavery and enabled others to receive an education and graduate from college. New churches also have been built, initiated by the WorldCrafts ministry.”¹⁸

The Internet also is becoming an important tool for health workers in remote areas. Clinicians in remote hospitals often work under extreme conditions, with little access to modern medical journals, or contact with colleagues working on similar problems. Often, there is only one doctor or only one nurse practitioner for hundreds of miles and thousands of people, limiting care to what that person happens to know. One NGO, the Academy for Educational Development - Satellite, has implemented projects in Uganda and Mozambique where health professionals are provided with handheld personal digital assistants (PDAs) over which they can transmit and receive vital data through a wireless or mobile network. “Four years into the project in Uganda, 175 remote health facilities serving more than 1.5 million people are able to send and receive data and medical updates.”¹⁹

In many other remote and impoverished parts of the world, “telemedicine,” the ability to use real time Internet transmissions to discuss the medical problems of a patient with experts around the world is transforming the delivery of health services as well. Says one doctor familiar with the challenges of working in impoverished countries; “For example, I have recently communicated with a visiting health professional in Cambodia who suspected a case of Henoch-Schönlein purpura (vasculitis) and sent a complete case history plus digital photographs of the lesions. The patient, living in a hill community, improved dramatically on prednisone after languishing for weeks with an undiagnosed illness. Another example of the value of the Internet was the implementation of

¹⁸ “ WorldCrafts ministry expands via website, new catalog,” by Kendra Buckles, *Baptist Press*, August 12, 2008

¹⁹ “Connecting Health Clinics and Remote Health Workers,” at http://www.unfoundation.org/files/pdf/2008/vodafone/tech_social_change/health_case2.pdf

educational web servers in Kosovo, established with satellite links only months after the conflict abated. The installation of an Internet server allowed the local physicians to gain access to literature and websites which replaced their 10 year old collection of journals.”²⁰

Conclusion

The Internet has transformed every aspect of society. The transformation began in the business world and moved quickly to the world of culture. It has also transformed the public sector and within that, programs that attempt to alleviate poverty. Whether the challenge is linking a poor mother in Detroit quickly and efficiently to the benefits she needs, linking a farmer in India to a market he needs or connecting a nurse in Uganda to the information she needs, the lesson is the same. We have only just begun to tap the integrative power of the Internet for people who suffer from economic, social and sometimes physical isolation. And similarly, governments and NGOs have only just begun to experience the enormous gains in productivity in this field that have been had in other areas of the public and private sector. Increasingly, anti-poverty efforts will depend on a robust, capable and affordable expansion of broadband technology and the Internet.

²⁰ “Editorial: Telemedicine in Developing Countries,” by Steven M. Edworthy, British Medical Journal *BMJ* 2001;323:524-525 (8 September)