

**DEVELOPING KNOWLEDGE ECONOMIES:
A MICROSOFT PERSPECTIVE ON “ICT FOR DEVELOPMENT”**

We are evolving toward a diverse yet unified global market, with customers, partners and suppliers that work together across cultures and continents. The global workforce is always on and always connected.

Bill Gates

Information and communications technologies (ICTs) are transforming a world of individual national economies into an integrated global workplace. At the same time, they have placed the management of knowledge at the center of economic performance. The task of development is increasingly understood as one of developing “knowledge economies,” where the effective management of information and collaboration, and the incentives for investment in innovation, become competitive differentiators and the basis for economic growth.

As a global provider of software and other information and communications technologies (ICTs), Microsoft is a recognized leader and valued partner in providing software platforms, applications and services that enhance the performance of governments, enterprises and individuals. Microsoft collaborates with local hardware, software and service providers in all countries in which we do business to accelerate political, social and economic development. These efforts include an increasing focus on the less developed parts of the world. We believe ICTs offer special opportunities to stimulate growth and increase innovation in every local setting, thereby enabling individuals and institutions to interact more productively within a global economy.

At the same time, technology does not generate development alone. In order to realize their potential, these technologies must be part of a mix of sound government policies, enhanced workforce skills, and infrastructure investments—recipe of interdependent ingredients which promotes initiative and innovation. This paper highlights some of the ways that Microsoft thinks about the relationship between the technologies and programs we provide and the development impacts desired by our partners and customers throughout the world. It consists of three parts:

- I. **Managing Knowledge in a Global Economy**
- II. **Enabling Conditions for ICT Impact**
- III. **Microsoft’s Development Proposition**

I. **MANAGING KNOWLEDGE IN A GLOBAL ECONOMY**

- **Knowledge Productivity**
- **Global Competitiveness**
- **ICTs = Integration, Collaboration & Transformation**

For every country in the world—not just the less developed or “emerging market” countries¹—the process of continuous economic, social and political development has become a national imperative. Even leaders of the most developed economies recognize that without constant effort to increase productivity, stimulate growth and create employment, their industries will lose ground in global competitiveness to those that can do so. Countries that sustain steady development progress in the aggregate may also find that certain population segments, economic sectors or geographic regions are left out of that success and therefore require targeted attention. Meanwhile, a large number of poorer countries are struggling to keep pace with global expansion or slipping farther behind in overall economic performance. The challenge of development is therefore both urgent and universal.

1. Knowledge Productivity

As a provider of information technologies, Microsoft finds particularly useful those perspectives on the development process that emphasize the strategic role of information in all forms of development.² The World Bank has been a particular leader in developing and applying this “knowledge economy” framework to assist the development strategies of individual countries and to generate useful comparisons among them.³ The insights stimulated by this approach are influencing a wide range of government officials, development agencies and commercial businesses. These experts recognize that economic competitiveness and institutional performance increasingly depend on the effective exploitation of information—in short, by transforming vast quantities of available information into usable knowledge, and then applying that knowledge in effective collaborations among individuals and organizations to improve performance and fundamentally change the way they do things. ICTs therefore become strategic assets in shaping the development trajectories of government agencies, commercial entities and individual entrepreneurs. According to a recent study by the Bank, put simply, “[f]irms that use ICT grow faster, invest more, and are more productive and profitable than those that do not.”⁴

2. Global Competitiveness

¹ We recognize that terms like “developing countries” and “emerging markets” encompass a wide range of circumstances and standards of living. Regions, countries, provinces—even remote villages—present varying challenges for business, and particularly for the software industry. Large, high-growth countries like China, India and Brazil are themselves diverse and wide-ranging societies, with great differences among regions and ethnic groups. Accordingly, we generalize in this paper with a basic recognition of how limited such generalities can be. In fact, Microsoft is engaged in constant efforts to understand discrete market segments and adapt our offerings accordingly.

² In their 2001 survey of “Modern Economic Theory and Development”, Karla Hoff and Joseph Stiglitz identify one major strand of research and analysis on development as suggesting that “it is gaps in knowledge... that account for lack of development.” *Frontiers of Development Economics* (World Bank, 2001) at p. 412. “[I]f differences between industrial and developing countries depend on differences in knowledge as much as on differences in capital, policies to narrow the knowledge gap take on a first-order importance.”

³ See the country studies of Carl Dahlman, *India and the Knowledge Economy* (2005); *China and the Knowledge Economy* (2001); *Korea and the Knowledge-Based Economy* (2000). “A knowledge economy is one that creates, disseminates and uses knowledge to enhance its growth and competitiveness.” (India study, p. 9) See also the Report of the U.N. Task Force on Science, Technology and Innovation of the Millennium Project, *Innovation: applying knowledge in development* (2005).

⁴ Guislain, Qiang, Lanvin, Minges & Swanson, “Overview”, *2006 Information and Communications for Development: Global Trends and Policies* (2006) at p. 4.

At the same time, development is no longer principally a national matter. In the 20th century it may have been possible to treat development as if it occurred largely within the boundaries of a particular state. But it is now clear that, even for the largest countries, development involves intense, highly-competitive interactions with a global economy that increasingly transcends national borders.⁵ Indeed, from sector to sector, the degree of global integration may vary significantly from country to country—that is, one country’s agricultural industry may be far more integrated and competitive with the outside world than its banking sector—or vice versa. Often, this is a factor of whether and how ICTs are effectively applied in that local industry.

ICTs have been a major driver and definer of the globalization process itself. By making information more accessible and usable, and making communications faster and more widely available, ICTs have reduced the traditional constraints of distance and culture and dissolved many distinctions between national and global economies. These days a small business in Nairobi or a large mine in Indonesia may be more exposed to shifts in global demand than to changes in local economic conditions. Both require the information and access to technologies that enable them to adjust and exploit these interdependencies to best advantage. Productivity increasingly requires connectivity.

Of course, not all governments or citizens view the globalization process as a positive one, and many have tried to resist or defy various pressures to adjust. Yet even detractors of globalization recognize that reliable access to information and the ability to communicate effectively are critical factors in their efforts to cope with pressures from beyond their borders.

3. ICTs = Integration, Collaboration & Transformation

ICTs play a crucial role in both national wealth creation and global competitiveness. In the most productive settings, ICTs enmesh individuals and organizations in networks of information and collaboration—whether accessed by mobile telephones, dial-up computers or broadband Internet terminals—which heighten awareness and increase performance. Indeed, the acronym “ICT” might be thought of as standing for the *integration* of information and the *collaboration* of individuals and organizations which result in the *transformation* of political, social and economic activities. Such transformation may not always occur spontaneously or constructively. The challenge—for individuals, organizations and government leaders alike—is to identify the opportunities and options for bringing together useful knowledge to facilitate the web of relationships that make change manageable and productive. While national-level “e-Strategies” may help to clarify the priorities of governments and outside donors for one country as a whole, these decisions are more typically the result of decisions made at lower levels—by companies, agencies and individuals.

Software. Among the assortment of computing and networking technologies that comprise ICTs, it is *software* that provides the structured linkage of ideas and behavior—taking thoughts to actions and driving individual knowledge into group collaboration. Software is applied knowledge—the information frameworks that link human motivation and machine power and thereby intensify and accelerate the application of knowledge to social challenges. Software enables new structures and efficiencies in organizations and

⁵ Thomas L. Friedman, *The World is Flat: A Brief History of the Twenty-First Century* (2005).

empowers new kinds of actors and networks. It is the “glue” of information integration and the “grease” of networked collaboration, and therefore a fundamental ingredient in the strategic mixture of changes that comprises “development” in all its dimensions: political, social and economic.

II. ENABLING THE CONDITIONS FOR ICT IMPACT

- **Political Development: Strengthening Governance, Law & Property Rights**
- **Social Development: Expanding Education & Digital Workforce Skills**
- **Economic Development: Investing in Infrastructure & Innovation**

Yet great software alone is not sufficient to create development impact. Despite the demonstrated power of ICTs in facilitating higher performance, their benefits are not realized by simply disseminating technology to every commercial entity or through each development initiative. Increasing connectivity or distributing computers and software will have limited impact on development unless a set of other factors converge within the larger setting of a developing “knowledge economy”.⁶ The networks, devices, software and content that comprise the full array of information and communications technologies in modern economies are a necessary, but not a sufficient condition for development.

1. Political Development: Strengthening Governance, Law and Property Rights

Underlying all successful development are the political conditions that provide basic levels of security, stability and public services. Knowledge-based economies must have laws and regulations that define and endorse private property, enforce contracts, support innovation and protect personal security and privacy. Economic development depends on a business climate that provides predictability, transparency, and the even-handed application of rules. While such considerations may seem obvious, certain policies and institutions are particularly crucial for the effective application of ICTs. Chief among these are the protection of intellectual property and the policies to assure widespread access to reliable and timely sources of information.

Property Rights: Real and Intellectual. Clear, transparent rules governing the ownership and transfer of tangible property substantially impact a country’s development prospects. For many underserved populations, homes and land are the only tangible assets. Ensuring that people can obtain and establish clear title to property is vital to developing a financial environment that is conducive to commerce and economic growth.⁷ In short, private investment is deterred or deflected elsewhere unless property rules are clear, reliable, and consistently enforced. Indeed, clearly defined and enforced property rules are widely viewed as a necessary pre-condition to meaningful participation in a market economy, and the lack of such rules can create significant disincentives to foreign investment.⁸ In the same way, as ideas become more and more the source of economic

⁶ OECD, *ICT and economic growth: Evidence from OECD countries, industries and firms* (2003). An important OECD study in 2002 concluded that, while there are good grounds for believing that the use of ICTs can be positively correlated to productivity growth, acquiring ICTs is not enough for countries to derive economic benefits.

⁷ Hernando de Soto, *The Mystery of Capital: Why Capitalism Triumphs in the West and Fails Everywhere Else* (2000).

⁸ UNDP, Rule of Law, Human Rights and Access to Justice, Chapter 4 in *Governance for the Future: Democracy and Development in the Least Developed Countries*, May 2006.

value, the incentive to innovate, and to invest in innovations to build products and services, depends on an expectation that the value of original ideas will receive legal protection. The World Bank's Knowledge Economy studies emphasize the importance, in this regard, of what the Bank calls the "Innovation System,"⁹ which encompasses research and development, investment in new products and ventures, and the regime of intellectual property protection.

Intellectual property rights (IPR) provide critical incentives for innovation, as they protect the work of any inventor, whether an individual, a research institution, or an enterprise. Just as robust tangible-property rights create incentives for people to invest in land, factories and machinery, strong IP laws, combined with reliable enforcement, encourage people to invest in developing new ideas and turning them into useful products. IP rights enable innovators to prevent others from simply copying a novel invention or original work, which in turn enables them to capture a portion of the economic value of their innovations in the marketplace. Innovators may extract the economic value of their efforts by commercializing the innovation themselves and by licensing it to others. Furthermore, the evidence suggests that the protection of intellectual property is a key factor not only in stimulating local innovation, but also in attracting foreign investment.

Intellectual property is of particular importance to the ICT sector, which is characterized by rapid innovation and high rates of investment in research and development (R&D). Without meaningful IP protection, ICT innovations—whether in hardware, software, or online services—are at constant risk of being copied by others. This risk of copying not only deters local ICT firms from innovating, but also discourages foreign ICT firms from establishing local R&D facilities or other ventures that could result in technology transfer to the local economy. Robust IP protections, by contrast, allow ICT firms to recoup the R&D investments embodied in their innovative technologies, which provides the funds for future rounds of R&D and product improvement.

Strong IP laws and effective enforcement are just as vital to innovation in developing countries, and arguably more so. Inventors and entrepreneurs in developing economies, no less than in developed economies, rely on IP rights to prevent others from copying their innovations and thereby "free riding" on their R&D investments. But the rate of innovation in a developing economy can also be heavily influenced by the willingness of foreign firms to establish local R&D facilities, through which technology transfer at a practical level often takes place, and it is here that IP rights can play a decisive role. Strong IP protection is invariably viewed as a positive factor by global innovative firms seeking to establish international R&D centers, because it reassures them that their investments and technologies will not be susceptible to copying or compulsory licensing.¹⁰

Also, in developing countries, small and medium-sized enterprises (SMEs) are often among the driving forces behind technology innovations. Their innovative and creative capacity, however, is not always fully exploited, as many SMEs in the developing world are

⁹ See Chapter 4 in Dahlman & Utz, *India and the Knowledge Economy* (2005). "The innovation system in any country consists of the network of institutions, rules and procedures that affect how the country acquires, creates, disseminates, and uses knowledge."

¹⁰ Carsten Fink & Carlos A. Primo Braga, "How Stronger Protection of Intellectual Property Rights Affects International Trade Flows," The World Bank, Policy Research Working Paper Series 2051 (1999); Lee Branstetter, Raymond Fisman, C. Fritz Foley, "Do Stronger Intellectual Property Rights Increase International Technology Transfer?," National Bureau of Economic Research, Working Paper No. 11516, July 2005.

either unaware of applicable IP laws or, perhaps more often, are not confident that such laws will be respected or enforced. Efforts to enforce existing IP laws, and to supplement them where gaps in coverage exist, can give SMEs the confidence that their innovative efforts will be rewarded in the marketplace.

Access to Information. The most effective use of ICTs also depends on a legal and policy environment that facilitates the access to information by all segments of society and assures widespread access to information. Concepts such as transparency and accountability mean little if official restrictions limit the availability of relevant information. In short, the effective use of ICT is not only a technical challenge, but a cultural and institutional one, requiring adjustments in basic patterns of social and individual behavior and ultimately in political attitudes.

The Role of ICTs: eGovernment. ICTs themselves are a key factor in developing the capabilities within governments to integrate information for decision-making, increase collaboration within and across government agencies, and transform the quantity and quality of government interactions with citizens and civil society. Software and communications networks become essential tools in achieving new levels of transparency and accountability for government actions, and improved productivity in the delivery of government services. Particularly effective uses of “eGovt” include the use of websites and electronic filing systems to reform and streamline government procurement systems, reduce the bureaucratic drain and drag of customs and immigration systems, automate tax filing and auditing, and develop electronic versions of land registry systems.¹¹

2. Social Development : Expanding Education & Digital Workforce Skills

Countries that seek to build and deepen the strategic role of information in their national development must invest heavily in their most important resource—the capabilities of their own citizens. Such investments include prioritizing education and learning, providing skills development and workforce training opportunities, and creating digital inclusion initiatives to enable as many people as possible to participate fully in a technology-driven economy.

Education. Investments in technology will do little to alleviate poverty or improve the lives of underserved communities unless they are matched by efforts to build the capacity of target populations to harness the opportunities that ICTs offer. Education and skills development are critical components in helping individuals, communities, and even entire countries thrive in the global information economy, and therefore should be central elements of any development agenda.

Digital Workforce Skills. ICT skills are vital to enabling individuals and organizations to leverage the full potential of information and communication technologies. Although certain forms of ICT, such as mobile networks, can be used effectively without widespread digital literacy or specialized training, it is equally clear that such skills are vital if users are to unlock the full potential of software and networking. Shortages of skilled ICT workers make organizations reluctant to invest in ICT, thereby curtailing demand for domestic ICT products and services and leaving fewer opportunities for entrepreneurs and

¹¹ *E-Government at the Crossroads: World Public Sector Report 2003*, Department of Economic and Social Affairs, United Nations (2003).

domestic ICT firms. A chronic shortage of skilled workers will impair a country's competitiveness not only in the ICT sector—one of the fastest growing areas of the global economy—but in many more-traditional sectors as well.

The Role of ICTs: Classrooms, Backrooms and Global Access. The use of ICTs to address these educational demands is being applied in all types of learning environments--primary, secondary, university, graduate and vocational, as well as through the distribution of content to individual learners. Curriculum is being developed and adapted to utilize the interactive communications potential of ICTs, as well as to enhance presentation skills through writing, computation and visual multi-media. Likewise, the ICTs promote the more efficient operation of schools and school systems, which allows more resources to be devoted to learning rather than administration. Finally, the increasing accessibility of information and presentations on a global basis has stimulated the potential of "distance learning" to reduce disparities in access to the best curriculum, content and teachers.¹²

3. Economic Development: Investing in Infrastructure & Innovation

Infrastructure and the Telecom/IP Transition. Information isolation is one of the great impediments to the broad-based development of knowledge economies. Many ICT applications therefore depend upon the expansion of network infrastructure to provide access to the content and communication that underlies the power of ICTs. No single architecture or network technology is adequate to this task, and in fact the diffusion of networks is likely to occur through a proliferation of interoperable technologies: wired copper, co-ax and fiber networks of both narrowband and broadband capacity, mobile cellular networks, wireless WiFi and WiMax from fixed transmission devices and satellites.

At the same time, the business models that stimulate investment in these networks are themselves adjusting to the new economics presented by various transmission and content technologies. Every country now faces a transition from the circuit-switched networks of the traditional telecommunications world to the Internet-centered infrastructure of IP-based technologies. This transition is not simply a shift in technology, but also a shift in economic value and business organization with enormous implications for all industry. Despite their differing origins, cultures and underlying technologies, the telecommunications, information technology, consumer electronics and media sectors are converging at a rapid pace. In the process, the regulatory and pricing models of the traditional telecommunications industry—with their built-in cross-subsidies and political priorities—are losing viability. In particular, the advent of broadband technologies, cellular networks, and Voice over Internet Protocol (VoIP) services is changing the economics of service and content delivery.

The policy and regulatory outcomes of this transition are consequently under intensive global debate at both national and international levels. For example, the agenda of the International Telecommunication Union includes a range of study-group deliberations on various aspects of what are called "Next Generation Networks" (NGNs). But the legal and administrative outcomes of these deliberations are still works in progress.

¹² See, e.g., *Closing the Gap in Education and Technology*, World Bank Latin American and Caribbean Studies (2003).

Access to Capital and Markets. Access to affordable capital and barrier-free access to markets are vital to economic development, and particularly critical to the ICT industry. Many ICT firms in the developed world initially relied on venture-capital financing, stock options, and similar sources of financing to survive in their first few years. Access to these less conventional sources of capital often spells the difference between success and failure. In poorer countries, the availability of ICTs is also related to the ability to obtain microfinance for small businesses.

Governments should seek to create incentives for these sources of financing, provide market access for foreign financial institutions, and ensure that rules regarding cross-border transfers of capital do not create impediments to affordable sources of capital. To facilitate e-Commerce and Internet services, governments should also remove regulatory barriers that might impede financial institutions from offering credit cards and similar financing options to consumers, and provide incentives and consumer protections to ensure that such credit options are available to underserved populations.

The Role of ICTs: Interoperability and Innovation. In today's heterogeneous IT marketplace, the ability of diverse IT applications or systems to exchange and use information—"interoperability"—is increasingly required by industry and governments alike. Whether sharing data between applications written in different programming languages, or trying to log on across multiple systems, the challenge is to enable different technologies to work together without compromising their distinctive underlying capabilities.

The continuous interaction among government, academic, and private research has always been the engine of innovation in the software ecosystem. Governments and universities undertake basic research and share this knowledge with the public. In turn, companies in the private sector use some of these technologies in combination with ongoing investment in research and development to create commercial products, while also contributing to the work of common standards bodies. Additionally, the long-established practice of cross-licensing intellectual property assets provides companies with access to a broad range of technologies to complement their own development efforts. Commercial success leads to greater employment and tax revenues as well as additional funding for academic research projects. This "virtuous cycle" has been the primary driver of sustained innovation, making information technology among the most dynamic of industries in the global economy.

To promote innovation and achieve the associated economic gains, governments should take care to encourage a diverse software economy. In particular, they should avoid mandating procurement preferences for any particular development or licensing model of software. Contrary to the arguments of some advocates of "Free and Open Source Software" (FOSS), software is not starkly divided between proprietary and open source licensing models. In reality, the industry will no doubt be characterized for years to come by products and services that draw on both models. And there is no basis for the suggestion that open source software is more flexible or interoperable than that developed on a proprietary or commercial basis.

III. MICROSOFT'S DEVELOPMENT PROPOSITION

For 30 years, Microsoft and its partners around the world have shared a vision – to help people achieve sustained social and economic opportunity through innovative technology.

Today, this vision has become a reality for over one billion people around the world who everyday are benefiting from the use of our technology. Our products help people explore information and communicate in ways never before possible. They help businesses become more productive and tap new markets. And they help governments and not-for-profit organizations provide new and needed services – or traditional services in more effective and efficient ways.

Through our global citizenship efforts, Microsoft committed to bring the benefits of technology to one-quarter of a billion under-served people by the end of this decade. Because of our technology skills training, software and hardware donations and a variety of programs aimed at increasing community access to technology, we are on track to meet this goal well ahead of schedule.

It's time for a new challenge. The vast majority of the world's population – some five billion people – still has little or no access to technology or the opportunities it offers. Building on our past efforts and our decades of business experience, research and development, and a rich ecosystem of local and global partnerships, we are expanding and accelerating our long-term commitment to bring the benefits of relevant, accessible and affordable technology to every person on the planet, starting with the next one billion by 2015.

Through Microsoft Unlimited Potential we have created new business models and technology solutions as well as expanded our citizenship efforts in an integrated, global effort to address the diverse issues faced by those who currently receive little or no benefits from technology. By tackling this issue from both a business and citizenship perspective, we are confident we can reach more people with the technology and services they need.

This is an ambitious goal, to be sure. It took an entire generation to reach the first one billion people. It may take another generation or longer to reach the next five billion. But we are dedicating ourselves to that goal because we firmly believe that everyone should have equal access to economic and social opportunity.

As we work to bring the benefits of technology to people around the world – from school children to the elderly, from poor rural farmers to displaced urban workers – we will to focus on the particular needs, interests and dreams of young people.

The generation of young people in school or entering the workforce is key to the economic and social health of every nation. Our passion is to empower young people to become innovators, create new businesses and to teach and inspire others; in short, to help them realize their full potential.

Built on the principles of relevance, access and affordability, Microsoft Unlimited Potential is focused on delivering solutions around three key drivers of economic opportunity: transforming education, fostering local innovation and enabling jobs and opportunities. This is where we believe Microsoft can have the greatest impact in creating a sustainable cycle of social and economic development.

Transforming Education – Education is the cornerstone of economic opportunity, so any efforts to help young people realize their full potential must begin here. Yet increased demand for secondary and higher education around the world has strained education infrastructures, created significant shortages of qualified teachers and impacted the overall quality of education. To help address this challenge, Microsoft works with partners, educators, governments and NGOs to increase access to technology that can improve the quality of teaching as well as the learning experience for students of all ages - - literally shaping the way education happens.

We are transforming education through several ongoing efforts, including:

- Grants, skills training and low-cost software programs such as Partners in Learning for students and teachers;
- Advanced tools for teaching and learning such as Microsoft Math, Live Classrooms and Digital Study Hall;
- Expanded access to limited technology resources through Multipoint that enables up to 50 students to use a single PC simultaneously; and
- Providing low-cost laptops for educators through Classmate PC.

Fostering Local Innovation – A strong education system enables a community to develop its workforce, create jobs and improve competitiveness. Opening the world of computing to additional languages and cultures – and enabling creative technology solutions to meet unique local and business needs – can translate into new opportunities for communities under served by technology around the world.

Microsoft aims to foster local innovation both through knowledge transfer – empowering individuals and businesses with technology skills and supporting a healthy local software ecosystem – as well as providing tools and technologies that broaden access to technology, build local skills capacity and enable new businesses.

We are currently fostering innovation through several ongoing efforts, including Microsoft Innovation Centers where students, developers and IT professionals have access to world-class facilities, consultants and technology resources. In addition we are:

- Providing software and services in over 100 languages;
- Developing a software toolkit that enables a PC and mobile phone to function as an SMS (Short Message Server) server; and
- Sponsoring an annual technology competition for students called Microsoft Imagine Cup.

Enabling Jobs and Opportunities – A strong technology infrastructure makes communities more appealing to local, regional and global businesses and investors. It bolsters economic growth and global competitiveness and stimulates jobs and personal achievement. Working in partnership with governments, businesses and academic leaders, Microsoft is helping to address the growing employability gap by accelerating skills development, expanding entrepreneurship and assisting employers with finding qualified candidates.

We are currently helping to enable job creation and economic opportunities through programs such as Partnership in Technology Access that delivers affordable PCs to small businesses in communities under served by technology through innovative financing programs. We also are:

- Providing technology skills through community technology centers in 102 countries;
- Creating and distributing best practices in bringing information and communications technology to rural communities; and
- Exploring innovative business models that enable lower-income customers to acquire PCs using affordable subscription or pay-as-you-go methods.

Helping more of the world's population seize new opportunities and realize their potential requires only two raw materials: intellect and imagination. Technology is a powerful amplifier of these factors, and although it is only one piece of the solution to the economic development puzzle, it is a critical investment for any country seeking to promote growth and create new opportunities.

Microsoft Unlimited Potential aligns the company's technologies, partnerships, business and corporate citizenship values and work in a concerted effort to bring the benefits of information technology to the five billion people who currently do not have access to it – and to enable sustained social and economic opportunities for communities around the world.

For more information about specific Microsoft Unlimited Potential programs and solutions, please visit www.microsoft.com/unlimitedpotential