



MICROSOFT UNLIMITED POTENTIAL

Enabling Sustained Social and Economic Opportunity for the Next Five Billion People

Microsoft

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Introduction

Economists and policymakers agree that investments in technology are crucial to economic growth and development. This view is supported by extensive research that clearly demonstrates its impact on business productivity, competitiveness, job creation and many other factors—and also by broad anecdotal evidence of technology’s transformative power. Yet the vast majority of the world’s population—some five billion people—still has no access to technology or the opportunities it offers.

No two parts of the world are alike—and, as many nations and institutions have learned, technology is no “magic bullet” for economic development. Nor is any single company able to deliver on the complete range of factors that must be addressed—from basic physical infrastructure to market openness and efficiency. In fact, if any one of these falls short, economic growth can stop as quickly as it started.

Nonetheless, technology in all its forms has tremendous potential to connect communities, address crucial pieces of the global economic development puzzle, and facilitate healthy, sustainable growth. The key is to apply it strategically and thoughtfully, in a way that suits each country’s unique needs.

Building on decades of business experience, research and development, corporate citizenship efforts, and a rich ecosystem of about 750,000 partners around the world, Microsoft is now strengthening its commitment to helping enable social and economic empowerment. For example, the company has committed to bring the benefits of technology to about a quarter of a billion people by the end of this decade. Through technology skills training, software and hardware donations, and a variety of programs aimed at increasing community access to technology, Microsoft is on track to meet this goal well ahead of schedule.

Now, with a long-term initiative known as Microsoft® Unlimited Potential, the company is expanding on this work with new business models, technology solutions and advanced research, all focused on solving critical pieces of the economic-development puzzle. This broad range of offerings—built on partnerships with businesses, governments and non-governmental organizations NGOs—extends the company’s previous goals for the reach of technology. It aims to bring the benefits of relevant, accessible and affordable software to 5 billion more people, with a goal of reaching the first 1 billion by 2015.

Microsoft Unlimited Potential brings our new and existing programs together in a coordinated effort to help address the diverse business and social issues faced by those who currently receive little or no benefits from technology. It aims to catalyze

this global community in a meaningful and relevant way, helping to create an environment that helps them make the most of their skills and abilities. For example, it will help empower young people to become innovators, to create new businesses, and to teach and inspire others; in short, it will help them realize their full potential.

The Economic Growth Puzzle

When ranking the economic strength of nations, the World Economic Forum’s Global Competitiveness Index considers nine factors that are critical to promoting productivity and supporting national competitiveness. First are the basic requirements—functioning, credible institutions, healthy macroeconomic conditions, adequate infrastructure (from roads to telecommunications), and health and primary education systems. Once these basics are in place, growth is increasingly driven by factors that enhance productivity—such as secondary and higher education, market efficiency and technological readiness—together with a regulatory and business climate that promotes growth and encourages new ideas.



An evaluation of these nine factors in a range of countries indicates that emerging markets still face many challenges in achieving substantial, sustainable economic development. According to the World Economic Forum, the barriers to growth are often not what they seem—and vary significantly from country to country. Despite India’s impressive recent growth, for example, it is still only the 43rd most competitive economy in the world, held back by challenges in infrastructure and primary education. Russia also ranks below its economic peers in primary education, while China and Mexico fall behind in higher education, despite ranking high on other factors. Similar patterns emerge in a number of other countries. These complex and diverse challenges require sophisticated approaches to development that are tailored to each nation’s unique needs.

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Technology can play a key role in improving each of these critical factors. It can enable government institutions and services to become more efficient and transparent. It can help promote productivity, market efficiency and more effective business practices, contributing to economic growth. Wide deployment of computers, software and telecommunications helps increase efficiency and reduce transaction costs across all segments of the economy. Computers, mobile devices and software can vastly improve the quality and efficiency of healthcare and help increase the availability of quality education at every level.

Evolving the IT Business Model

Today, nearly all of the IT sector's revenue comes from businesses, consumers and governments in the developed world. Most consumers and businesses pay the full price upfront for PCs and packaged software. Devices and software are largely designed for use by individuals on PCs and devices they use exclusively. And products and services are generally priced to appeal to consumers with significant disposable income, or businesses with enough resources to make large and continuing investments in IT.

This business model works well for a relatively thin slice of customers—the roughly 1 billion people living near the top of the economic “pyramid.” But there are billions of other individuals living in under-served communities throughout the world—in both developing and developed countries. Microsoft's founding vision of “a computer on every desk and in every home” is a reality for the nearly 1 billion people who use PCs today, but what about the majority of the world's population who haven't yet benefited from information technology—or, for that matter, electricity and other conveniences of modern society?

To better reach those who are under-served by technology, the IT industry needs to evolve its business model—to dramatically revise its assumptions about what customers need and the economic models that support sales and use. Specifically, it needs to move toward more flexible models that better addresses customers' specific challenges. It can do this by building on technologies and business models that are in widespread global use, such as mobile phones. Approaches to licensing should evolve from the “pay upfront” model to more flexible (and commonplace) subscription or installment plans that are more suitable for individuals and businesses with little upfront capital or less predictable income. It's also time for the industry to embrace the concept of shared access in products and business models: software and solutions that enable students, families and communities to share costly or limited technology resources. And the industry needs to focus on helping people achieve substantial and sustainable economic advancement.



Microsoft's approach to this is built around three core principles:

- **Relevance:** Technologies and services that work well in the developed world may not always be appropriate for the developing world. The IT industry must offer software and services in people's local languages and dialects, adapted to their culture. This includes software interfaces that use graphics and sounds rather than text, to better serve the needs of young children and less literate populations. Solutions must truly address the social and economic needs that are central to their lives, such as helping improve children's educational opportunities, offering skills-building solutions for adults, and helping enhance communication with friends and family.
- **Access:** Ensuring that every individual has their own computer is not always the most effective way to bring the benefits of technology to all. For example, shared access through Internet cafés, libraries, schools and community centers is already common in many emerging markets. By helping make it easier for students, families and communities to use technology together, the IT industry can help lower costs and provide additional value from shared computing resources.
- **Affordability:** The IT industry must work harder to reduce the cost of technology and develop a flexible, sustainable business model that makes it available and affordable to all. This includes lowering the cost of hardware by developing new, inexpensive devices, and making use of the tens of millions of donated and refurbished PCs that come to market every year. It also includes addressing the needs of people who have little disposable income (or access to credit), with flexible payment methods such as installment plans, pay-as-you-go cards, and subscription-based services.

Reaching under-served communities requires a deep commitment to communities and partnerships: the IT industry's role should be not only to deliver technology solutions, but also to catalyze the efforts of communities to develop new ways to

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achieve sustainable development. This means participating in ongoing dialogue with those communities, and tapping into the knowledge and unique capabilities of governments and NGOs that have a deep understanding of their local communities.

Microsoft Unlimited Potential: Empowering the Next Five Billion

Through a combination of advanced technologies and strong partnerships with governments, partners, NGOs, educators and academics, Microsoft Unlimited Potential takes an innovative approach to help enable new avenues of social and economic empowerment for the majority of the world's population. Built on the principles of relevance, access and affordability, the initiative is focused on delivering solutions in three key, interrelated areas that are foundational drivers of economic opportunity: transforming education, fostering local innovation, and creating jobs and opportunities. This is where we believe Microsoft can have the greatest impact in creating a virtuous cycle of sustained social and economic development.

Sustained Social & Economic Opportunities



Enabling High-Quality Education for Everyone

Education is the cornerstone of economic opportunity, so any efforts to help young people realize their full potential must begin there. Increased demand for secondary and higher education around the world has strained education infrastructures and created significant shortages of qualified teachers. To help address this challenge, Microsoft is working with partners, educators, governments and NGOs to increase access to quality education through dynamic, learner-focused technologies and resources. We are committed to helping improve the quality of teaching and learning, and helping people of all ages learn valuable new skills. We are now building on these efforts with a comprehensive offering of customizable education

solutions, targeted where the need is greatest, and focused on enabling schools, teachers and students with a comprehensive set of innovative educational tools.

Partners in Learning: Partners in Learning is a five-year, US\$250 million program that broadens access to technology and helps educators transform teaching and learning. Through a range of specially developed tools and curricula, teacher training programs and low-cost software, the program is active in 101 countries and has equipped 2.5 million teachers and reached more than 57 million students across these countries. In addition, through the Partners in Learning program, over 722,000 teachers and students have achieved certification on Microsoft technology.

Microsoft Student Innovation Suite: Through the Partners in Learning program, Microsoft will offer a more affordable and reliable software package for governments purchasing and giving Windows®-based PCs to primary and secondary students for their personal use at home and for schoolwork. The suite includes Windows XP Starter Edition, Microsoft Office Home and Student 2007, Microsoft Math 3.0, Learning Essentials 2.0 for Microsoft Office, and Windows Live™ Mail desktop. Microsoft will offer this suite for US\$3 to qualifying governments that purchase and supply PCs directly to students.

Advanced tools for teaching and learning: Microsoft's key investments in education include the creation of new tools and services that help enable quality, motivating learning experiences. These efforts include Microsoft Math, a set of tools and tutorials to help students visualize and solve math and science problems; Digital StudyHall, which distributes DVD courses from skilled teachers to rural or low-income areas; and a new set of education authoring tools that enable publishers to create and assemble vibrant local learning content that can adapt to individual learning needs.

Expanding access to limited technology resources: Many communities need to find ways to make the most of the limited computing resources they have. One example of maximizing shared resources is Windows® Multipoint™, a project developed by Microsoft Research India that enables up to six students to use a single PC simultaneously using multiple mice with color-coded cursors. Initial research has shown that children immediately grasp the concept and are comfortable and engaged when sharing a PC in this way. Microsoft recently released a software development kit to enable new applications and curricula to be created using Multipoint, and introduced it for use in the Microsoft 2007 Imagine Cup, where student developers from around the world will compete to develop the best new education applications.

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Low-cost laptops for education: Microsoft is working with a variety of companies and organizations to lower the cost of hardware and software for education. For example, the company is partnering with Intel on the Classmate PC, an affordable new mobile computer designed for primary-school children in emerging markets. These highly capable laptops are equipped with Windows and Office, and will take advantage of the wide range of specialized education software available for the Windows platform. Microsoft is also making significant contributions to Intel's Teach to the Future initiative, which aims to help improve global teaching and learning through the integration of technology in education via innovative teacher training programs.

Fostering Local Innovation

Once a community has a strong education system, it is better able to develop its workforce and lay the groundwork for further economic growth. Opening the world of computing to other languages and cultures—and to help enable creative technology solutions that meet unique local and business needs—can help translate directly to new opportunities for under-served communities 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.



Supporting local software economies: Microsoft Innovation Centers support the growth of healthy local software ecosystems by helping customers and partners plan, research and develop new software products and services. In 60 countries worldwide, 110 Innovation Centers offer students, developers and IT professionals access to world-class facilities, consultants and resources. The centers focus on developing skills and intellectual capital; supporting industry, academic and government partnerships; and offering hands-on technology experience. Microsoft plans to extend its resource investment in these centers

over the next two years and anticipates opening and supporting 200 more centers in an additional 25 countries by 2009.

Windows Starter Edition: Designed for first-time PC users in developing countries, Windows Starter Edition is now the fastest growing edition of Windows, providing users who are new to computing with an affordable operating system and set of essential features. It offers both localized and customized support, step-by-step guidance, and interactive video demonstrations that help users perform essential computing tasks. Windows Vista Starter Edition has launched in 72 languages and 140 countries around the world. The company is also working to make Windows available on other low-cost hardware platforms, through partnerships with Intel and other companies and organizations.

Localization: People clearly get more out of technology when it works in their own language. Lowering this barrier to usage can greatly improve productivity and help enhance teaching and learning. It can also help nurture new businesses in technology and many other fields. For more than two decades, Microsoft has worked with local communities to make software and services accessible and available to the broadest possible audience—via standard localization of its products into widely spoken languages, and IT skills training curriculum available in 21 languages, and Language Interface Packs that help local developers more easily extend the reach of computing to less common languages. Today, our products, services and training cater to more than 100 languages, bringing the power of computing to under-served communities throughout the world, such as Quechua-speaking Native Americans in South America, and Gaelic-speaking communities in Ireland.

Mobile phones: It may not always be practical to own a PC in areas with unreliable electrical power or high crime rates, but mobile phones are cheap to acquire, highly portable, easy to recharge, and take advantage of a reliable network infrastructure that is already in place in most countries. Mobile phones are therefore one of the simplest entry points to computing for under-served communities, and future developments can build on these strengths to create growth and opportunities. For example, Microsoft Research India has developed a software toolkit that enables a PC and mobile phone to function as an SMS (Short Message Service) server, so individuals can perform basic computing tasks by exchanging text messages with a centrally-located PC. In the Indian village of Warana, this toolkit is powering a widely used service that helps enable farmers in a local sugarcane cooperative to manage their accounts, check prices and schedule harvests via their mobile phones. As a result, tasks that once took days to accomplish in person can now be done remotely in minutes.

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Rural computing: Many of the greatest opportunities for technology to spark growth and development lie in rural areas. But these areas are also some of the toughest to serve, since they are often economically challenged, and lack adequate electrical power and telecommunications infrastructure. Many of the programs and solutions described in this paper are uniquely suited to serving rural markets, and the company is also embarking on further efforts to help these communities increase productivity and do business in global markets. For example, the company has partnered with the Academy for Educational Development and telecentre.org to research and produce a comprehensive resource guide that can help organizations create a relevant, effective and scalable technology infrastructure.

Stimulating Jobs and Opportunities

A strong technology infrastructure makes communities more appealing to local, regional and global businesses and investors, help bolstering economic growth and global competitiveness as well as stimulating jobs and personal achievement. Through technology access programs and support for local software economies, Microsoft is committed to help increase growth and economic development through effective use of technology, and supporting local hardware, software and services companies.

Partnership for Technology Access: Implemented in collaboration with local governments and NGOs, this program delivers affordable PCs to small businesses and under-served communities through innovative financing programs. In Egypt, it is helping to enable many of the working poor to acquire PCs with low monthly payments, helping them improve their skills and get better jobs. In Nigeria, it is helping government workers pay for new computers using their paychecks as collateral. And in the Philippines it is offering overseas workers a chance to get their own PC and communicate easily with their families back home.

Windows® SteadyState™: Although community centers, libraries and Internet cafés are a popular means of computing access in the developing world, operators often struggle to keep systems updated to ensure security, privacy and reliability—while also addressing community concerns such as access to violent games and pornography. Windows SteadyState is a free download that hundreds of thousands of community centers, schools, libraries, and iCafe operators are using to prevent unauthorized access and changes to system settings, and to offer a consistent, familiar and private experience for users. In India, the toolkit is helping rural villages build PC-based kiosks to connect residents with education, health and government services. In other countries, including Turkey and Ukraine, it is helping Internet café operators improve reliability, safety and security.

Community Technology Skills Program: Microsoft Unlimited Potential greatly expands on Microsoft's previous work to broaden digital inclusion and support workforce development by helping to provide technology skills through community technology centers. Today, Microsoft is supporting 29,000 community technology centers in 102 countries through grants of cash and software, a specialized curriculum available in 21 languages, and telecentre.org's global network.

Alternative business models for technology access: Until recently, many customers in under-served communities have not been able to acquire their own PC due to a lack of available consumer credit or unpredictable incomes. Implemented through trial programs in Brazil, Mexico and India, FlexGo™ is one example of Microsoft's efforts to explore innovative business models that enable lower-income customers to acquire PCs using affordable subscription or pay-as-you-go methods.

Microsoft Authorized Refurbisher program (MAR): As companies invest in new technologies, they are creating a vast pool of older but still-usable PCs that can be redeployed to serve communities in the developing world. Analyst firm Gartner estimates that two-thirds of used PCs are simply discarded or stored. MAR helps organizations donate used computers to be refurbished and put to work in communities around the world, while also reducing the environmental impact of discarded equipment. Additionally, Microsoft's Fresh Start for Donated Computers program is helping ensure that computers given to schools and community centers stay secure and up-to-date with genuine Microsoft software.

Conclusion

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 for 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 work in a concerted effort to bring the benefits of information technology to people who are under-served today—and to help enable sustained social and economic opportunities for communities around the world. Through a comprehensive and complementary range of technologies and programs that address critical pieces of the economic-development puzzle—built on strong partnerships with governments, businesses and researchers—Unlimited Potential will help people from all walks of life to participate fully in the benefits and opportunities of the global knowledge economy.