

Partners in Learning Progress Report 2007

Executive Summary

Microsoft



Overview

Transforming Education for the 21st Century

Over the past 30 years, information and communications technology (ICT) has become a powerful engine of economic growth. To be sure, it is only one factor in the complex socioeconomic development puzzle. But one thing is certain: a good education and at least basic computer skills prepare people in developed and emerging nations alike for jobs in the 21st Century workplace.

For more than a decade, Microsoft has actively explored what it can do as a technology industry leader and corporate citizen to help address these needs.

In 2003, the company launched Partners in Learning (PiL), a US\$250 million, five-year global initiative designed to increase technology access for schools, foster innovative approaches to pedagogy and teacher professional development, and provide education leaders with the tools to envision, implement, and manage change. Since then, the program has touched the lives of more than 80 million students, teachers, and education policymakers in 101 countries.

Partners in Learning is unique not only in its scope but also in its structure, which is based on collaborative agreements with governments and nongovernmental organizations. Public-private partnerships on this scale and of this nature were new to Microsoft, and indeed to many in the education community. The initiative is also notable for its engagement at every level of the education sector—from ministries of education to school leaders, teachers, and students.

Partners in Learning programs have evolved and been adapted in numerous ways, but the basic framework, strategy, and toolbox of resources have remained constant. The key elements of the initiative are:

- Technology access
- Curriculum and training resources
- Grants to governments and educational organizations

Three Partners in Learning programs directly address the need for affordable and legal software for school computers. Fresh Start for Donated Computers removes barriers to the use of donated computers lacking a licensed version of Microsoft Windows. The Microsoft Student Innovation Suite and the School Agreement subscription licensing program offer significant discounts on Microsoft's most popular learning tools to eligible governments and schools in economically disadvantaged countries.

Partners in Learning also offers a range of resources designed to stimulate advances in teaching and learning. Some of the programs focus on technology skills training and professional development. Others promote leadership skills and teaching methods that foster critical thinking and independent inquiry among students. One thing the programs have in common is the potential to spark systemic change, particularly in more traditional education systems.

To help teachers effectively integrate ICT skills into teaching and learning and to engage students in inquiry-based learning, Microsoft created a comprehensive technology skills curriculum called the Information and Communication Technology Skills and Resources Training Kit.

Partners in Learning also provides grants to governments and educational organizations to support local implementation of innovative teaching and learning initiatives as well as programs aimed at meeting specific local needs. Since 2003, more than US\$150 million in grants have been distributed worldwide.

In October 2007, Microsoft published an in-depth report on Partners in Learning. (<http://www.microsoft.com/education/partnersinlearning.mspx>). This executive summary offers a briefer look at some of the programs that are making a lasting impact on teaching and learning—from the cities of Philadelphia and Buenos Aires to remote villages in India and rural communities in Thailand.

Partners in Learning

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Peru

United States

Brazil

Colombia

India

Egypt

Singapore

To read the full progress report, please go to:
www.microsoft.com/education/partnersinlearning/2007progressreport.msp

Innovative Learning

PiL is providing educators with new methods to equip students with critical thinking, problem solving and technology skills.



United Kingdom:

Transforming Students into Lifelong Learners

The British education system has produced some of the greatest writers, scientists, and thinkers of the modern world. But in recent years, educators and policymakers have begun to question whether the country's highly structured national curriculum and emphasis on high-stakes examinations are developing the knowledge and skills that students need for the 21st century.

Designed by UK research organization Futurelab and supported by a US\$2 million grant from Partners in Learning, Enquiring Minds is an innovative approach to learning that looks beyond test results toward a different goal: enabling children to become effective researchers, innovators, and creators of knowledge.

Enquiring Minds is not so much a curriculum as an ongoing experiment in forging new models for teaching and learning. It includes activities and strategies that support students in creating coherent plans for their own learning, and it incorporates digital tools such as collaboration software, digital cameras, and laptop computers. It also explores new approaches to assessment—evaluating students' skills as collaborators, researchers, and innovators.

Futurelab is currently piloting the program in two schools in the Bristol area, which are serving as models for a dozen other schools in the UK that will implement the program in the coming years. The results from these pilot schools will inform a broader transformation of curricula in the UK that is part of Building Schools for the Future, the government's effort to rebuild or renovate every secondary school in the country in the next 10 years.

Singapore:

The Classroom of the Future, in Schools Today

Singapore's education system has a long history of quality and efficiency, backed by a track record of high student achievement. Yet this prosperous city-state is always looking for new ways to ensure that its students are better prepared to participate in societal and economic advances. This spirit of continuous improvement inspired the Infocomm Development Authority of Singapore and Microsoft to initiate Backpack.NET, an ambitious program that aims to encourage inquiry, creativity, and student-centered learning through advanced applications of ICT in the classroom.

The program includes a series of pilot initiatives to put advanced technology into students' hands, showcase future educational scenarios, support local development of innovative teaching and learning software, and promote research that explores the relationship between technology and pedagogy.

At Crescent Girls' School, a Backpack.NET "pioneer school," all 1,600 students have their own Tablet PC loaded with a suite of specialized applications developed by local software companies. Digital multimedia textbooks have replaced hardcover versions in many subjects. Most of the students' class schedules, syllabi, and assignments are stored on the school's Web site. And instead of taking notes on paper, students are drawing visual "mind maps" to help them understand what they're studying. As they use their Tablet PCs in class, the students are supported by researchers and developers who are monitoring their use of the technology and developing new applications that further enhance teaching and learning.

The hands-on research at the school reflects the unique approach of Backpack.NET: systematically developing and testing advanced technologies in a real classroom environment, and then taking that knowledge and applying it to new kinds of applications and teaching techniques that can be extended to other school systems.

Partners in Learning is designed to increase technology access for schools, foster innovative approaches to pedagogy and teacher professional development, and provide education leaders with the tools to envision, implement, and manage change.

Australia:

Learning with Games and Spatial Technologies

Educators in Australia's eastern state of Queensland are at the vanguard of efforts to understand how computer games, spatial technologies, and other digital innovations can enrich teaching and learning, particularly for students who don't respond well to traditional teaching methods. Through a partnership with Queensland's Department of Education, Training and the Arts, Partners in Learning is funding programs that bridge the gap between education that is relevant and learning activities that are fun and engaging.

At Gympie State High School, teacher Ken Brady is actively engaging at-risk students in a range of subjects by tapping into their curiosity about computers and software. He is also introducing a three-year certificate course in Interactive Entertainment that will open doors for students interested in further studies at university and jobs in Brisbane's fast-growing games software industry.

At Kurwongbah State School, students in a class of 10- to 12-year olds are playing Viva Piñata, a Microsoft Xbox 360 game, as part of a learning unit on the environment. Exploring the virtual gardens of Piñata Island, students learn about the effects of various activities on the environment. Their play also helps develop skills in problem solving, decision making, planning and organization, and it nurtures social skills by requiring them to listen, share, clarify, and negotiate as they work together.

Meanwhile, in Sally Vellar's ninth-grade geography class at Coolum State High School, students are using spatial technologies to investigate pollution of a local swimming hole. Spatial technologies such as geographic information systems and the Global Positioning System are increasingly important in mapping, navigating, collecting, analyzing, and modeling geographic information. At Coolum and other schools in Queensland, they are being used as learning tools to engage students in exploring the world around them.



Professional Development

Programs such as Peer Coaching and Student Help Desk provide training and resources to enable more effective use of technology in the classroom.



Brazil:

Innovation in a Challenging Environment

At many schools in less prosperous areas of Brazil, it's hard to imagine how technology can make an impact. Teachers work overtime in overcrowded schools, textbooks and supplies are scarce, and buildings are often in need of repair. Schools with computer labs often keep them locked all the time, for fear of theft or vandalism.

But once teachers and school administrators understand the value of technology and have the tools and skills to make use of it, they see how it can help them perform their “everyday miracles”—opening children’s eyes to the world beyond their neighborhood, giving them focus and discipline, and showing them new ways to express themselves.

Three innovative Partners in Learning programs—Student Help Desk, ICT for Principals, and Peer Coaching—are helping schools to better maintain and use their computers, while inspiring teachers to embrace technology as an empowering tool for teaching and learning.

At the Isaac Schraiber School in São Paulo, principal Edilamar Caoneto Zago used the knowledge and insights she gained from the ICT for Principals program to find a new way to motivate her students. Using digital cameras and Windows Movie Maker, students documented the badly polluted stream that ran behind their school, producing a short movie that inspired the community to clean it up six years ahead of schedule.

Although Brazil still faces many challenges as it works to improve its education system, Partners in Learning programs have helped the country make optimal use of the technology resources it already has, while building a sustainable and scalable foundation of skills and generating enthusiasm for further advances.

Argentina:

Educational Innovations, Built to Last

Although Argentina has one of the most advanced education systems in Latin America, the benefits of technology have yet to spread to many of the country’s schools. Many schools lack equipment and connectivity, and the country’s decentralized system makes it difficult to ensure that all students have access to computers or that every teacher has the skills to use them effectively.

To address this challenge, the Partners in Learning team in Argentina helped develop a comprehensive set of programs to give teachers at all skill levels the ability to use technology effectively. INTENT.AR is a series of large-scale teacher training events for computer novices covering basic productivity applications, Web browsing, e-mail, and Internet security. Par@educ.ar is an Internet portal that combines state-of-the-art curriculum with guidance on teaching practices to help more technologically savvy teachers develop exciting new approaches to learning.

To recognize Argentina’s most innovative teachers, the team produced a series of more than 100 television documentaries that shared those teachers’ best practices with more than 250,000 educators around the country. The team is also rolling out the Peer Coaching program nationwide, aiming to reach 4,000 teachers in 2007 in an effort to promote ongoing collaboration and professional development.

All of these efforts work in concert to address the wide range of teacher training and professional development needs in Argentina. Although the programs are diverse, they share a few common features: They are built on strong partnerships with leading institutions, academics, and nongovernmental organizations. They are designed to reach teachers at every skill level. And they aim to be sustainable well beyond Microsoft’s initial involvement and scalable to potentially every teacher and student in the country.

The Developing World

PiL is enabling greater access to computers and providing ICT skills training to help educators in developing nations.



India:

Scaling ICT Skills Training for Teachers

With an economy focused squarely on the future and a population of 1.1 billion and growing, India is both hurtling into the 21st century and struggling to bridge the enormous gaps between rich and poor. The challenge is how to provide more people with the skills they need to rise out of poverty—and to tap the country's tremendous human capacity and potential.

For nearly four years, Microsoft has worked with government officials and educators throughout India on a series of computer literacy and education leadership initiatives known collectively as Project Shiksha. Among the accomplishments of Project Shiksha to date has been the training of more than 160,000 teachers in the use of ICT in the classroom.

Taking these efforts to the next level, Microsoft is partnering with state education departments, colleges, and universities to incorporate mandatory pre-service ICT curricula into India's teacher training system. Pre-service teacher education is a critical entry point for embedding ICT into India's school system—not only because it has the potential to scale so significantly but also because younger teachers are often more open to new approaches and methods.

In the next year alone, 50,000 to 60,000 new teachers will receive ICT skills training through Microsoft's pre-service initiatives. These teachers will, in turn, reach an estimated 25 to 30 million students.

The first and largest pre-service teacher training project, in the state of Maharashtra, will introduce a Microsoft-developed ICT curriculum into teacher training programs at 530 colleges. The aim is to provide 105,000 student teachers over the next three years with the skills and confidence to incorporate technology into K–12 classroom instruction. They will introduce the benefits of technology to approximately 5 million students.

Colombia:

Expanding Technology Access in Emerging Markets

On the rocky bank of a meandering stream in the Colombian countryside, a donkey with a large box strapped to its back delivers a refurbished computer to a small school near the agricultural community of Piendamó. An unusual method of transporting computers, to be sure, but pack animals often are the most viable transportation option in this isolated corner of the country.

Getting PCs into Colombia's schools, including those in the remotest areas, has been a government priority since the late 1990s. In a developing country such as Colombia, where only 6 percent of the general population has access to computers, a combination of refurbished PCs and innovative software licensing programs offered by Microsoft has dramatically increased the number of computers in schools—from one computer for every 142 students in 2002 to one for every 48 students by 2006.

Access to computers and the software needed to use them is the first step in tapping the power of technology to enrich teaching and learning. To help make technology more accessible, Partners in Learning includes two programs: Fresh Start for Donated Computers and the School Agreement subscription licensing program. Fresh Start gives older PCs a new lease on life by offering schools proper documentation and free installation CDs for Microsoft Windows 2000 Professional Edition. School Agreement offers significant discounts on Microsoft's most popular learning tools to eligible schools in economically disadvantaged countries and communities.

Over the past seven years, Computadores para Educar, a consortium of three Colombian government agencies that partners with Microsoft and other private companies, has collected, refurbished, and distributed more than 71,000 PCs to over 7,000 schools.

ICT Skills

Training resources are helping teachers and students develop important technology skills.



Estonia and Hungary:

Preparing Students to Meet Tomorrow's Challenges

Estonia and Hungary joined the European Union in 2004, deepening their connections to the global economy and creating new opportunities for their citizens. Ensuring a solid foundation of technology skills is one way these countries are staying competitive and making the most of their EU membership.

Although most educators in Estonia have basic technology skills, many have used computers only for administrative tasks and not in their teaching. Through the Projektipaun program, teachers are learning how to use technology to deliver rich, exciting project-based lessons that focus on real-life issues and problems. This program makes use of the Partners in Learning ICT Skills and Resources Training Kit, a set of five curriculum modules designed to help educators teach technology skills and promote inquiry-based learning.

“We want Estonian schools to be more open, flexible, and student-centered, offering many different possibilities for each child to develop in their own way. Project-based methods are very important to this,” says Enel Mägi, CEO of Tiger Leap Foundation, an organization created by the Estonian government to manage all aspects of ICT in the country's schools. “Microsoft's curriculum fit very nicely into this approach.”

In Hungary, the Partners in Learning team helped address a different challenge: the low level of technology skills among the country's students. A 2005 report found that 34 percent of Hungarian students lacked any technology skills whatsoever. Using a wide range of programs, from support for intensive teacher training to the development of *101 Ideas for Innovative Teachers*, a booklet offering simple tips for technology-based lessons in 10 subjects, the team was able to help dramatically reduce the percentage of students without technology skills to less than 8 percent in 2007.

Egypt:

Inspiring a New Generation of Software Developers

Egypt's demographic profile is trending toward an increasingly young population: more than 30 percent of the country's citizens are under the age of 18. Ensuring that these young people can get good jobs and participate in the global economy has become one of the country's highest priorities. Yet Egypt's education system struggles to accommodate this large and growing student population.

To help make students more employable without further burdening an overwhelmed school system, Partners in Learning collaborated with Egypt's Ministry of Education to create the Junior Developer Program (JDP), which teaches middle-school students programming and Web design skills at a young age—and thereby plants the seed for a more capable workforce in the future.

In the schools where it has been implemented so far, the JDP has done far more than cultivate a new generation of software developers. Students are inspired and encouraged by their experiences with technology, often creating innovative new programs and Web sites that go beyond their projects' requirements. And they've brought this enthusiasm into their other classes, where they are helping their teachers make better use of limited technology resources.

The program was originally offered as a free summer course. But as more teachers, parents, and students have heard about the JDP, demand has grown. Last year, applicants outnumbered available slots by three to one. Inspired by this success, the ministry decided to make the program available as elective courses during the regular school year, with a projected reach of 10,000 students by 2010.

Leadership

PiL supports a range of programs that help education leaders make fundamental changes in the teaching and learning environment.



Thailand:

Ensuring Successful, Sustainable School Reform

As Thailand kick-starts a long-awaited decentralization of its public school system—putting control of budgets, personnel, and academic affairs back into the hands of local communities—the country’s Ministry of Education needs to ensure that teachers and school administrators are equipped to lead this change and use their newfound freedom to improve the quality of education.

Through Learning to Lead Change, a workshop developed for Partners in Learning by international education reform expert Professor Michael Fullan, more than 13,000 educators throughout Thailand have learned strategies and tactics to prepare for decentralization and help create a sustainable culture of leadership, collaboration, and innovation in their schools.

When good educational ideas and policies fail to be implemented, or when they succeed in one situation but not in another, the missing ingredient is often “change knowledge”—insight into the process of change and the skills needed to implement it successfully. Learning to Lead Change explores seven aspects of the change process and helps school leaders relate them to their own work through group discussion, case study analysis, and team projects.

This program is helping the Thai government address a crucial issue that, if left unaddressed, could seriously impede its efforts to advance the country’s school system. Many education leaders walk into Professor Fullan’s workshops with the heavy burden of a major impending reform and little idea of how to manage it. They leave with a renewed sense of purpose, excitement about a new spirit of collaboration, and a toolkit of techniques and insights to help them deliver a better education to every student in Thailand.

United States:

Hands-on Projects Nurture Lifelong Learning Skills

Project-based teaching methodologies, innovative uses of technology, and a focus on equipping students with lifelong learning skills are hallmarks of the progressive educational environment taking shape at the Philadelphia School of the Future. This state-of-the-art public high school, the result of a unique collaboration between Partners in Learning and the School District of Philadelphia, aims to create a 21st-century learning atmosphere in which students develop their critical thinking, communication, problem solving, teamwork, and other skills that are crucial to succeeding in work and life.

Microsoft representatives, Philadelphia educators, and community members came together in 2003 to help define a vision, principles, and a process for creating this school. In addition to its strategic planning role, Microsoft has contributed staff time and expertise in areas such as business management practices, communication and collaboration techniques, technology integration, and professional and leadership development.

The result is a 750-student school built to maximize collaboration, creativity, and the demonstration of real-world skills. Students and teachers have extensive access to information technology and other digital tools that help support creative teaching methods and continuous, self-directed learning. Teachers often work together on lessons that extend a common theme across several subject areas and incorporate activities in the community to make learning more relevant. Recognizing that students absorb knowledge in different ways, the school supports adaptive instructional methods geared toward individual learning needs.

Microsoft and the school district are now sharing their experiences from this partnership with school leaders worldwide as a model for delivering more effective learning experiences that prepare students to excel in the 21st century.

Leadership

United States:

Fresh Ideas Foster More Effective Learning

Like their colleagues throughout the world, school administrators and teachers in Massachusetts' Falmouth Public Schools continually seek to strengthen their curriculum, professional development programs, communication, and other practices. The school district has drawn inspiration for these efforts from a Partners in Learning program called School Leader Development: Building 21st-Century Schools (SLD), which provides a framework for evaluating local educational issues, setting goals for improvement, and developing specific plans to achieve those objectives.

The SLD program uses video presentations, challenge questions, small-group discussions, and commentary from noted education experts as jumping-off points for participants to generate fresh ideas about how to foster more effective learning. Falmouth Public Schools invited parents, area business owners, local government officials, and representatives from the world-renowned scientific community in nearby Woods Hole to join in this process.

Encouraged by the conversations begun in the SLD workshops, Falmouth established a district-wide strategic planning committee and leadership teams at each school to help put the community's educational improvement concepts into action. Priorities include bringing a more global perspective and greater consistency to the learning environment, expanding students' access to information technology, teaming with scientists in Woods Hole to create hands-on learning projects, and offering more opportunities for district staff members to share ideas and develop their leadership skills.

"Our work with the SLD program has generated a tremendous amount of collaboration," says district Superintendent Dennis Richards. "It is helping us to make the connections between what we do in our schools—what we say that we believe in and what's most important—and how those things will actually help all kids to be successful."

Collaboration

Teacher forums and Web-based portals are encouraging teachers to share best practices.

Cambodia:

Creating and Empowering Communities of Teachers

In early 2007, 180 teachers from 18 Asia-Pacific countries gathered at Microsoft's annual Asia Pacific Innovative Teachers Conference in Siem Reap, Cambodia, to share ideas and explore new ways of collaborating. During a visit to the nearby ancient temples of Angkor Wat, teachers were challenged to develop a teaching module drawing on the history of the site to help students understand the impact of caste and class structure on societies.

"Mixing with other cultures and other teachers has been incredibly motivating," says Phil Lockhart, a teacher who traveled from the remote Aboriginal community of Oombulgurri in Western Australia. "I learned a lot from it. Other teachers from other cultures don't necessarily think the way I do, and my scheme of how things should go is not perhaps the only way that things can happen."

Lockhart and the other teachers were selected from among 22,000 educators across the region who submitted entries to national competitions sponsored by Microsoft to showcase best practices in the use of technology to enrich and enliven learning.

Several weeks later, 150 teachers representing 40 countries in Europe, the Middle East, and Africa gathered for a regional forum at UNESCO's Paris headquarters to share best practices, network, and explore new ways to improve teaching with technology. The series of regional forums culminates each year in an international conference called the Worldwide Innovative Teachers Forum.

These forums are part of the Partners in Learning Innovative Teachers Program, which also includes the Innovative Teachers Network (ITN), a fast-growing collection of Web-based portals where teachers in 52 countries can meet, connect, and share ideas and practices. Just as education systems vary widely around the world, ITNs in each country take localized approaches to building teacher communities.

Conclusion

Partners in Learning: Reflections on the First Four Years

Since Partners in Learning launched in 2003, we have seen some remarkable transformations in education systems of every size, in every part of the world. The credit for these successes goes to hundreds of dedicated and passionate teachers, school leaders, and education policymakers who have embraced the tools and resources offered through Partners in Learning. The results demonstrate the tremendous impact that a rich network of partnerships can have on one of society's most important institutions, as well as the transformative power of people who are willing to take risks and explore the unknown in order to address complex challenges.

There is still much more to be done. Few would disagree that education is a cornerstone of economic and social opportunity, yet education systems around the world still face serious challenges. Many countries are struggling just to provide the infrastructure and fundamentals—the classrooms, qualified teachers, curricula, and technology needed to meet existing or growing demands. At the same time, countries are being challenged to modernize and tap into the global economy in order to be competitive.

Technology is not the only answer, but it can help provide young people with necessary workplace skills and enable school systems to run more efficiently. Computers and software can also stimulate student interest and enable personalized learning.

But creating fundamental change in education requires more than technology. That's why Partners in Learning has taken a broader approach, supporting efforts to integrate technology effectively into teaching and learning and programs that help school leaders and education policymakers create an environment in which school systems can be more agile, responsive, and efficient. These initiatives require thinking about the entire “value chain” of education—from students all the way up to na-

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tional governments—and inviting and integrating the insights and expertise of hundreds of partners around the world.

Partners in Learning has built on important lessons that Microsoft learned over more than a decade of investments in education. In the early 1990s, Microsoft, like many other companies and organizations, focused on broadening access to technology—computers, software, and Internet connections. We now know that for technology to have a lasting impact on education, it must be a catalyst for change rather than an end in itself. It's important for students to acquire the basic computer skills that are increasingly essential for any job, but technology can also be a powerful enabler of new ways of learning that nurture creativity, flexibility, and teamwork and allow students to learn in their own style and at their own pace.

This approach empowers teachers to use technology to maximize their students' learning potential—supplementing basic skills with sound pedagogical guidance and an emphasis on collaboration, community, and innovative practices. It also provides school leaders with the tools, resources, and support they need to implement change and innovation throughout their systems.

In the years ahead, Partners in Learning will continue to support scalable, replicable, and sustainable projects that have the potential to help transform learning and ensure that children around the globe will have even greater access to a world of opportunities.

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