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YouthSpark and the Evolution of a Corporate Philanthropy Program

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YouthSpark and the Evolution of a Corporate Philanthropy Program

With a strong culture of giving instilled by Microsoft's cofounders, Bill Gates and Paul Allen, corporate citizenship and philanthropy have always been a part of our DNA. With the founders' involvement more than 30 years ago, Microsoft started an employee matching gifts program, which so far has raised more than \$1 billion.

Fast-forward to the start of the new millennium, when Microsoft was just 25 years old. We were already investing in a wide range of corporate citizenship projects around the world. Each project was making an impact, but the efforts were decentralized and not able to take full advantage of Microsoft's broad expertise, acumen, and resources.

To expand the effectiveness of these initiatives, we began exploring how to unite our efforts around a central strategy and audience and to align Microsoft's corporate giving programs more effectively around the company's core competencies. At the time, the international technology community was becoming increasingly aware that simply providing access to technology, or bridging the "digital divide," was not enough. Beyond learning to use computers and the Internet, people needed the knowledge to apply those skills in ways that were relevant to their lives and economic needs.

We were adamant then, and still are today, that technology in itself is not a means to an end but a tool. If we could create an approach for our corporate philanthropy that focused on teaching technology skills that people could apply to improve their own communities, we felt we could begin driving real and lasting

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change. Aligning our philanthropic efforts to reach more specific goals also would allow Microsoft to respond more effectively to local leaders' expectations and needs.

In 2003, Microsoft announced the first round of grants of a new global initiative, Microsoft Unlimited Potential (UP), which donated cash and software to 82 nonprofit organizations around the world. UP focused on providing people of all ages and abilities with free or low-cost access to technology skills training that enabled them to develop job-related technology skills, explore new careers, further their education, and become more connected in their community. Microsoft invested more than \$80 million in cash and software grants during the first 12 months of the program. Ultimately, UP donated more than \$400 million in cash and software to establish 70,000 community technology learning centers in at least 100 countries, working in partnership with more than 1,000 nonprofit organizations.

Over its decade of existence, the key to UP's strength has been its unified, strategic approach that has enabled people to succeed using technology. UP gave underserved rural and urban communities access to information technology (IT) for the first time. Where an Internet connection was available, communities leveraged this access for both economic and personal benefit. Many used the Internet to obtain market prices for their products or to sell their art and crafts outside their communities. Women were learning to use IT as an empowerment tool or to interact in new ways with their children, some of whom were learning to use computers and the Internet at school. Studies from the University of Washington detail how, in Europe, immigrant women were trained and empowered through the access to information the UP centers provided. In Asia, women, girls, and boys rescued from trafficking operations were able to train through our UP centers and then work from the safety of their homes, earning an income doing such things as designing business cards and letterheads for small companies. In Australia, the aboriginal community was able to preserve its traditions by linking elders to the younger generation through technology.¹ We saw that people in underserved communities around the globe were using IT to gain social and economic benefits in ways we never imagined. As we had hoped, access to technology and the Internet was opening up a whole new world of information and opportunity.

One key lesson from UP was that we could help people and communities even more effectively if we structured our work to align with their core business objectives and competencies. This understanding helped us become more effective at running programs and communicating our objectives and outcomes to communities, governments, schools, and other constituencies.

ADAPTING AND EVOLVING

By 2011, it was clear that the world had evolved. Mobile phones, laptops, and widespread Internet availability had rapidly changed the landscape of technology access, skills, needs, and workplace expectations. The technology ecosystem itself

was vastly different from what it had been at the start of UP. In 2000, Microsoft was focused on providing technology access and skills training to people outside the formal education system, who might otherwise have no access to it. At that point, the greatest concern was simply getting underserved populations on line. By 2011, the fundamental questions were entirely different: If access to technology is no longer the biggest issue, how can people be empowered to do something constructive with it? How can they be engaged to work with it?

The nature of jobs and employment in the 21st century also had evolved significantly. Information and communication-technology had become a central element across industries, sectors, and job categories. Indeed, today it can be difficult to find any job in any industry that does not require at least basic familiarity with and use of technology, and advanced skills are often required. Any kind of research in biomedicine, climatology, epidemiology, or other sciences is nearly impossible without some understanding of computer programming skills. Fields like animation, digital media, gaming, even the arts also are becoming more integrated with technology.

These tectonic shifts meant that Microsoft and UP had to evolve with the changing landscape, which created an opportunity for us to rethink our strategy and programs. To stay relevant and effective, we needed to determine how we could bring our expertise and technology most effectively to underserved communities, where the gaps are especially apparent and hard to overcome in a rapidly changing economic and social environment.

THE IMPACT OF THE GLOBAL LANDSCAPE

The economic downturn that started in 2008 also informed our perception of how to approach community-focused efforts. As the impact of the global crisis began to emerge, it became clear that one population around the globe was being shut out of economic opportunities more than any other: youth.

A study commissioned by Microsoft and released in March 2012 highlights the problem. The International Youth Foundation's report, "Opportunity for Action: Preparing Youth for 21st Century Livelihoods," paints a grim picture of a systemic worldwide challenge that has no single antidote: low-quality schooling, a skills mismatch, disengaged youth, and rural-urban divides are among the multiple contributing factors facing many countries. In Spain, for example, 42 percent of youth are unemployed,² approximately one-third of French youth had been unemployed for more than a year in 2010,³ and the U.S. Bureau of Labor Statistics estimated that less than one-half of U.S. youth ages 16 to 24 were employed during the summer of 2011. In the Middle East and North Africa, a mismatch between skills and the labor market has kept the youth unemployment rate the highest in the world for two decades.⁴

This report highlights how an issue that was traditionally seen as economic (i.e., providing technology access for underserved communities) could now be seen as a divide between those who have the access, skills, and opportunities to be

successful and those who do not—an opportunity divide that spans geographic, cultural, educational, and national boundaries. Many youth in developed nations are not necessarily unemployed because they lack training but because they are not equipped with the right skills for employment in today's economy. Some find that their skill level is too high for the available jobs, and others simply do not have the opportunity to pursue education or employment for a host of reasons. The problems are multiple and complex, and they vary by location.

These issues are as much a challenge for Microsoft as they are for any nation or local economy. We require an educated, skilled workforce that we can rely on today and for the future. In the coming years, Microsoft and its partner companies will need to hire hundreds of thousands of people who have a particular set of skills and education. If youth are not obtaining the education, skills, and work experience that match our needs, we will have a serious problem. The same is true if we do not have a consumer base that can purchase and use our products.

All these factors helped validate the shift Microsoft was making in its philanthropic programs, a new approach that would align with the priorities of governments and societies around the world, as well as our business priorities.

THE NEXT STEP: YOUTHSPARK

When identifying our programs that were the most successful and could be built on or learned from as we developed a new approach to our corporate citizenship efforts, we found that youth was a common thread. UP was providing access to technology for kids who might not otherwise have it. Our Partners in Learning program was working with schools and policymakers to help improve 21st-century skills in K-12 education. Our work with DigiGirlz was helping stimulate girls' interest in technology. The Microsoft Imagine Cup competition was providing a way for 18- to 22-year-olds to apply their knowledge and technology in practical ways to solve pressing social problems.

Focusing our new philanthropic approach and the new direction of our efforts for youth gave us an opportunity to create a unified, cross-company effort and narrative to weave complementary programs into a single framework of outcomes, impact, and storytelling. From the lessons learned through UP, we knew that an umbrella initiative would enable us to align all our work with core themes, messages, goals, and outcomes, thereby creating greater benefit for the communities we work in and for the company.

Microsoft YouthSpark, Microsoft's new initiative launched in September 2012, has a bold goal: to help create opportunity for 300 million young people around the world by 2015. YouthSpark was created to enhance our existing efforts to empower youth through technology and to augment emerging new opportunities with philanthropic programs and resources. YouthSpark is building connections across our nearly 20 related programs to create opportunities for youth regardless of skill level, using technology to focus on the three areas where we knew youth around

the world need the most support: employment, entrepreneurship, and additional education or training.⁵

While entrepreneurship has been a focus of our business groups through programs such as Microsoft BizSpark, we had not used entrepreneurship in our philanthropic efforts. However, UP showed us that in many countries youth will have to be not just job seekers but job creators. Thus, we designed YouthSpark to encompass entrepreneurship and entrepreneurial skills as important components of our work.

Through YouthSpark, we've built an approach that allows us to take a more active and direct role in driving positive outcomes. We are addressing the opportunity divide by working with partners who use Microsoft resources to empower youth through skills training and education, to help them envision and realize their future by getting into jobs, and to pursue additional education or training or start a business or social venture.

Three pillars support YouthSpark programs:

Empower. Youth are empowered through IT skills training, with a focus on helping them find jobs, pursue further training, or start their own businesses.

Imagine. YouthSpark helps youth imagine what their futures can be through programs such as Innovate for Good (see below) and the Imagine Cup.

Realize. Programs in this pillar help youth realize their future by providing access to funding through the Give for Youth micro-funding platform, by fostering entrepreneurship, and by providing employment through programs like Students to Business (see below).

Microsoft is making the largest investment in the first pillar, empower. In YouthSpark's first year, we made 90 cash grants to nonprofit partners that are working in more than 100 countries to train youth in the IT skills they need to find jobs, continue their education or training, or start their own business.

We have developed partnerships around the world that will give YouthSpark a broad reach and address the critical needs we have identified. All our partners have roots in their communities, and many receive additional funding from development agencies, local governments, and other corporations.

In China we are partnering with the China Foundation for Youth Entrepreneurship and Education to reach 80 million youth around the country and provide technology training through their 3,000 offices. Within the first three fiscal quarters of our work with the foundation, more than 68,000 youth had received training, as well as internships, microcredit loans, and additional voca-

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Figure 1. A map of Microsoft’s local impact on youth around the world

tional training. In Latin America, we joined the New Employment Opportunities partnership launched by the International Youth Foundation, the Inter-American Development Bank, and other corporate partners to help get one million youth into jobs. In the Middle East and Africa we are working with the Silatech Foundation to develop a set of training programs, curricula, and an online portal that provides not only important skills but also critical connections to employers. The program aims to reach two million youth. In Europe we are partnering with the European Youth Forum to help one million youth across the continent improve their civic education and citizenship skills through e-learning and active engagement in society.

In the United States, we partnered with select organizations—Boys & Girls Clubs of America (BGCA), Junior Achievement (JA), City Year, Year Up, and the Network for Teaching Entrepreneurship (NFTE)—to help young people find employment, continue their education or training, or start their own business. Our YouthSpark partnership with City Year has thus far trained more than 12,000 youth, and Year Up recently enrolled 773 students at Microsoft-supported sites; 92 percent remain in the program after completing two-thirds of phase one.

Nine months into our work with NFTE, its programs are providing entrepreneurship education to more than 4,000 youth. NFTE’s YouthSpark-supported programs are developing young people’s entrepreneurial mindset—attitudes, skills, and knowledge—which we believe will help them achieve economic well-being. JA’s partnership with Microsoft’s U.S. retail stores has resulted in more than 175 in-store activities, including our flagship job shadow program and follow-up activities, through which we have reached more than 4,400 youth. We currently are

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working with JA to infuse more technology learning opportunities into the organization and its activities.

Finally, we are aligning our YouthSpark support with our longtime partner BGCA's flagship Keystone teen leadership program, which enables club members to work cooperatively to discover solutions that will promote social change in their communities, all with an entrepreneurial mindset. This work and our technology investments in BGCA have affected millions of youth across the United States and on U.S. military bases abroad.

Each organization we work with through our grant program has a presence in communities where Microsoft offices are located, so we can use our human capital as well as our financial and technology resources to create real impact. We have observed that for any training program to be relevant and useful to local communities, it must be more than just an access point, especially where technology is concerned. We believe our programs must be a catalyst for change and economic opportunity and must enable individuals not only to learn but to be inspired and empowered. Therefore, in addition to providing financial and technology resources, we also provide content that can help our nonprofit partners, and the youth they serve, to use technology in the ways most relevant and beneficial to them. Through the YouthSpark Hub resources such as technology skills training curricula, tools that help assess job readiness, and entrepreneurship skills training curricula, we're helping many young people use technology as a tool, prepare for jobs, and work to build their own futures.

YouthSpark's second pillar, imagine, centers on exciting the imaginations of young people who have participated in our youth-focused programs, and on leading them to apply their skills and knowledge in a practical way. We created a new program, Microsoft Innovate for Good, that brings youth together to collaborate on innovative solutions for social issues. Our small but engaged group of members, through in-person events and a private online community, provides a variety of trainings, resources, and support (including mentorships with Microsoft employees) to help bring their ideas from concept to reality, with social innovation and technology as the core building blocks.

In the last year, Innovate for Good events reached more than 2,000 youth in 73 countries. Each event helped to engage Microsoft's senior leadership and employees directly with YouthSpark. In addition to bringing socially engaged youth together for a day of learning, collaboration, and inspiration, these events enable youth from diverse segments of society in their own countries and communities to develop projects jointly. In the Middle East, for example, young women wearing the *hijab* held their own in passionate discussions with male colleagues. These events help break down traditional barriers and lead to projects where multiple, sometimes conflicting, points of view are considered, often in places around the world where youth are challenging traditional barriers.

Through these events and the Innovate for Good online community, we have started to build a committed core of young people who discuss ideas and share their projects for social change. In response to requests from these youth, we cre-



Figure 2. Youth reached by YouthSpark, by program and by country

ated a micromentoring program that connects Microsoft employees to Innovate for Good members to provide feedback or assistance; 50 Microsoft employees have signed up so far. Our long-term goal is to help those in the Innovate for Good community develop viable projects and receive the training, mentoring, and resources they need to become successful, including connections to the relevant parts of Microsoft.

The goal of our third YouthSpark pillar, realize, is to help youth find employment, become entrepreneurs, or pursue further education or training. A key effort was to give youth and youth-serving organizations a crowd-funding platform, called Give for Youth, to help support programs that are either focused on youth to achieve the goals stated above, or were started by youth with tangible, practical ideas. Through Give for Youth, nonprofit organizations and young people have a place to raise money to connect with like-minded individuals or agencies that want to help them succeed. Give for Youth was launched in September 2012, and as of July 2013 it had raised more than \$1.59 million dollars from 3,200 donors, funded more than 670 projects, and affected over 30,000 youth. Through targeted matching campaigns, we're helping nonprofit organizations and the youth they serve find new ways to raise funds, support individual projects, and gain new donors to support their work. We are experimenting with ways to reach individual youth directly through this platform. One campaign alone promoted funding for five projects created by youth who had come through the Innovate for Good program. Another example is Domineisha, a young woman who shared her story on Give for Youth

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and raised more than 200 percent of the funds she needed to take a leave from work to further her education.

With our existing programs and these new areas of focus, we have been able to create an end-to-end effort that empowers young people through capacity-building and training, helps them imagine their future path, and then provides them a platform with which they can realize it. Today a young person could follow a path, for example, on which they participate in the Imagine Cup, pursue an interest in Web application development using Microsoft DreamSpark technology, and be hired through Students to Business, a program that connects students to internship and employment opportunities with our 600,000 global business partners.

Early indicators show that we're on the right track with YouthSpark. By joining these complementary programs, defining collective outcomes, and establishing a clear pathway for progress through the resources Microsoft has to offer, we have increased the cumulative impact of our citizenship programs.

We have built a multifaceted data-collection process that allows us to track the reach of each of our efforts. Our current data show that we are on track to reach 100 million youth in this fiscal year through YouthSpark, thus exceeding the original philanthropic outreach goals set when YouthSpark was launched (see figure 2). With this data, we can track the progress of each program in each region and country.

Since some of our YouthSpark programs and partnerships have been launched very recently, it is too early to report a significant impact, but we work closely with each partner to ensure that we are making progress along the way. Our local teams visit the projects, as do our corporate team and leaders, to track progress and to learn from our partners, the youth being served, and the beneficiaries. We also invite our partner organizations to collaborate with us at speaking events and other engagements; we invite their staff to conduct trainings at our offices; and in many places we bring our partners together annually to learn from one another.

Our experience with monitoring and evaluating UP has given us some insights into measuring the impact of YouthSpark.⁶ Some of the most insightful lessons are:

- Truly engage with your nonprofit partner. Create an environment of engagement and collaboration in which the partner is supported.
- Take a long-term view when evaluating impact, but have a trackable reporting mechanism.
- Partner with organizations that have a built-in mechanism for reporting and are themselves always learning.
- Make sure the reporting process is not onerous and not out of scope for the investment being made so you receive important, relevant information.

DATA MATTER, BUT DATA ALONE DO NOT DEFINE SUCCESS AND IMPACT

These issues bring us to a big question: How is success defined across a major organizational effort that spans continents, education levels, diverse cultures, and

Technology Education and Literacy in Schools: An Example of YouthSpark's Depth

For any corporate philanthropy program to succeed, it must have financial resources. To have a deep impact and bring the best of a company to bear on an issue, it must leverage the comprehensive set of resources the company has to offer. These might include products, people, a corporate voice or market position, specific expertise, and a host of other assets. In one YouthSpark program, Technology Education and Literacy in Schools (TEALS), employees bring expertise and acumen to help the company solve a specific challenge through a long-term, systemic approach. The challenge is this: of the 42,000 high schools in the United States, only 2,100 were certified to teach advanced placement (AP) computer science courses in 2011, and only 21,139 students took the AP exam.⁷ Ironically, given the growing importance of computer science, the subject accounted for only 0.6 percent of all AP tests taken last year, down from 1.6 percent of all tests in 2000.⁸

To address the significant shortage of qualified individuals to teach computer science in high school and the shortage of qualified computer scientists in the nation, Microsoft created TEALS. Employees from Microsoft and other companies go into classrooms, either in person or virtually, and teach introductory and AP computer science classes every school day for a full school year—a huge commitment of time for any individual and a significant investment by Microsoft. To date, volunteer TEALS teachers are working in 37 schools in eight states to get kids excited about a field they otherwise may not have thought of, simply because it was not offered to them.⁹

socioeconomic status? The obvious answer is measurement, to conduct studies and surveys that provide statistics to show movement and progress over time. In fall 2013, we will be sharing what we have learned and the progress YouthSpark has made during its inaugural year. The program's original goal was a lofty one: to reach 300 million youth worldwide by 2015. Last spring, just six months into the program, several encouraging signs indicated that we're on the right path.

The Innovate for Good online community and our partner, Toronto-based nonprofit TakingITGlobal, is experiencing a great deal of activity. Young members are spending an average of 7.5 minutes per visit in the youth online community.

Youth have raised funds for several social-change projects via Give for Youth, and they are refining these projects with support through Innovate for Good and Microsoft employees.

Youth from Innovate for Good are being invited to participate in the Social Innovation Summit, held each spring at the United Nations and each fall in Silicon Valley. They also are being profiled as YouthSpark Stars and getting inside access to Microsoft experts on technology and programs.

How does a company like Microsoft scale a program like this? Through partnerships with other companies and other funders. For the coming school year we have expanded the program to 65 schools and enlisted 250 volunteers, of whom 124 are from other companies. We are expanding remote teaching using virtual communication technology, such as Microsoft Lync and Skype, and looking at ways of using online teaching to further augment the classroom experience and reach more students and schools.

Furthermore, in May 2013, Washington State's governor, Jay Inslee, signed House Bill 1472, which allows AP computer science to count as a college math or science credit in Washington State high schools.¹⁰ We are particularly proud of this hometown legislation, as many of our employees donate their time through TEALS and the bill underscores the value of this work. This legislation was a victory not just for Microsoft but for the U.S. technology sector as a whole. More importantly, it was a victory for youth. Washington's new law is a big step toward solving the problem of insufficient qualified programmers and other technology specialists. In colleges and universities all across the country, AP computer science is not considered a science or math credit. The lack of incentive has led AP computer science to become the least-popular AP course in the nation.

The Washington State law is an example of how the seeds planted by a corporate philanthropy program can come to fruition in a way that solves a challenge for everyone. It is also a clear case of what can happen when a company or philanthropic organization brings real expertise, know-how, and creativity to bear on an issue.

Give for Youth, YouthSpark's crowdsourcing site, has raised \$1.2 million in the first nine months of the program and funded more than 700 projects.

The youth whose lives have been transformed through participation in these programs include:

Mary, a girl from Mombasa, Kenya, who was able to connect with a Microsoft mentor on Skype through the Global Give Back Circle. She's now at the American University of Dubai, where she serves as the first African and second female president of the school's student body. Mary recently was invited to speak with former president Clinton as part of the Clinton Global Initiative.

Jeremy, a high school student in Kentucky, who was not interested in school until he found a passion for computer science through TEALS. His teacher is a Microsoft employee who uses our teleconference technology to teach introductory computer science in Jeremy's classroom. Since discovering the subject, Jeremy is on the honor roll and plans to pursue software engineering in college.

Johnny, who was trained through the NFTE program in high school on Chicago's South Side. He went on to launch his own line of apparel while pursuing his college degree and maintaining a full-time job at a Chicago advertising firm.

Bishal, in Seattle, who has been part of the TEALS AP computer science program and attended the signing of House Bill 1472. He was admitted into Central Washington University and won a scholarship to enter the field of technology.

LESSONS WE HAVE LEARNED

The truth is, when Microsoft started these programs more than a decade ago, no one was sure where they would end up. The notion of access has changed greatly in that time, and few foresaw the ubiquity of technology and the power it would yield in 2013. By continuing to change in response to new knowledge and staying true to the company's aims, these programs have evolved and become more effective over the years. Here is the heart of what we've learned.

Connect to and leverage your company's core assets, beliefs, and competencies. To have an impact that is as relevant for your company as it is for the community, ensure that your corporate citizenship and community work link to the company's overall priorities and products. After all, any company can just give cash, but only those that invest both tangible and intangible assets will see lasting benefits for the communities they serve, and for their business, in the long term. Just as changing the life of an individual requires real engagement, achieving real change on a large scale requires more than just writing checks.

Bring your "A game." If you want your company and the communities you serve to see your work as an asset, you must bring your expertise, products and services, intellect, acumen, experience, and best people to whatever you do. And you must do so in a way that makes business sense, has measurable outcomes, and enables you to tell the story of your progress in a way that matters to the business, your community, and your key stakeholders.

All impact is local. It is crucial to partner with organizations that can implement programs locally. We have learned that, without local expertise, it is tough to create programs that are locally relevant, effective, and ultimately successful and scalable. This is why, through YouthSpark, we have partnered with local, regional, and global organizations that have deep community roots and credibility. As a partner and funder, we respect their program expertise, which is what makes the kinds of profound changes we all want to see. It is not something we can undertake on our own, nor do we believe we should.

Be critical and adaptable. Where Microsoft is today reflects the maturation of our programs, our growth in expertise, and the realization that our communities and our business need more from us. This kind of evolution is not possible without being self-critical and being comfortable letting go of things that do not make sense. Along the way we've tried new ideas, listened to feedback, seen shifts in our company and the technology industry, and been appropriately critical of ourselves. In doing so, we have shifted from being an active participant to being a driver of change. We did not get here by being a passive participant but by being actively engaged and significantly invested on multiple levels, and we're now seen as a committed and trusted partner.

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Having a broader impact is what we are trying to do through YouthSpark. UP reached 500 million people. Nearly 10 years into Partners in Learning, the program has reached 300 million and is still growing. Because of the lessons we've learned and our desire to drive change, we believe that, with our collective investment and commitment, we can help 300 million more youth around the world by 2015.

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1. More UW Studies are available at http://tascha.uw.edu/?s=microsoft&post_types=tascha_publications&x=0&y=0
 2. Organisation for Economic Co-operation and Development (OECD), *OECD Factbook 2011* (Employment and Labour Market Key Tables), Paris: OECD, as cited in International Youth, Foundation report "Opportunity for Action: Preparing Youth for 21st Century Livelihood," http://www.iyfnet.org/sites/default/files/Opportunity_for_Action.pdf
 3. *OECD Factbook 2011* (Employment and Labour Market Key Tables).
 4. International Labour Organization, *Global Employment Trends 2012*, Geneva: International Labour Organization, 2012.
 5. The Next Web, "Microsoft Announces YouthSpark, a Program to Help 300 Million Kids Get a Better Education and Start a Business." Available at <http://thenextweb.com/microsoft/2012/09/20/microsoft-announces-youthspark-program-help-300-million-kids-100-countries-find-new-opportunities/>.
 6. Microsoft has worked with the University of Washington Technology and Social Change Group to evaluate and learn from our work through Microsoft Unlimited Potential in communities around the world.
 7. According to the National Center for Education Statistics, there were 30,381 public schools and 11,941 private schools with secondary grades in the 2009-2010 school year. Available at http://nces.ed.gov/programs/digest/d11/tables/dt11_091.asp.
 8. The College Board's database of AP course audits. Available at <https://apcourseaudit.epiconline.org/ledger/search.php>.
 9. College Board, *AP Exam Grades: Summary Reports, 2011*. Available at http://www.collegeboard.com/student/testing/ap/exgrd_sum/2011.html; "Molding the Next Generation of Computer Scientists," CNN. Available at <http://www.cnn.com/2013/05/14/tech/innovation/computer-science-teals>; "Gov. Inslee to Sign Bill That Counts Computer Science for High School Math, Science Credit," Geekwire. Available at <http://www.geekwire.com/2013/gov-inslee-signs-bill-computer-science/>.
 10. Nick Wingfield, "Fostering Tech Talent in Schools," *New York Times*, September 30, 2012, available at <http://www.nytimes.com/2012/10/01/technology/microsoft-sends-engineers-to-schools-to-encourage-the-next-generation.html?pagewanted=all&r=0>.