

The worldwide technology competition, which this year includes nearly 100,000 students from 111 countries, is one way Microsoft inspires young people to apply their imagination, passion, and creativity to technology innovations that can create a better world.



Quick Take

What: The world's premier student technology competition, in which teams and individuals submit their projects online or in person for a chance to compete at the global finals—like the Olympics of technology—held in a different country each year.

Why: To inspire young people to conceive and build innovative technology solutions to real-world challenges.

Who: More than 100,000 university and high school students from 111 countries are registered for the 2007 Imagine Cup.

How: Teams and individuals can enter nine categories that include software design, embedded development, Web development, short film, photography, IT, algorithms, and a programming battle called Project Hoshimi.

Where: The worldwide finals of the 2007 Imagine Cup will take place in Seoul, South Korea, in August.

More info:

<http://www.imaginecup.com>

Local software economy case study:

Imagine Cup Inspires Young Technologists to Push Boundaries of Software Innovation

Encouraging young developers to visualize a better world enabled by technology and then bring that vision to life are core goals of the Imagine Cup, the world's largest student technology showcase. Sponsored by Microsoft, the Imagine Cup invites students to apply their technical and creative talents toward solving a different social challenge every year.

For members of the Brazilian team that competed in the finals of the 2006 Imagine Cup, which focused on global health-related issues, it also motivated them to help others overcome the limits of their eyesight.

Team Trivial, comprising three students from the Universidade Federal de Pernambuco, won second place in the Software Design category for creating a navigation system called Virtual Eye that assists visually impaired people. Virtual Eye combines specially designed wristbands, wireless Internet technology, and mapping software to help guide users in unfamiliar environments. The wristbands—one on each wrist—communicate with the Virtual Eye software and maps loaded onto a mobile computing device, such as a Microsoft® Pocket PC or Smartphone. When the right wristband vibrates, for example, that tells the person to turn right.

In the process, Ivan Cardim Cordeiro and his teammates learned invaluable lessons about stretching the boundaries of what others believe to be possible.

“Although we started out just doing this project for the Imagine Cup competition, we emerged from it feeling as though we were doing something that actually mattered,” Cardim says of Virtual Eye, which

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was partly inspired by concern about his grandfather's failing eyesight. Team Trivial members have continued improving Virtual Eye with the help of several local organizations in Brazil that serve visually impaired clients, and they hope to make it publicly available soon. "We couldn't have gotten this experience anywhere else," he says.

Competition attracts elite young developers

Now in its fifth year, the Imagine Cup technology competition invites students worldwide to develop effective solutions to real-life challenges. With its theme of, "Imagine a world where technology enables a better education for all," the 2007 Imagine Cup has attracted more than 100,000 people from 111 countries. This year's competition has expanded to nine technology categories: software design, embedded development, Web development, short film, photography, IT, interface design, algorithms, and a programming battle called Project Hoshimi. The top contestants will earn a trip to the worldwide finals, Aug. 5-11 in Seoul, South Korea.

More than 68,000 high school and university students entered the 2006 Imagine Cup with projects that addressed the 2006 competition's overarching theme, "Imagine a world where technology enables us to live healthier lives." The worldwide finals in Delhi, India, included 181 students from 42 countries competing for cash prizes of up to \$25,000. First place in the Software Design category went to Team Even .ctor (technology-industry shorthand for "constructor") of Italy, which created a technology called Hello World that provides physicians with access to important medical information that may have gone unreported by the patient. Hello World employs mobile devices, Microsoft SQL Server™ 2005, Microsoft Windows® Communication Foundation, Microsoft Windows Presentation Foundation, and other technologies to convey this medical data transparently and securely.

As part of Microsoft's Local Software Economy Initiative—a global effort focused on accelerating innovation, entrepreneurship, and competitiveness in local communities—the Imagine Cup also seeks to give participants a sense of the possibilities that exist in the IT industry to help improve society.

"These students represent the next generation of innovators who will help lead the technology field in delivering bold new solutions to some of life's toughest challenges," says Sanjay Parthasarathy, corporate vice president of the Microsoft Developer and Platform Evangelism Group. "We continue to be astounded by the creativity, resourcefulness, and sheer enthusiasm that they bring to the Imagine Cup experience."

Software projects yield valuable cultural lessons

For all of the worldwide finalists, getting to know each other and compar-

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—Sanjay Parthasarathy,
corporate vice president, Microsoft Developer and Platform Evangelism

ing projects—between visits to the Taj Mahal and other cultural sites in India—was a reward in itself.

“One very positive aspect of Imagine Cup is the exchange of experiences with other students,” says Carlos Monteiro Rodrigues, another member of Team Trivial along with Madson Menezes Costa. “Even though we were in a competition, the bonding between teams was fantastic. We learned so much from looking at each other’s projects.”

Competing in Imagine Cup has given many students their first opportunity to work in depth with the latest Microsoft technologies, such as Microsoft .NET XML Web Services and Microsoft Visual Studio® programming tools. The competition also introduces them to some of the company’s other academic support programs. These include MSDN® Academic Alliance, which provides access to Microsoft developer tools, platforms, and servers for instructional and research purposes; Microsoft Student Partners, a global outreach effort on university campuses worldwide; and Academic Days, which are conferences sponsored by Microsoft that bring together faculty to discuss current topics in computer science teaching and research.

“Our larger mission in working closely with academia is to empower students from diverse cultures, economic backgrounds and educational institutions to achieve their personal and professional goals,” Parthasarathy says. “We are committed to supporting diverse outlets for students to pursue their technological and creative interests beyond the classroom.”

Transforming ideas into business reality at Innovation Accelerator

For some Imagine Cup participants, the worldwide finals yielded further opportunities to develop their project ideas. The top six Software Design teams were invited to attend the 2007 Imagine Cup Innovation Accelerator, a two-week program held in January at the Microsoft Innovation Centre near London. Now in its second year, the Innovation Accelerator guides Imagine Cup software design champions into the next stage of developing their innovative ideas as a business. A joint project of Microsoft and BT, the Imagine Cup Innovation Accelerator provides technical support and business guidance to help teams create the must-have technology and communications applications of the future. The Innovation Accelerator program gave these 21 university students the opportunity to work closely with technology experts and business professionals from Microsoft, BT, other leading IT companies, and top universities on strategies for transforming their software concepts into working, marketable products.

Workshops included in-depth training on the Microsoft and BT technology platforms as well as coaching on how to run a start-up business. While participants could potentially be offered the chance to continue working with BT and Microsoft to develop their ideas, the students retain all intellectual

The top Software Design teams are invited to participate in Microsoft Imagine Cup Innovation Accelerator, a two-week program that guides them toward the next stage of developing their innovative ideas into a business.

property rights and control over what they have created.

“The Innovation Accelerator was a terrific opportunity for us to start forming a network of contacts in the IT industry,” says Sven Stegelmeier, a member of the German team. One of his favorite experiences was developing a business plan for their project, presenting the plan to a roomful of venture capitalist representatives, and listening to their feedback.

Called Trailblazers, the German students’ project is a navigation system for people with disabilities. The aim is to help wheelchair users and other people with physical impairments to locate barrier-free travel routes. Designed for use on a hand-held computing device such as a PDA or Smartphone, the Trailblazers software employs global positioning satellite system technology and Web-based mapping programs like Microsoft Virtual Earth™ to display the recommended routes. People also can chart their own local routes using Trailblazers together with a motion detector and feed the information, including photos of major obstacles or other notable details, into a central server.

This ability to expand and update Trailblazers at a community level will be one of the pivotal success factors behind the project, Stegelmeier and his teammates learned during the Innovation Accelerator program. “The experts advised us to hurry up and build a community around our technology because it is a learning system that depends on other people to collect specialized information for it,” he says.

Upon graduating from Hamburg University of Applied Sciences in spring 2007, the team—which also includes Mark Thomé, Piotr Wendt and Martin Stein—plans to complete the programming work on Trailblazers and publicly release the software. Had they not become involved in Imagine Cup, Stegelmeier says, he and his teammates most likely would have sought jobs with established IT companies rather than pursue their start-up ambitions.

“In that respect, Imagine Cup has completely changed our lives,” he says. “It gave us a more global point of view about software development and the confidence to try to turn our idea into a business.”

Gaining critical skills to kick-start a career

For the Norwegian team—Team NTNU—which placed third in Software Design at the Imagine Cup 2006, the experience has proved similarly valuable in helping them prepare for technology careers. Team NTNU developed a software application called Medi-Watch that is designed to integrate data from various health monitoring devices, such as a patient’s heart monitor and glucose meter, and transmit the information through mobile devices to health-care providers and family members. At the close of Innovation Accelerator, team members Goran Hansen, Hans Olav Norheim and Jonas

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Folleso received an award for writing the best business plan.

Even so, the students currently plan to put development of Medi-Watch on hold for now. “We have all either started jobs or been considering offers,” says Jan-Kristian Markiewicz, a member of Team NTNU through Imagine Cup. Markiewicz, who also competed in Imagine Cup 2004, missed the most recent Innovation Accelerator event because he had already been hired by Microsoft as a program manager for Tablet PC on the Windows Core User Experience team.

“When I applied for an internship at Microsoft in the summer of 2005, it helped a lot for me to be able to talk about my experiences at Imagine Cup 2004,” he recalls. “I had already learned a lot about the dynamics of working on a team and how to solve tough problems, which was a big plus during my interviews.”

Markiewicz adds that he is still applying lessons and skills he acquired through the competition in his professional career.

“You learn so much from this type of project because you have to do it all: come up with an idea, design it, and present it to other people in a compelling way,” he says. “A lot of that has turned out to be more valuable than what I learned in school.”

Inspiring the next generation of young technologists

For the 2007 Imagine Cup, which will culminate at the worldwide finals in Seoul, South Korea, in August, Microsoft is inviting young technologists and other creative thinkers to explore ways of improving education through technology. High school and college students who are at least 16 years old can choose among nine competitions under the main categories of Technology Solutions, Skills Challenges, and Digital Arts. More details are at <http://www.imaginecup.com>.

With all the learning opportunities and new experiences that accompany this program, it really is possible for everyone to come home from Imagine Cup a winner.

“This was something that we could not have done in any other environment in our area of Brazil,” says Team Trivial’s Rodrigues. He adds that their success on a worldwide scale can be a positive example to other local technology students and budding entrepreneurs.

“When people look at what we’ve accomplished, they see what is possible,” Rodrigues says. “We are not geniuses, but we’ve learned through Imagine Cup how to recognize the potential of an idea and go through the steps to make it a reality.”