



Microsoft<sup>\*</sup>

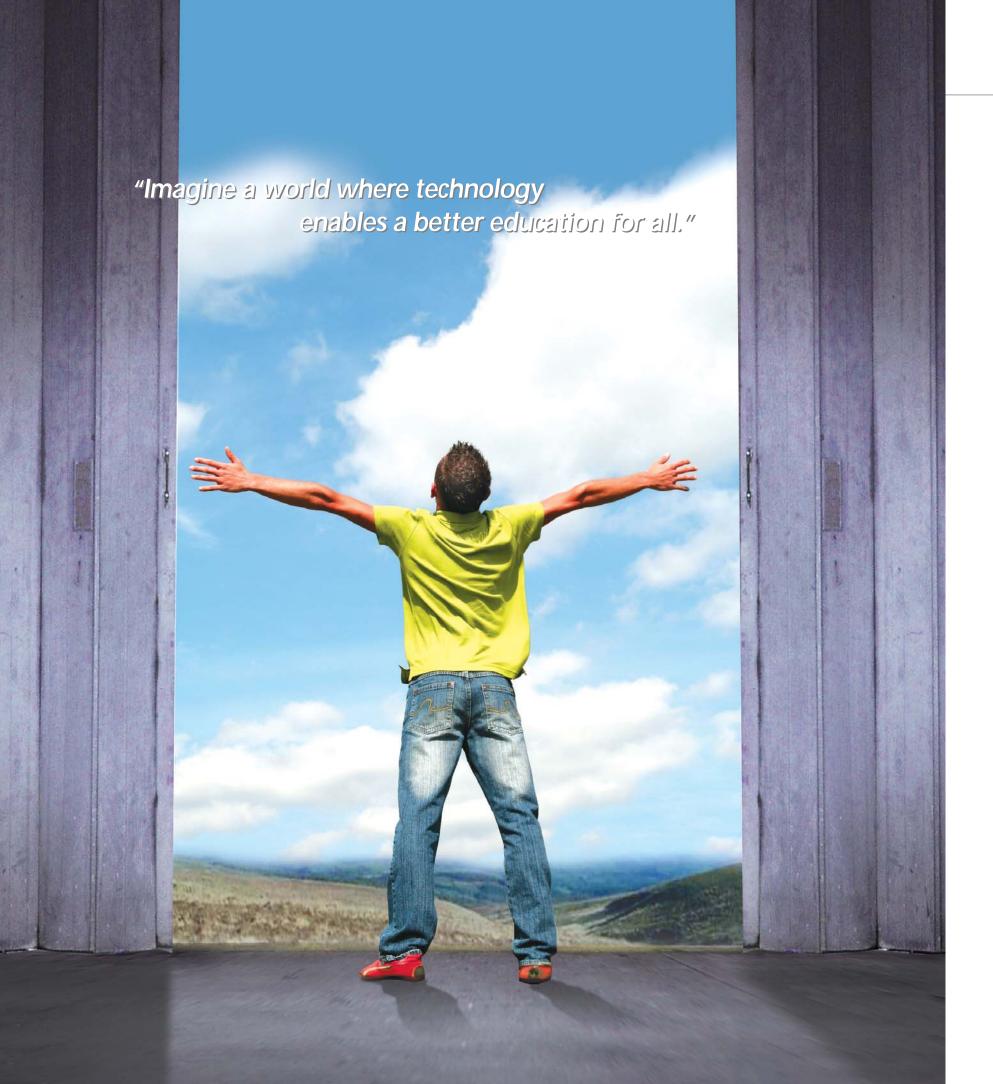




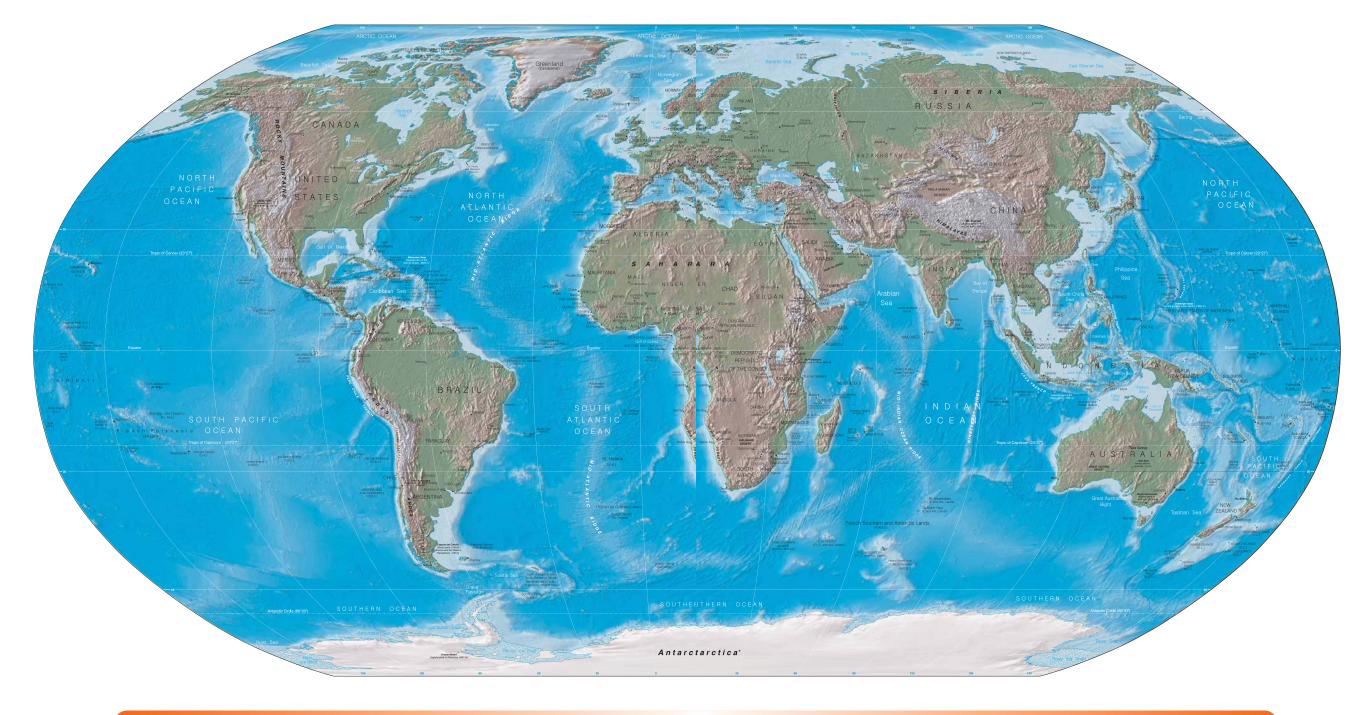








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Participating Countries / Regions

| Algeria                | Ecuador       | Japan       | Saudi Arabia         |
|------------------------|---------------|-------------|----------------------|
| Argentina              | Egypt         | Korea       | Serbia               |
| Australia              | Estonia       | Malaysia    | Singapore            |
| Austria                | Finland       | Malta       | Slovakia             |
| Belgium                | France        | Mexico      | South Africa         |
| Bosnia and Herzegovina | Germany       | Netherlands | Spain                |
| Brazil                 | Greece        | New Zealand | Sri Lanka            |
| Bulgaria               | Hong Kong SAR | Norway      | Taiwan               |
| Canada                 | Hungary       | Pakistan    | Thailand             |
| China                  | India         | Philippines | Turkey               |
| Costa Rica             | Indonesia     | Poland      | Ukraine              |
| Croatia                | Ireland       | Portugal    | United Arab Emirates |
| Czech Republic         | ltaly         | Romania     | United Kingdom       |
| Denmark                | Jamaica       | Russia      | United States        |

# Education Message from the South Korean Minister of

# Message from the South Korean Minister of Education

I extend a warm welcome to all young people from around the world who have gathered here in the Republic of Korea, a powerhouse of information technology, to participate in the Imagine Cup 2007 world finals.

It gives me great pleasure to host this year's Imagine Cup competition, where young promising students from many countries will match their creative IT knowledge and skills.

Dear students from around the world!

In addition to the competition, I hope you will be able to build good friendships during your stay, and also have an opportunity to experience how Korea has been spurring developments in the IT field.

The theme of this year's competition is "Imagine a world where technology enables a better education for all." As the theme suggests, today education is no longer a mere personal or national interest. Education is now an issue of global dimensions. It is the key that will direct the future of humankind, not to mention the enhancement of human rights and social welfare. This year's Imagine Cup theme thus provides a valuable lesson on the significance of education, not only for Koreans but also for many people across the globe.

With growing recognition of this importance, many nations have been endeavoring to address educational challenges and search for effective solutions. The rapid development of IT in recent years suggests an innovative approach in this regard. I hope that at this year's Imagine Cup, you will be able to envision for yourself how information technology may bring remarkable changes to education and to people around the world.

#### Dear participants!

Have belief in the fact that your IT knowledge and skills will lead the world through great developments. Take pride in your ability, as your software skills will contribute considerably to creating prosperity for mankind and advancing education. Release your imagination to the fullest throughout the competition, as you have endless potentials to pave new ways.

During the competition period, I also urge you to experience Korea's rich tradition and culture, and to meet many Koreans of your age. I extend my warmest words of encouragement, and hope that you will be able to bring back with you many valuable experiences, good friendships, and fond memories of the Imagine Cup. Thank you.

Vim Chin II

Deputy Prime Minister and Minister of Education & Human Resources Development

Republic of Korea



## Message from the Mayor of Seoul

Welcome. I am the mayor of Seoul, Oh Se-hoon.

I warmly welcome the finalist competitors from all over the world to Seoul, South Korea on the occasion of Imagine Cup 2007. I am honored to meet the young people who will be leading our future through advanced digital technology.

Albert Einstein said, "Imagination is more important than knowledge." Imagination is an essential factor for a creative and a successful life. I therefore encourage you to continue to commit yourselves to working with the utmost creativity and imagination.

In Imagine Cup 2007, the competitors are pushing the frontier of digital technology and testing their imaginations. The mission of the Imagine Cup resembles the vision of Seoul. Our 600 years of history coexist harmoniously with cutting-edge information technology. This has enabled us to achieve creative transformations that benefit all of Seoul's citizens. In particular, since the theme of this year's competition is education, I look forward to seeing various technologies coupled with unlimited imagination that will open a brighter future for the whole of humankind.

During the whole competition, I hope you will share friendships with friends from all over the world, and will demonstrate your fullest potential and skills to the best of your ability. On the 8th of August, the "Day of Seoul," I hope you enjoy experiencing our South Korean traditions and cultures and feel the delights and beauty of Korea.

Best regards,

Oh Se-hoon August, 2007 Mayor of Seoul



Message from UNESCO Edu

United Nations Educational, Scientific and Cultural Organization

The United Nations Educational, Scientific and Cultural Organisation (UNESCO) is the UN agency responsible for the promotion of international cooperation in the fields of education, science, culture and communication. UNESCO functions as a laboratory of ideas and standard setter to forge universal agreements on emerging ethical issues, and also serves as a clearinghouse for the dissemination and sharing of information and knowledge, while helping member states to build their human and institutional capacities.

Contributing to partnerships for development is a core part of corporate citizenship and an integral part of conducting responsible business. In November 2004, Koichiro Matsuura, Director General of UNESCO, and Bill Gates signed a global cooperation agreement on behalf of UNESCO and Microsoft.

The partnership focuses on assessing how information and communications technologies (ICTs) can be used positively to reduce poverty and seeks to develop joint programmes to address the digital divide and enrich educational curricula. The partnership with UNESCO is executed in collaboration with other educational and private partners in support of the common goal of promoting socio-economic development around the world. Our joint programs focus on three of UNESCO's four core pillars: education, culture and communication, and information.

UNESCO is pleased to announce its support for the Microsoft Imagine Cup, the world's premier student technology competition. For UNESCO, with its unique mandate to promote international cooperation in the fields of education, science, culture and communication, the Imagine Cup provides a creative forum that encourages young people to apply their imagination to technology. This year, students from around the world have been challenged to imagine a world where technology enables a better education for all. UNESCO will join the judging panel during the Imagine Cup 2007 Worldwide Finals in Seoul, South Korea, when a record number of teams compete for this year's Imagine Cup.

Abdul Waheed Khan Assistant Director-General for Communication and Information UNESCO

**Message from UNESCO** 



## Message from the Imagine Cup Competition Manager



When I attended my first Imagine Cup World Finals in Barcelona, Spain in 2003 I witnessed the marvels produced by technology-empowered young minds. It was as if nothing could stop those young teams and their creativity. Back then, I dreamed of taking an active role in this wonderful initiative and bringing it to new heights.

This has been my second year driving the Imagine Cup and I could not be happier with the outcome. More than 100,000 students from every corner of the world registered to compete this year, and the quality of the competitors and their entries has reached amazing levels. Furthermore as the Imagine Cup has grown, it has become more relevant to students and the technology industry. Each year, the Imagine Cup receives worldwide attention from academia, industry, governments, and the media.

Organizing the largest student competition in the world takes a lot of hard work. But the magic of the Imagine Cup happens only when people put their hearts in it. I would like to thank everyone who-year after year-makes the Imagine Cup possible with their hard work and their passion.

Speaking of hard work and passion, I could not find a better person than Rogerio Panigassi to drive the Imagine Cup moving forward. I am sure the Imagine Cup will greatly benefit from his experience and dedication.

I would like to congratulate all the finalists for their achievement. We are in Seoul to celebrate your talent and courage to step up to the big challenge of making a better education available to all through technology.

Good luck to you all!

Emanuele Ognissanti

Imagine Cup 2007 Competition Manager



## Message from Rogerio Panigassi

Hello,

I am very happy and excited with my new role. I can say that I have the best job of my life!

The Imagine Cup is a fun combination of essential elements like learning, friendship, passion, energy, work, admiration and respect.

Its outcomes vary from the great new ideas for resolving real world problems to augmented career opportunities. They all make a big difference to the society we live in and consequently to our own life! Sincerely,

Rogerio Panigassi



## Message from Joe Wilson

Welcome to Korea! Each year I stand in awe of what our finalists have already achieved and I've been eagerly awaiting the chance to meet you in Seoul. There are a few observations I'd like to make based on the work I've already seen in Imagine Cup 2007.

You are a powerful group of students. As you arrive in Seoul, please look around you and meet the other students who have worked so hard to be here. Take just a minute and ask yourself this question: how much of the world is represented here today? You will find that you are now amongst a very elite group of the world's top minds in technology. Don't miss the chance to exchange e-mails, learn about each other's cultures, understand your fellow finalists' stories, and be willing to share your own.

You represent the world as it is today and as it will soon become. It will be your ideas, your enthusiasm, and your energy that will create great change in the direction of technology as well as social change. Participating in the Imagine Cup means you care about creating technology but you also care about the cause that you are spending so much time working on. This is a noble pursuit and lifts your purpose already.

You are leaders. Achieving this level of accomplishment already thrusts you into the spotlight and your ideas and decisions will inspire others to chase their dreams. Don't shy away from this fact, embrace it, be a light that others can follow and make sure that you really do something with the success that you already have. Be willing to inspire the next generation of young minds to do great things and scale heights that you have already climbed.

You have already won. Of course it doesn't seem like it as you have the final rounds to go through, but each of you represents winning in some form. You may have won your local finals, you may be the top ranked competitor online. Each of you has already achieved what over 99,500 students this year did not, you have made it to the Worldwide Finals.

You will change the world. We have no doubt of this fact. You have the power, the inspiration, the leadership, and the intelligence to do ANYTHING that you want to and we are already amazed by all of you. However, this is just a step and you can take this accomplishment as far as you like... even far enough to change the world.

Please introduce yourself when we meet in Seoul, it's you that makes this all worthwhile and I don't want to miss meeting every single person that is here.

Joe Wilson Director of Academic Initiatives Microsoft Corporation



## Message from Sanjay Parthasarathy

Welcome Imagine Cup 2007 World Finalists! It is a great honor for Microsoft to host you here in Seoul, South Korea, for the Worldwide Finals of Imagine Cup 2007.

I hope that you are ready to compete for the title of World Champion in your chosen invitational.

The Imagine Cup demonstrates Microsoft's continued commitment to inspire the next generation of technology leaders to apply their imagination, passion, and creativity to solving real world problems and having a lasting impact on the world.

The mission of the Imagine Cup is to make the world a better place using the power of software. In every category of the Imagine Cup, you have the opportunity to transform lives for the better through technology.

I have already had the chance to review some of your work and it has been inspiring to see how you are using your creativity and knowledge to change the world. Applications range from making natural history instruction more accessible through a multimedia guide to the zoo, to improving children's problem solving skills by teaching simple programming concepts. One team's application translates speech or text into Braille, enabling visual and hearing impaired students to participate in class without the help of an interpreter. An embedded system provides early diagnosis of dyslexia, enabling teleconsultations between doctors and researchers.

The competition will be tough. By reaching the finals of the world's premier student technology competition, you have already shown yourself to be one of the world's most gifted technology students.

To me, you are all already winners and I congratulate you on your remarkable achievements. Best of luck in the Imagine Cup 2007 worldwide finals.

Sanjay Parthasarathy Corporate Vice President,

Developer & Platform Evangelism Group

Microsoft Corporation





## Message from S. Somasegar

The Imagine Cup has come a long way. About 1000 students from 25 countries/regions participated in the first Imagine Cup in 2003. And this year, over 100,000 students from more than 100 countries around the world competed in the Imagine Cup. We are excited to be hosting the 5th Imagine Cup worldwide finals in South Korea, a country with a rich history and culture, a vibrant economy, and a tradition of innovation. It's truly a privilege to recognize the talents of the world's brightest young students with a passion for using technology and software to solve real-world problems in the field of education. These students have developed a vibrant and healthy community built on mutual respect and healthy competition over the past 12 months.

Now in its fifth year, the Imagine Cup continues to challenge students around the globe to imagine a better world empowered by technology and created by their talent and innovation. In 2007, we are challenging the most talented students from all over the world to bring their ideas to life in a multifaceted competition that spans nine categories from software design and short film to embedded development and interface design.

The Imagine Cup continues to expand, adding more countries each year and a more diverse set of competitions. The finalists in South Korea represent the best and brightest from all over the world and are here for a weeklong final competition that will enable them to experience the world outside of their home countries/regions and interact with their fellow students from all over the globe.

The Imagine Cup is about more than just creating software and gadgets; it's about helping our young leaders to focus their dreams, ideas and creative energy into projects that benefit the society of tomorrow. This year we invite students to "Imagine a world where technology enables a better education for all." This theme is increasingly important in our world. As technology continues to accelerate, economic opportunities are expanding limited only by our access to the tools that knowledge can empower us to make our dreams a reality. Computer science is central to driving innovation and allowing local economies to thrive on a global stage. Our finalists' creativity speaks volumes about the promise of technology to advance the way we think, work and communicate. Education of the sciences will continue to have a critical impact on the economic development of their countries and the U.S.

I would like to thank the city of Seoul, South Korea for hosting this event. They have been extraordinary hosts, providing us with unmatched support and hospitality. Finally, I look forward to experiencing the creativity and brilliance of our group of worldwide finalists. I am excited to see their passion for innovation, their passion for technology, and their passion for making a difference in peoples' lives. Our finalists represent the next generation of worldwide business leaders and technology innovators. Their work will inspire us all to see how technology can make a lasting change for the better in how we think, work, and live. Please join me in welcoming the global student finalists of Imagine Cup 2007, and in wishing them the very best in all of their future endeavors.

Sincerely

S. Somasegar

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Corporate Vice President, Developer Division

Microsoft Corporation

## Message from Imagine Cup Team

Welcome to Seoul and the 2007 Imagine Cup Worldwide Finals. Just like you, we've been preparing for this moment all year and we are delighted that we will finally have the chance to meet you in person. We've gotten to know you throughout the year by talking to you in the forums, reading your finalist Web pages and questionnaires, hearing about your local software design finals from your regional Microsoft teams, and reviewing your test results and submissions in earlier rounds. We can't wait to finally meet you face-to-face!

Each one of you richly deserves to be here. Each of you has a unique story to tell of your journey here. Each of you has the capacity to make a unique and wonderful contribution to the world after the finals. We are inspired by your idealism, your dedication, imagination, and the commitment that you have shown to making the world a better place.

We hope that you take the time to introduce yourselves to us in Seoul. And we hope that as you focus on competing and giving your best in the next few days, you also take the time to get to know your fellow finalists, to enjoy the beautiful city of Seoul, to share ideas, exchange e-mails and phone numbers, and to forge lasting friendships.

The Microsoft Events Team, the Microsoft Korea team, and the team at Microsoft corporate headquarters in Redmond have been working together to create a unforgettable experience for you and are looking forward to spending the week with all of you in Seoul!

Good luck!



Imagine Cup Corporate Team (left to right: Bruce Curling, Emanuele Ognissanti, Jennifer Perret, Lisa Keating, Leandro Doeyo, Scott Sweeney)



Microsoft Korea Team

(left to right: Byung Yun Lee, Hwy Chol Ahn, Jong Hoon Kim, Dae Woo Kim, Sung Woo Cho, Reagan Hwang, Mi Young Lim, Sung Jae Kang, Hyun Seok Shin, Sang Yong Yoo, Hye Rahn Joh, Joong Suk Park, Sung Woo Cho, Sung Hak Hong, Kyoung Yun Kim, Jeung Min Son, Jae Ho Choi, Seon Young Hwang, Jin Ho Seo, Good Hyun Kim, Mi Young Hong, Hyeon Choon Jang, Nam Hee Park, Jung Hee Si, Seung Joo Baek, Sung Yoon Jung)





Microsoft Event Team

Mary Corrales-Diaz, Event Producer (left)
Lisa Harper, Event Manager (right)









As the world's premier student technology competition, the Imagine Cup is one way Microsoft Corp. is encouraging young people to apply their imagination, their passion and their creativity to technology innovations that can make a difference in the world-today. Now in its fifth year, the Imagine Cup has grown to be a truly global competition focused on finding solutions to real-world issues. More than 100,000 students from over 100 countries entered the 2007 competition. The theme of Imagine Cup 2007 is, "Imagine a world where technology enables a better education for all."

The Imagine Cup competition continues to expand. More than 100,000 students from over 100 countries have entered the 2007 competition, up from 68,000 students from 100 countries who participated in 2006.

In 2007, three new invitationals were launched: Embedded Development, Web Development and Photography. Formerly called the Windows Embedded Student Challenge, the Embedded Development Invitational offers students the opportunity to unlock their creative genius and to develop technology solutions that will help address real-world challenges. This competition challenges students to go beyond the desktop and use their creativity to build a complete hardware and software solution that will have an impact on our everyday lives. Web Development is designed to engage students who are passionate about using use the Web to create innovative educational sites for their peers using ASP.NET and related technologies. And in the Photography invitational, students are challenged to communicate a story about education using only photos as the communication medium. These competitions join six other stellar competitions from 2006: Software Design, Algorithm, IT, Project Hoshimi, Short Film, and Interface Design.

The Imagine Cup began in 2003 and has traveled the world westward from Barcelona, Spain to Sao Paolo Brazil, to Yokohama Japan, to New Delhi, India, and finally to Seoul, South Korea. The "cup" itself, a trophy first awarded in 2003 when Software Design was the only category, has spent tie with the Software Design champions in the United States (2003-2004), France (2004-2005), Russia (2005-2006), and Italy (2006-present.) This year the cup will travel from Italy to Seoul and be awarded to the winning Software Design team on August 10.

## **History of the Imagine Cup**



#### 2003- Barcelona, Spain

#### heme

Link between people, information, systems, and devices, using Web services and .NET as the springboard.

#### Worldwide competitors:

- 1,000 students from 25 countries
- 15 finalist teams



#### 2004- Sao Paulo, Brazil

#### Them

Imagine a world where smart technology makes everyday life easier. Worldwide Competitors:

- 10,000 students from 90 Countries
- 50 finalist teams



#### 2005- Yokohama, Japan

#### Theme:

Imagine a world where technology dissolves the boundaries between us. **Worldwide Competitors**:

- 30,000 registered, 17,000 students competed from 97 countries
- 86 finalist teams



#### 2006- Delhi, India

#### Theme

Imagine a world where technology enables us to live healthier lives. **Worldwide Competitors:** 

- 68,000 registered (24,000 competed) from 100 countries
- 76 finalist teams

# Education

Nelson Mandela once said, "Education is the most powerful weapon which you can use to change the world."

Educating today's generation for a global knowledge-based economy becomes more complicated every day. Access to a high quality education can equip students with the tools they need to become successful adults.

Yet too many children around the world are unprepared to meet the world as educated adults, whether because of their economic circumstances, physical or mental handicaps, or lack of access to high quality schools. And the larger the gaps in the quality of the education they receive as children and teenagers, the harder it is for them to catch up-leading to an enormous and unnecessary loss of human potential.

All of our finalists have demonstrated their commitment to education through their participation in high quality university programs around the world. They are all shining examples of how education can open doors and opportunities. Education alone isn't enough, but it can open doors. When coupled with creativity, and the ability and desire to master new concepts, education can equip us all to live more creative, fulfilled lives, as citizens and as human beings. It also can help us bridge the differences between cultures by giving us a common language and a respect for each others' differences and strengths.

The theme of Imagine Cup 2007, "Imagine a world where technology enables a better education for all," is a challenge to the top student technologists around the world to contribute to the mission of helping people gain the educational tool they need to succeed in a global world. We challenged our finalists to imagine new ways to use technology to bridge the gap and their ideas have been remarkable. Through their imaginative and thoughtful responses to our challenge, they have proven that they are the software visionaries of the future. They have also shown empathy, idealism, and a deep commitment to creating a better world.

It is fitting that the 2007 Finals are hosted by South Korea, a nation where education is deeply valued. South Korea's literacy rate is among the world's highest. Nearly 100 percent of the population can read and write. Most students in South Korea stay in school through the ninth grade, and increasing numbers are continuing on to high school. More than 1

million students are enrolled in colleges and universities, such as Seoul National, Yonsei, and Korea universities.

All of us on the Imagine Cup 2007 team at Microsoft look forward to another year of thought innovation and leadership from the best and brightest minds in the world. We are inspired by the possibilities, and are honored to enlist student technologists across the globe to join in the mission of helping people around the world gain access to a high quality education.

Imagine a world where technology enables a better education for all

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Theme: Education

## Welcome

#### Annyeong-haseyo! (안녕하세요!: Hello!)

#### Welcome to South Korea.

Seoul is a city of infinite discoveries. The capital of South Korea, Seoul is a city where the traditional and the cutting-edge exist in perfect harmony. It's a dynamic city that never sleeps, and the list of things to do is endless, from sampling the outstanding cuisine served in the city's excellent restaurants to climbing the rock faces that overlook the city. Come to Seoul, and learn why so many travelers fall in love with this fast-paced but relaxing city.

Korea is situated on the Korean Peninsula which lies on the northeastern section of the Asian continent. The peninsula shares its northern border with China and Russia. To its east is neighboring Japan. In addition to the mainland peninsula, Korea includes some 3,200 islands. Korea has four distinct seasons. Spring and autumn are rather short, summer is hot and humid, and winter is cold and dry with abundant snowfall. South Korea's dramatic and rugged terrain is defined by the soaring mountains that run down to the sea along much of the east coast.

It has been 4,340 years since the first kingdom in Korea was founded by Dangun. Today, South Korea's population is 48 million people. All Koreans speak and write the same language, which has been a decisive factor in forging their strong national identity. The Korean Alphabet, Hangeul was created by King Sejong the Great during the 15<sup>th</sup> century.

South Korea's long history has produced brilliant cultural heritages, leading UNESCO to recognize the unique value and the distinct character of Korean culture by designating a number of Korean treasures as World Heritage Sites. One World Heritage site, Changdeokgung is a palace set within a large park in Seoul. It is one of the "Five Grand Palaces" built by the kings of the Joseon Dynasty.

Koreans have traditionally placed great importance on education as a means for self-fulfillment as well as for social advancement. Becoming one of the world's most productive economies and trading powers was also possible thanks to its high interest in education.

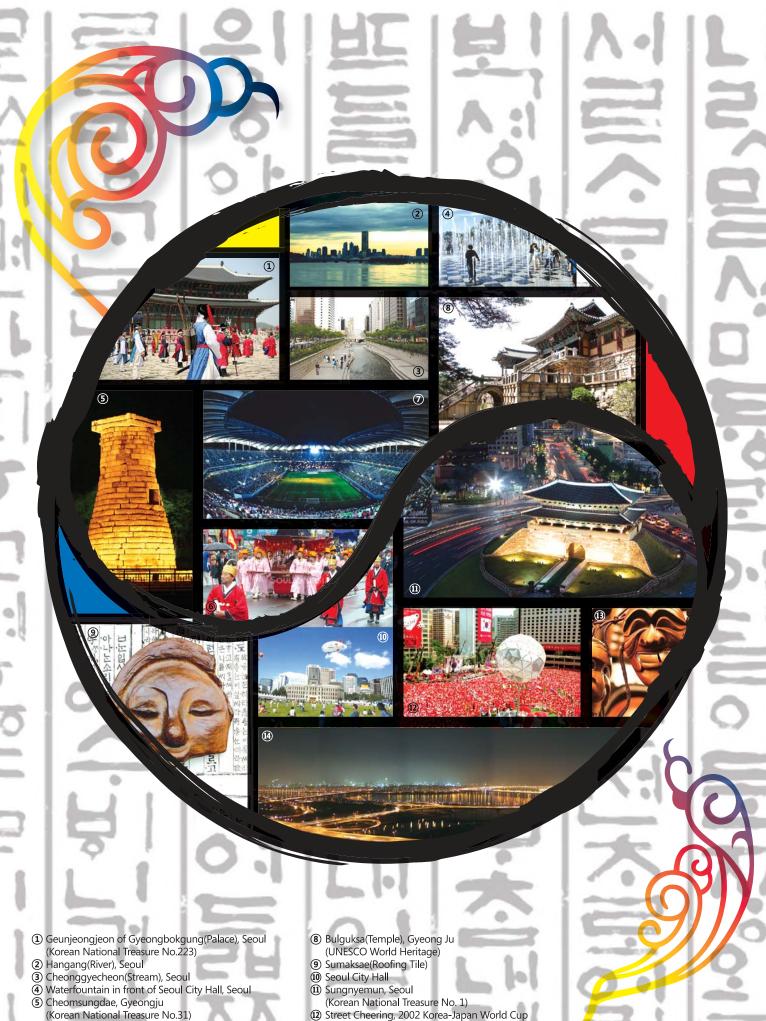
South Korea's stance as a powerhouse in terms of information technology is demonstrated by its vast IT-related production and exports, development of leading technology, and the wide use of Internet and mobile telecommunication devices within the country.

Its geographical location between such large economies as China and Japan means that South Korea is poised to emerge as a major economic and IT power early in this century. The size of the South Korean economy today ranks 11th in the world, and South Korea is working hard to become a world economic leader in the new millennium.

Welcome to South Korea. We hope you take the time to savor and experience Korean culture and the Seoul's cutting edge technology as you compete in Imagine Cup 2007.

#### Gamsa-hamnida.

감사합니다: Thank you!



- 6 Royal Procession
- Seoul World Cup Stadium, Seoul

- ② Street Cheering, 2002 Korea-Japan World Cup
- (3) Ahndong Hahoe Tal (Hahoe Mask)
- (14) A Night View of Seoul

## **Event Schedule**

## Sunday, August 5

Arrivals / Welcome Dinner

# Monday, August 6 Competitions Commence

# Tuesday, August 7 Competitions Conclude

(all except Software Design & Embedded Development)

## Wednesday, August 8

City of Seoul Cultural Tour Day Software Design & Embedded Development Finalist Announcements

## Thursday, August 9

Free Morning Software Design & Embedded Development Finalist Presentations Digital Theater

Friday, August 10 Software Design & Embedded Development Showcase World Festival **Press Conference** Farewell Party

## Saturday, August 11

Departures

## **Emergency Contact Information**

Imagine Cup Information Desk: (82 2)450-4959 Sheraton Grande Walkerhill: (82 2)452-6867

Police: 112

Fire / Ambulance / Disaster: 119





The only competition that is run locally, the Software Design Invitational challenges students around the globe to explore their own creativity by using technology to solve what they consider to be challenging problems. The Imagine Cup provides a theme, but the competitors provide the genius behind innovative, dynamic, and powerful software applications. Using Microsoft tools and technology, competitors can unleash their ideas, their curiosities, and their talents towards creating usable software applications. Competitors are asked to demonstrate innovation on the .NET Framework and Windows platform but the possibilities only begin with these requirements. Globally, students in this invitational conceive, test, and build their ideas into applications that can change the world. Many former winners go on to start their own companies, work at major corporations, and even integrate their projects into how their schools approach teaching.

The top three placing teams and the three teams that Microsoft and BT judge to have the most commercially viable application at the finals can participate in the Imagine Cup Innovation Accelerator, a joint project from Microsoft and BT. This special opportunity propels Imagine Cup software design champions into the next stage of developing their innovative ideas as a business. Teams selected for the Innovation Accelerator program receive technical support and business coaching to create the must-have technology and communications applications of the future. Over an intensive two-week period, students further develop their designs and viable business plans with close guidance from some of the best minds at Microsoft and BT at the Microsoft Innovation Center in Reading, UK.







# Algeria

#### HBM<sub>2</sub>

North Africa Region



#### **Team Members:**

Nadjet Belblidia Selma Hamouda Lamia Moudoub Lynda Mettouchi

# **Title of Project:** VisChild

#### **Project Overview:**

VisChild is kind of like having a tiny teacher sitting on top of your operating system that is specially designed for the age of your children. It allows you to create evolutionary sessions that "grow up" with the child. Depending on the child's profile, VisChild presents customized applications and interfaces to the child, and evolves progressively with him or her.

#### **Technology/software used:**

VisChild is implemented in C#. It uses Web services developed in C# and works with a SQL Server database.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

For a couple of years, the real challenge about new technologies has been to find the most creative and imaginative one. The Microsoft Imagine Cup enables students to step up to this challenge: develop the most imaginative technology that can be realized! That's why we registered in the competition and chose the Software Design invitational.

#### What has been your favorite part of the Imagine Cup competition thus far?

Our favorite part of the competition was when we presented our project to the jury. We just had a few minutes to convince them that our idea can really bring something new.

#### How did you come up with your idea?

Children are getting more and more interested in new technologies, and nowadays, the computer is the most commonly used technology. So why not introduce them to technology from early childhood! We first thought about a way that could make the computer less complicated to use for children. After that, we took our idea further and thought about developing a kind of tiny OS specially designed for children.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

VisChild could be the cherished son of Vista... So why not make it into a business!

#### What are you most looking forward to about the worldwide finals in South Korea?

In addition to the enriching experience of meeting students from the whole world and learning more from different projects, we really care about making our project the little change that will make education a right for all, not just a luxury.





## Argentina Wormhole

South Cone Region



#### **Team Members:**

Maximiliano Menasches Juan Ignacio Frecha Sally Buberman Mentor: Ignacio Lopez

#### **Title of Project:**

Wormhole: "A shortcut through space and time"

#### **Project Overview:**

Wormhole is a collaborative education platform focused on providing teachers and students with a rich toolset and communication environment they can use to create an enhanced remote learning experience. This goal is achieved by providing quality online classes that constantly feeds an intelligent knowledge base composed with video, audio, papers, forums, notes and a wide variety of resources that assures that gained knowledge is reutilized by other teachers and students. Furthermore, Wormhole provides a foundation for other educative tools to build on since it allows the use of visual plug-ins (i.e. physics simulators, chemistry labs, equation graphics) to extend its feature set.

#### **Technology/software used:**

- Microsoft .NET Framework 3.0 (WCF, WPF, WF, ASP.NET, ADO.NET)
- Microsoft Visual Studio "Orcas" Beta 1 and Visual Studio 2005
- Microsoft Visual Studio Tools For Office
- Microsoft Silverlight 1.1 Alpha
- Microsoft Expression Blend 2 Preview
- Microsoft SQL Server 2005
- Microsoft Office System 2007

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

Our own experiences as students showed us that there is a lot that can be done in order to improve the learning experience, especially in countries in Latin America like ours.

We had been working proactively helping pupils in different aspects when the Imagine Cup 2007 came up. At that point we realized that we could do something bigger, and we started imagining a complete software solution to address the main problems we encountered.

We strongly believe that Wormhole can make a really big difference in education, and that the imagine Cup, as the world's premier technology contest for students, is a big step to make it happen.

#### What has been your favorite part of the Imagine Cup competition thus far?

We think that the most interesting parts until now are:

- Our work as a team.
- Having the chance to meet people from all around the world
- Feedback from well-known professionals

#### Having the chance to meet people from all around the world

Feedback from well-known professionals

We've spent every weekend working together, having brainstorming sessions, writing down new ideas and testing them systematically. Even when difficult moments came, as we love what we do and we work as a team, we faced every single challenge together. We also find it very inspiring to get to know teams all over the world that have similar interests and amazing ideas. The national and regional finals were a great challenge, but at the same time we had the chance to listen to the jury's feedback which made us more confident and also helped us improve our project.

#### How did you come up with your idea?

As we said before, our personal experiences made us look for a solution that helps a bigger number of students and teachers to solve everyday problems. When we decided to apply for the Imagine Cup, we started a journey in search for an application that fulfils all the challenges we knew we could overcome. We defined, analyzed and validated our ideas with teachers and students from all over Latin America through our Web site and a well defined questionnaire.

From the beginning we were convinced that we needed a tool to improve lessons but also to make distances shorter, and Wormhole came up. Then, after many brainstorming, research and discussion sessions, we came up with the final prototype that we are glad to present to you in South Korea.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We believe that Wormhole must become a reality and we think the Imagine Cup is the first step towards that. We think that we can really help our communities and we are planning to do so right away. Behind Wormhole there is a strong business plan based on solid marketing strategies that will make this solution affordable and easy to implement by any kind of educational institution.

We have also thought about different schemes to ensure that this application will reach students and teachers with limited resources.

#### What are you most looking forward to about the worldwide finals in South Korea?

We foresee many challenges for the worldwide finals in South Korea, but at the same time we have great expectations for the upcoming rounds. Firstly, we want to see Argentina and South Cone reach the top places in the competition. This would be a big step towards making Wormhole come true. Secondly, we want to make friends from all over the world, share our experience and spend time together. Finally, we deeply desire to live the experience of presenting our idea and our platform to the Imagine Cup community. We are sure that we will learn a lot from them and they will help us to become better professionals.





## Australia Team APA



#### **Team Members:**

Philip Allan Haines Ngoc Thuy Duong Khuu Van Tieu-Vinh Ping Li

#### **Title of Project:**

Audio Programming Assistant

#### **Project Overview:**

We designed a system which enables blind and vision-impaired people to learn programming in an easy and simple way. The system is comprised of an audio programming tool, an audio Web browser and an audio Web site which acts like a learning resource center. The project aims to help blind and vision impaired people achieve equality of access and opportunity in information technology education that will ensure meaningful and equitable employment for their lives.

#### Technology/software used:

Technology: Text to Speech and Web Service

Software: MS Visual Studio.NET 2005, MS.NET Framework SDK V2.0, MS Speech SDK 5.1, and MS SQL Server 2005

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

A team from our university won the National Finals last year, the competition this year sounds challenging, the theme is very interesting, we want to do something to help students with disabilities. We also thought that entering the Imagine Cup would be a great way to send our message to the world that we wish to help blind and vision impaired people have a better education. Those inspired us to enter the MS Imagine Cup this year to let the world know and judge our ideas. We choose the Software Design invitational because all of us are software developers and subjects we enrolled at our university have similar requirements to Imagine Cup's ones.

#### What has been your favorite part of the Imagine Cup competition thus far?

Seeing what other teams came up with, the great opportunities to share and learn experiences from other teams, and doing something we know can help other people have na better education. Moreover, the feedback and comments we found on Web sites and blogs by the judges and software developers have shown that our work for blind and vision impaired people have been recognized.

#### How did you come up with your idea?

We reviewed former Imagine Cup projects for disabled people, related the theme this year to those people, and spent a few weeks for discussions and investigations to work on our ideas. During that time, we heard the statistic that blind people are four and a half more likely to be unemployed. We never see any blind people at universities, and there is no reason for blind people to not have technical skills. We are IT students and we think there is no reason that we cannot have more classmates who are blind and vision impaired succeed in IT courses.

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We will deliver our software product to Vision Australia, an organization for blind people and help blind people use our software. We will also try to find some ways to deliver the system to as many blind communities in different countries as we can, especially in low and middle income countries. We hope we will get support from public communities to help us on making the dream come true for us and for blind people.

#### What are you most looking forward to about the worldwide finals in South Korea?

We wish to let the world know more about our idea and do our best to win a prize because this is the best way to send our message to everyone that helping blind and visually impaired people achieve equality of access and opportunity in education is necessary. We also wish to share and learn experiences with other teams from different countries and to make friends with them. Finally, representing Australia in presenting a solution which can help people is a great honor for us.





## **Austria**

## **OOT Development Team**



Team Members:
Michael Hurnaus
Juergen Oberngruber
Claudia Oster
Christian Schafleitner

**Title of Project:**INTOI-Interchange of Ideas

#### **Project Overview:**

While commonly available flipcharts and whiteboards are regularly used in schools and universities, presenters are still subject to several restrictions. Flipping between pages and adding additional sheets is not just annoying but also time consuming. Once a word is written or a picture is drawn, there is no simple way to move the drawing from the place where it appears. Although people often use PowerPoint presentations in combination with analogous flipcharts, there is still no simple way to combine both to a powerful presentation tool. However, the main restriction of analogous flipcharts and whiteboards is the limited size of the available drawing area.

INTOI-Interchange of Ideas is a hardware-software setup that serves as a hybrid between a digital flipchart and a digital whiteboard. Pen based multi user interaction on a rear projection surface is quite similar to working on an analogous whiteboard. Intoi allows its users to easily write, draw and, additionally, load images, PowerPoint presentations, PDF's and videos. An easy-to-use menu system and a simple remote control enable the user to easily change properties and switch between slides. Navigation on the page of infinite size is performed by simple hand gestures.

Intoi combines the benefits of ordinary flipcharts and whiteboards with the potential of today's computer systems. Furthermore Intoi introduces a unique user interface which is easy to understand even for people without any computer experience. In contrast to comparable, commercially available solutions, Intoi's hardware setup is inexpensive to manufacture and easy to set up.

#### Technology/software used:

C#.NET, Tao Framework, Anoto Pen and Paper Technology, Microsoft Visual Studio 2005, WPF, WCF, Microsoft Office 2007 (Interoperability)

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

The Microsoft Imagine Cup was presented at our university in October 2006. We realized that our project would fit perfectly into the theme of this year's competition.

So we decided to enter the Microsoft Image Cup, since this offers us the possibility to present our project to a big audience. The Software Design category was chosen, since our project matched the requirements for this category best.

#### What has been your favorite part of the Imagine Cup competition thus far?

The most interesting part of the Image Cup so far was definitely the Austrian finals in Vienna. It was interesting to meet with other competitors and amazing when we heard that we reached the world finals in South Korea.

#### How did you come up with your idea?

We always wanted to develop a cutting edge application which could be used by a broad audience. After doing some brainstorming with colleagues of the "Office of Tomorrow" (www.officeoftomorrow.org) and our professor of our university we finally came up with the idea, to create a digital flipchart application which can be used in offices, schools and universities.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We are going to improve the usability of Intoi and add several additional features. Especially the combination of analogous and digital content seems to be an interesting topic for future work. Making our own business sounds interesting, but unfortunately we don't have the necessary money.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to meeting interesting people in South Korea and seeing projects from students from all over the world. Since we have never been to South Korea, it will be an interesting trip to get to know the culture of this country.



Design

Software



## Belgium

#### Doc&Duc



#### **Team Members:**

Jérôme BOUDART Yann CRUEGHE Stéphane DEMARCHE

#### **Title of Project:**

Doc&Duc, Overcome dyslexia for a better education

#### **Project Overview:**

In every country, many children are affected by difficulties in reading, writing and speaking in spite of normal intelligence and cognitive abilities. Scientists estimate that about 10 to 15% of pupils suffer from dyslexia. This problem is a major source of learning disabilities and about 20 to 25% of children who have this kind of weakness drop out of their studies. If they do not get the right treatment, they cannot be educated properly. Dyslexia is one of the main problems in children's training and education. This leads to serious gaps throughout life and this is why it must be treated during their youth. We think that a lot of progress can be done in this field. The Doc&Duc's goal is to allow these children to improve their chances.

#### Doc&Duc will be used by:

#### Therapists to:

- · Create and manage written, visual, listening or pronunciation exercises according to the goal required.
- Manage their patients' statistics according to their results.
- Subscribe to a specialist's community and exchange advices and exercises.
- Manage their offices in terms of patients' appointments.

#### Teachers to:

- Download and carry out exercises with their pupils at school.
- Register and authenticate children with the help of a fingerprint system which is easier and more entertaining than the classical "login/password" step.
- Update the results and statistics of every pupil resulting from achieved exercises.
- Detect dyslexia as soon as possible directly from their classroom.

#### Children to:

- Practice on their computer, at school or with their therapist.
- Have a global vision of theirs statistics.
- Participate in a community of people sharing the same problems and get advice and encouragements.

#### Technology/software used:

Doc&Duc is divided into several modules:

The **Doc@Desk** module is the therapist's application which provides all the tools to manage his office and build exercises for the Doc&Duc community.

The **Doc@Home** module is the child's application which enables him/her to solve exercises created by his/her speech therapist.

The **Doc@School** module is the teacher's module which is designed to detect speech disabilities directly from his/her classroom and then alert parents and therapists.

The **Doc@Web** module is an ASP.NET website used each actors of the community to share exercises, experience and help concerning the dyslexia.

To build each of these modules we used the following technologies:

Framework .NET 2.0

- Framework .NET 3.0 (Windows Presentation Foundation)
- ASP.NET and Ajax
- Web Services and Web Services Enhancements (WSE 3.0)
- SQL Server Database Management System
- Embedded development on the eBox 2300 system
- Microsoft .NET Remoting
- Fingerprint authentication

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

The Microsoft Imagine Cup gives us the chance to design and develop a powerful solution to a real problem without any restrictions. We feel free to create what we think is the best solution. The Microsoft Imagine Cup contest is also THE place to be when you are a student in IT. We love what we're studying. We are young analyst-developers who want to understand and use the latest technologies. The Imagine Cup and particularly the Software Design category allows us to practice what we learnt at school and to discover technologies that are not taught in our school yet. Thanks to this contest we've improved our skills and now feel ready to start our professional life.

#### What has been your favorite part of the Imagine Cup competition thus far?

At any time, we enjoyed the Imagine Cup challenge.

We have worked hard to find a real problem about the education theme. In order to build a solution, we met domain specialists, teachers, speech therapists, scientists and, of course, children. That was really a great human experience thus far. More than a technical contest, the Imagine Cup is a human experience... If we really have to choose one part as the best, we think that the test day with children at school is THE part we'll never forget. Thank you little friends. ;)

#### How did you come up with your idea?

We are IT specialists and our job is "to do right the right thing", but the "thing" is missing at first. We can't find a solution to a problem that hasn't been defined first. This is why we decided to meet specialists of education.

Our mentor had a speech therapist in her friends and asked her if she had any idea of tools she would like to use to improve the treatments she was providing to children.

And then she started to talk about dyslexia, exercises, software... from her point of view. Than we thought about it from the technical point of view and met again and again... because we wanted our solution to meet the speech therapists requirement. To finalize our design, we also met teachers at school, other speech therapists and parents' association.

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We think that Doc&Duc is a valuable solution which can help therapists and children to overcome dyslexia. We have already been contacted by a Belgian company which is interested in our project.

Doc&Duc could become real. We actually work on a business plan in order to evaluate if our idea could become a real business and if it will be possible for us create our start up, why not?;)

#### What are you most looking forward to about the worldwide finals in South Korea?

The worldwide finals in South Korea are already a great experience for us, we are all winners.

On the human side, we are looking forward to meet other winning teams to share our ideas and feelings about technologies we all used for our respective project.

On the professional side, we hope to meet great IT companies in order to get advices and information about life after the Imagine Cup 2007. :)





## Bosnia and Herzegovina Educabot



#### **Team Members:**

Leo Hatvani Ljubomir Karanović Boris Ostojić Senad Uka Mentor: Samir Ribić

#### **Title of Project:**

EducaBot-Speaking with the Web

#### **Project Overview:**

Our mission statement is to provide "intuitive search and adequate presentation of typed information". We will try to explain meaning of this phrase in the rest of the document. Fast development of computers, telecommunications and computer networks in the last decades has solved most of data storing, finding and sharing problems of pre-computer and early computer era. The Internet has enabled large amounts of data to be transferred across the globe in seconds between different types of devices. Internet has revolutionized education too. Students can easily access encyclopedic knowledge, find materials from other schools / universities, access latest research data etc. all without leaving the comfort of their rooms. What was a solution for problems of the past is quickly becoming a problem for our present.

The problems with using computers and Internet for education are:

- The spam and irrelevant sites (affecting every user)
- The search engine page ranking algorithms vulnerable to SEO (affecting every user)
- The format based organization of information (affecting every user)
- The unnatural languages for searching, slightly different on different search engines (affecting younger and inexperienced users)
- The different GUI for different educational packages (affecting mostly younger and inexperienced users)

In order to deal with named limitations and problems of modern Web in respect of education, we have decided to try a different approach, both in presenting and searching for the information. We have developed a system of communication based on natural language queries, which acts as an intelligent agent between user and rest of the world. On the behalf of the user, agent searches available data sources, and presents only the relevant information back to the user in a most appropriate manner.

Our project can be used by students / pupils trying to quickly find scientific facts in some areas, as well as pre-school children who can get information on various topics through an already familiar interface (MSN Messenger) independent of the subject that they are learning. In addition to giving you access to information, our solution provides a way of testing your knowledge, and storing statistical information for each user for testing. If the proposed improvements are done, the project can be used by teachers as simple distance learning platform.

#### Technology/software used:

- Microsoft .NET Framework 3.0
- MS SQL Server 2005
- AIMLBot-Natural Language Processing
- DotMSN-Messenger Communication Library

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

The Microsoft Imagine Cup provided us with a perfect opportunity to express some of our ideas about future education. As we are all students of computer science and engineering, Software Design represented the most logical area of competition.

#### What has been your favorite part of the Imagine Cup competition thus far?

All of us enjoyed research work, since the nature of the project offered a lot of space for exploration and new ways of integrating existing technologies.

#### How did you come up with your idea?

At first we came up with a simple idea related to natural language communication with computers. As we worked on the project, the basic idea constantly evolved and expanded, until it imbibed its current form.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We plan to continue our research in the area of natural language interaction between humans and computers and semantic Web, and to explore potential commercial applications (most probably in the form of natural language search engines).

#### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to the trip itself and to the numerous new experiences, as well as to the opportunity to show the potential of our project.





## Brazil

## **Oysterix SD**



#### **Team Members:**

Diogo Romero Burgos do Nascimento Murilo Rebelo Pontes Raquel Melo de Almeida Thiago Teixeira Seixas

#### **Title of Project:**

KnowTouch

#### **Project Overview:**

The KnowTouch is an educational system designed for visually impaired people. It consists of software that converts digital text to Braille and sends it to a device that simulates the Braille document using pins to do that. With this, the visually impaired people will be able to read anything they want, anytime they want it. And with the Braille learning mode they will be able to learn Braille.

#### **Technology/software used:**

C# and Visual Studio, assembly, electronic and microcontrollers.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

The 2006 Brazilian team and the opportunity to test our skills. We choose the Software Design invitational because is the most interesting category in the competition, where our idea could be really developed.

What has been your favorite part of the Imagine Cup competition thus far?

The opportunity to expand our social network and learn about new cultures.

#### How did you come up with your idea?

One of our team members wants to make a tribute to his grandfather, who was blind. With this project, we can help people who have the same problem that he used to have in life.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We are thinking of ways to improve the project and make it into a business.

What are you most looking forward to about the worldwide finals in South Korea?

It's too early to answer a question like that.





## Bulgaria

#### **Brainstorm**



#### **Team Members:**

Devan Varchev Ivaylo Bratoev Stefan Dobrev Stefan Zahariev mentor: Jordan Dimitrov

#### **Title of Project:**

Bookvar

#### **Project Overview:**

Bookvar is an application for interactive idea making and visualizing data. It is a tool that helps you to more easily memorize information. It is based on the idea of mind mapping, which has its roots in Leonardo Da Vinci's works. The foundation of mind mapping is creating mind maps which help you visualize information and making it easier to understand. Mind maps can be used in every single area of education:

- Brainstorming and visualizing ideas
- Organizing and presenting education material in interactive manor
- Improving memory and concentration
- Note taking during lessons
- Storyboarding and creating presentations

Our application will help teachers to teach and present their lessons in a new and different way. They can use the mind map instead of a linear plan which makes the learning process faster, easier and funnier. It will help them create interactive tests and evaluate students' performance. Collaborating on a single map they will have more fun and learn their lessons faster. Using this technique they will achieve better results in less time.

#### **Technology/software used:**

#### Technologies:

- Microsoft .NET Framework 3.0
- WPF
- WCF
- Microsoft .NET Framework 3.5
- System.Addin
- Silverlight
- SharePoint Services
- DLR (Dynamic Language Runtime)
- Microsoft Live<sup>™</sup>, Services

#### Software:

- Visual Studio 2005
- Visual Studio 2008 (aka "Orcas")
- Expression Blend

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We were motivated to learn new technologies and create software that will help the world become a better place to learn and educate. We think that the greatest problem of our time is the enormous amount of information that we face every day. So the Imagine Cup was a great opportunity to develop our idea and innovate. We chose Software Design as our competition because it requires a team working together, which we think is our strength-we're a very highly motivated team.

#### What has been your favorite part of the Imagine Cup competition thus far?

The local finals (and the night before them, almost no sleep:)) when we won.

#### How did you come up with your idea?

We had similar idea before the Imagine Cup 2007 theme was announced. After we saw the theme we immediately registered for the competition.

#### What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

Definitely the finals are not the end of our project. We surely will continue to develop it and hopefully someone will invest in it and make it a real business.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are eager to meet new people, have great technology talks, and have great fun in South Korea.





## China

#### **Paladin**



#### **Team Members:**

Zhou Yu Qi Chen Jianxin Mao Sen Li

#### **Title of Project:**

Openlearning

#### **Project Overview:**

Openlearning is a solution that provides a better education for all. It brings more educational resources to teachers and students, especially those who are facing the challenge of lacking enough resources in the rural and remote areas of the developing countries such as China. Openlearning solves the problem at two layers. The core of the solution is a set of easy-use and interactive tools such as online virtual lab to improve the quality of the education. Also, Openlearning is a platform to encourage and coordinate the volunteer and social efforts for better education. Passionate volunteers can match their contribution with the needs of schools through Openlearning. Additionally, the solution incorporates mobile devices to assist volunteer teachers when teaching in rural schools.

#### **Technology/software used:**

Technology: Microsoft.NET Framework 3.0, Microsoft.NET Compact Framework, ASP.NET, Silverlight, AJAX. Software: Microsoft MSN messenger, Microsoft Virtual Earth, Microsoft MDBG, DIMDIM.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

As everyone knows, the Imagine Cup is the world famous student technology competition. It encourages us to use technology to change the world, and reach our potential. The Imagine Cup is also a big stage for us to show ourselves to the whole world, and realize our dream. Software Design is the main competition of the Imagine Cup, so we choose it.

#### What has been your favorite part of the Imagine Cup competition thus far?

It is very excicting to see our idea becoming to a reality. We are proud of to show our project to the world. Meanwhile, we learned how to collaborate with others, and learned how to be professional. And we are very happy to make lots of friends all around the world. :)

#### How did you come up with your idea?

When we enjoy the benefit that technology today brings to our lives, there are still lots of students who don't have the opportunity to experience the power of the technology, such as in the rural and remote area of developing countries. So we want to work out a solution to solve these problems and give everyone a better education.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We want to make our project real. We hope more people and organizations can join with us.

#### What are you most looking forward to about the worldwide finals in South Korea?

We want to meet the students from all around the world who are in the world wide finals. Hopefully we can we can achieve good results too. :)





## Croatia

eS.NET



#### **Team Members:**

Maras Josip Tomasović Mislavić Matijević Marko Šolić Petar Mentor: Šaškor Ivan

#### **Title of Project:**

eS .NET

#### **Project Overview:**

We are developing educational software for children with mental retardation. It helps them to learn and it develops visual, auditory and motor abilities.

Our software consists of 4 major applications:

- Learning Unit (application in which students work)
- Supervision Base (application that teachers use to monitor students)
- Curriculum Center (used to create educational tasks)
- Analysis Center (used for monitoring student's progress)

#### **Technology/software used:**

Microsoft.NET 3.0 (WPF, WCF), Silverlight, IIS, VS 2005, MS Expression Studio, VS Orcas Beta 1, MS SQL 2005, Office 2007.

What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

This was a great opportunity to learn about new technologies and better ourselves. We decided to compete in Software Design because we study computer science.

What has been your favorite part of the Imagine Cup competition thus far?

Meeting new people, learning new things, winning...

#### How did you come up with your idea?

There is a Center for mentally challenged children near our university. We decided to contact them and develop something useful.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We plan to further develop our project and implement it in several schools.

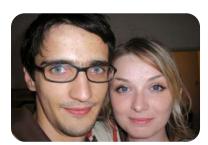
What are you most looking forward to about the worldwide finals in South Korea?

Winning, South Korea, fun, tae kwon do, sake...





## Czech Republic SilentBooks



Team Members: Aleš Šturala Dominika Sedlaczková

Title of Project:
SilentBooks

#### **Project Overview:**

Project SilentBooks aims to provide deaf people with information in a sign language. Why? A language we use, like English, is an artificial language and deaf people cannot use it due to their handicap. Words are to them just a sequence of characters, whose acoustic form they don't know, contrary to healthy people. This is a significant problem when they study in English or any other spoken language.

The principle of our project is a signing 3D model that provides education in sign language instead of classic language.

#### **Technology/software used:**

- Microsoft.NET Framework 3.5 WPF, LINQ
- SQL Server 2005
- Direct 3D
- Web service

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We found information about the Imagine Cup competition in our school and decided to participate in the Software Design category because it is the best category for our project.

What has been your favorite part of the Imagine Cup competition thus far?

Winning the Czech semi-finals that were held in Prague.

#### How did you come up with your idea?

Education of a hearing impaired people is a serious problem. We wanted to find a solution and try to develop a computer model that knows sign language and can provide education in sign language.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We would like to make our project into a business because it solves a real problem and it could help hearing impaired people with their education.

What are you most looking forward to about the worldwide finals in South Korea?

We would like to see a different culture, meet new people and taste Korean cuisine.





## Denmark Team DTU



Team Members:
Thomas Ladiges Jørgensen

Peter Bach Andersen

#### **Title of Project:**

Student Development Framework-for evaluation and motivation

#### **Project Overview:**

The solution makes use of Web-based assignments and statistics to make it easy for the teacher, student, and parents to follow up on the goals and the development of the individual student. It also enables the teacher to help the student through assignment customization and Web-based support.

#### **Technology/software used:**

#### Technology:

Windows Presentation Foundation, Windows Communication Foundation, Ajax, Webparts, Sidebar Gadgets, Ajax, Web Service, Excel Web Service.

#### Software:

Microsoft.NET Framework 2.0 and 3.0, Visual Studio 2005, SQL Server 2005.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We found the topic "Education" to be very interesting. There is currently an increasing focus on Education in Denmark. We also got the opportunity to work with some new and exciting technologies like Microsoft.NET 3.0.

#### What has been your favorite part of the Imagine Cup competition thus far?

We have enjoyed creating posters and videos for the presentation in Second Life.

#### How did you come up with your idea?

We looked at some of the political strategies that have been introduced in Denmark in the recent years.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We will see after South Korea. :)

#### What are you most looking forward to about the worldwide finals in South Korea?

It will be very cool to go to South Korea, but we also look forward to meeting the other teams and seeing their solutions.





#### **Nexxt Generation Software**

Andean Region

**Ecuador** 



#### **Team Members:**

Juan Andrés Arias Roldán Jamil Omar Falconi Aguirre Oscar Leonardo Riofrío Baquero Víctor Hugo Munoz Jensen Mentor: Edison Lascano

## Title of Project: Hermeneuein

#### **Project Overview:**

Project Hermeneuein helps people with physical disabilities and kids gain access to a good quality education, with an Artificial Intelligence search engine following Web 3.0 principles, using just your voice in a natural way.

Our goal is to add a layer of meaning on top of the existing Search Engines that would make it less of a catalog and more of a guide-and even provide the foundation for systems that can reason in a human fashion. That level of artificial intelligence, with machines doing the thinking instead of simply following commands is the objective of the project. For example we can give a reasonable and complete meaningful response to a simple question like: "What do you know about Science" or "What do you know about Leonardo DaVinci?"

You can interact with the knowledge, use multiple devices on one machine, and navigate through the knowledge as you never have before. You have the ability to translate anything into 12 different languages, use Live Search with special filters intended to prevent kids from seeing inappropriate content, and challenge your knowledge with self tests. You also have a good quality of information, as it is delivered by experts around the world. You collaborate with your team mates, even if one of them has a physical disability. Discover a new way of interactivity, the new self education.

#### Technology/software used:

#### **Operating Systems**

Server:

• Microsoft Windows 2003 Server

Client:

• Microsoft Windows Vista

#### Development Tools / SDK's / Technologies

- Microsoft Visual Studio 2005
- Microsoft Visual Studio 2008 CodeName: Orcas
- Multipoint SDK
- ASP .NET
- Windows Presentation Foundation
- Windows Communications Foundation
- ClickOnce
- Windows Sidebar Gadgets
- Microsoft Expression Blend

#### Database

• Microsoft SQL Server 2005

#### **Enterprise Servers**

- Microsoft Internet Information Services 7.0
- Microsoft Speech Server 2007 Beta

#### Hardware

Raw Input Device:

• Nintendo WiiMote (Motion Sensitive pointing device)

#### Other Technologies

- Windows Vista Speech Recognition
- Microsoft Live Search
- Microsoft Virtual Map
- Microsoft SilverLight
- Web 3.0
- Resource Description Framework
- Web Ontology language
- Sql Server 2005
- Silverlight
- Speech Server

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We are software developers and we wanted to help society by giving everyone access to good quality information.

#### What has been your favorite part of the Imagine Cup competition thus far?

The trips, and the opportunity to meet people.

#### How did you come up with your idea?

We want to create a new tool to have self learning process, and help people with some disabilities to be integrated to the normal education.

Learn with the technology as you learn with your teachers, using interactivity and breaking the common technology barriers.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

Yes, we do, we want to help people by making our dream a reality, and put our efforts into helping society.

#### What are you most looking forward to about the worldwide finals in South Korea?

Seeing other teams' projects, and the opportunity to learn new technology.



Design

Software



## TroubleTicket



Team Members:
Noha Radwan
Mohamed Radwan
Tarek al Gaaly
Ahmed Fathalla

**Title of Project:** EduCare

#### **Project Overview:**

EduCare is a comprehensive framework that improves the educational lifecycle of students with special needs. EduCare automatically generates an individualized educational program tailored according to each student's abilities and disabilities. Doing so relieves teachers and educational specialists from the burden of customizing course material and exams and provides students with an improved learning experience. Furthermore, EduCare provides a vital bridge between parents, teachers and specialists. It allows parents to provide critical feedback about the student's psychological and physical state outside the walls of the school while allowing them to monitor the student's performance at school on a day-to-day basis.

By providing a fast and efficient communication link between parents, teachers, and specialists, EduCare drastically cuts down the time and cost needed to support education for challenged individuals and improves the quality of the education provided to these students. This in turn means that EduCare can increase the capacity of institutions to provide this kind of special education-thus enabling more and more challenged individuals to get the education they deserve.

Through its promise to increase both the quality and quantity of special education, EduCare can be a real solution to many of the learning problems the world faces today.

#### Technology/software used:

- Microsoft.NET framework 3.0/2.0
- Artificial intelligence techniques
- Microsoft.NET Compact Framework 2.0

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

When we first heard about the Microsoft Imagine Cup we were ecstatic, as we were very enthusiastic about using technology that we learned as students into solving REAL LIFE problems. We have always heard of people wanting to change the world, speeches about a better and brighter tomorrow, but for the first time in our lives&we really had the chance to DO something, to help make tomorrow better than today, to be the CHANGE we wanted to see in world around us. This is why we decided to join Microsoft Imagine Cup in the Software Design invitational.

#### What has been your favorite part of the Imagine Cup competition thus far?

Our favorite part was when we implemented our project for the Imagine Cup in specialized institutions and schools for special education, and got feedback through the extreme joy and satisfaction in the eyes of the teachers, specialists, and parents of students with special needs. The satisfaction of seeing our project make people happy and the continuous supportive feedback from

people who have been experts in that field for over than 15 years and people who have been living the problem for many years, fills us with happiness and boosts our morale. We know then we are on the right track, that we are truly serving people correctly and that our vision meets their requirements. This is one of our favorite experiences in the Imagine Cup competition thus far.

Another unforgettable moment was when we went to the USA to present our project to Bill Gates and Craig Mundie and we got great feedback from Bill Gates. When we explained to him what we were doing and how we solved given problem, we were ecstatic to hear Bill Gates tell us It s a great area. I completely agree with your vision. Thank you. Great work. These words will are still resounding in our heads... and will for a really long time.

#### How did you come up with your idea?

One of our team members, Mohamed Radwan, has an old friend that he's known for almost 20 years. He was surprised and shocked to know that his close friend had a disabled brother. This brother was never introduced or brought out in any conversation or even seen in any occasion... it was as if his family was ashamed of their disabled son, even though he didn't choose to become a disabled individual. Not only did he face the toughest challenge of being disabled, but he also had to deal with being a source of embarrassment to his family and relatives.

This is when we decided "THIS MUST CHANGE!" And we came across the theme of the Imagine Cup this year and we thought that maybe we could help those challenged individuals to lead a successful and independent lives if we could offer them the right quality education with affordable prices.

And after an extensive research for more than eight months, we discovered that it's not their disabilities that are blocking them from being equal and productive individuals of their communities, it s our disabilities as the world s technology holders in not helping them by using our complete blessings of physical and mental wellness. Instead we develop a community aspect of shame and conceal of their problem, which they didn't choose in the first place.

So we started developing "EduCare", and as we implemented and tested it with teachers and specialists, we think that we are achieving our goal of helping students with special needs and giving them an equal and fair opportunity of a successful and independent lives.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

Our ultimate goal is to implement "EduCare" in the whole world, enabling equal and fair chance to each and every student with special needs, by drastically cutting down the very high prices of their education and offering them quality education that will make them ready to face a new independent lives.

#### What are you most looking forward to about the worldwide finals in South Korea?

A world where each and every student with special needs has easy access to quality education with affordable prices. A world where families and communities treat challenged individuals with equal and fair rights, where we can change the sympathetic look in the eyes of people for challenged individuals into an appreciative and admiring one. A world where people with special needs build their communities together with their peers in the society, and lead successful and independent lives. This is our dream.





## Estonia DHB



Team Members: Aleksei Vassiliev

Inga Bemman Mentor: Enn Õunapuu

#### Title of Project:

DosKa

#### **Project Overview:**

The DosKa framework is a very powerful simulation environment that allows a natural and familiar style of interaction.

The DosKa application provides the advantage of giving you the feeling you're drawing on a blackboard or paper and yet giving you the ability to do things that are not possible on a regular blackboard. Let's say a physics teacher wants to draw a sketch on a board to illustrate a principle of a Newton's law. That sketch on a board might be enough for students to understand how the law works, or maybe not. The Doska however, perfectly understands the sketch and generates an animation that produces the expected simulation, in this case a simulation of a Newton's Law.

Moreover, the system is not limited to physics. It can be successfully applied in creating life like simulations for chemistry, biology and many other topics. Also it provides means for a shared work environment, allowing multiple users work at the same time on the same simulation. You can check out our blog to learn more: http://doska.wordpress.com/

#### Technology/software used:

- Microsoft.NET 3.0
- WPF
- Windows SharePoint
- Groove
- Windows Server Expression Blend.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We believe we can make a difference on how technology improves education for everyone. Making the change using latest technology tool available to us is inspiring by it self. Also it is a great way to experience and learn about real live software projects beyond the classroom and it is a great way to meet other students from around the world.

#### What has been your favorite part of the Imagine Cup competition thus far?

Working with the team and Microsoft. Everything is so well organized and professional.

#### How did you come up with your idea?

We can't imagine a classroom without a blackboard, and yet we use old and very limited versions of a blackboard. We wanted something more powerful and interesting. Thus we came up with the idea of DosKa project-the blackboard of the next generation.

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

After the finals in South Korea we are going further develop the project and adapt it to local college classrooms. We already met with professors who are very excited to use the application for their classes. We have contacted SmartBoard® manufacturer for an SDK that would allow our application to work on their hardware. To make this project commercial we would face licensing issues with a Hardware manufacturer. However, we plan to work with the hardware company, because our project would benefit them as much as it would benefit everyone else.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are very excited to visit South Korea. For us it is an exotic country and we are anxious to get to know it. Also we want to meet other teams, share the experience and learn about other projects. We believe that technology can help to change the world for a better place and being a part of this change means a lot to us.





## **Finland**

#### **Team Eduaware**



#### **Team Members:**

Aleksanteri Aaltonen Ferrix Hovi Jyry Suvilehto Pyry Åvist

#### **Title of Project:**

Collaborative Lecture

#### **Project Overview:**

It aims to enhance interaction during lectures.

#### **Technology/software used:**

Web Services, ASP .NET Ajax, WPF, Microsoft.NET Compact Framework, SQL Server, rss-feeds, etc.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

Well, the problem we are addressing is both real and very annoying for us students. Software Design seemed only natural, as some of us already had experience in it.

#### What has been your favorite part of the Imagine Cup competition thus far?

The free beer. Just kidding, we really liked the feedback we got from the jury in our national semifinals because it gave us new insights into what we could do differently. We were also very impressed with what the other Finnish teams had come up with.

#### How did you come up with your idea?

Jyry: Well, I had just found out that the 2007 theme would be education. Went to take a shower and at first I thought I had gotten some shampoo in my eye. Turns out it wasn't shampoo at all, but rather an idea breaking its way into my thick head.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

Our idea strongly relies on improvements in technology that will be more widespread in a few years, so further development and an optimally timed launch of the product is a real possibility.

#### What are you most looking forward to about the worldwide finals in South Korea?

The free beer, again. Oh, and hearing what our competitors have imagined.





France

re-Educate

## Team Members: Nathalie Pettier

Johanna Piou
Charles Hetier
Bastien Ingweiller

Mentor: Vincent Le Quéméner



re-Educate



#### **Project Overview:**

re-Educate is an educational platform which is smart and completely adaptable. Its goal is to help disabled children to get a decent education because even in the most developed countries, millions of them are not in school. The application gives them the opportunity to go to school and be in a classroom as any other child. It also allows teachers to supervise their work, follow their progress and configure the application depending on the disability of each child.

To make the navigation easier for the child, we provide him different solutions to overcome their disabilities and interact with the computer: voice, graphic tablet and joystick.

#### **Technology/software used:**

C#/ Microsoft.NET, WPF

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

Competing in the Imagine Cup is a challenge. It's the opportunity to use our imagination to create innovative software that will change the lives of millions of people.

#### What has been your favorite part of the Imagine Cup competition thus far?

Our favorite part has been to work as a team, share our ideas, and see the project growing day after day. We are also very proud to have created a project that can help a lot of people.

#### How did you come up with your idea?

We are members of a charity association named ISEN EspÈrance which realizes a lot of humanitarian projects. Being part of a charity gives us the chance to approach the Imagine Cup with a humane vision and above all, the will to help people in difficulties.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

For us, the best award is to see a child using re-Educate and we are sure that it can change the life of millions of them. During the developing process, we worked in collaboration with an ergotherapist and now he's using re-Educate in his daily work. But we'd like to find some sponsors that will help us to commercialize our project.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are very excited about showing our project to the world and see what people think of it. We also want to see projects of other teams, meet students from all around the world, and of course, discover South Korean culture.





## Germany Team UbiZoo



#### **Team Members:**

Eike Falkenberg Fatih Keles Jan Napitupulu Thomas Schmidt

## **Title of Project:** UbiZoo

#### **Project Overview:**

UbiZoo offers technological support for a visit to the zoo including educational preparation and reinforcement for students and teachers in the context of natural history instruction at primary schools. Through the integration of modern, mobile computers the visit to the zoo becomes an exciting experience, for pupils and teachers. The children at the same time are inspired to study and playfully attain knowledge.

UbiZoo consists of three parts: UbiPrepare for the preparation, UbiActive for the time in the zoo and UbiEducate for later reinforcement.

UbiPrepare offers a completely new possibility for the teacher to prepare lessons. The teacher has access to a multimedia database and is able to link videos, pictures and texts with the map of the zoo. Thus he receives a personalized and annotated route for the trip to the zoo.

UbiActive uses this provided route and serves as a multimedia companion to guide through the zoo attendance. The teacher can access the annotations with his equipment and can use it as additional teaching material. Videos, pictures and text annotations can be made and stored with a location reference. The pupils can interactively participate with devices suitable for children and answer a quiz.

UbiEducate completes the concept and uses the data that was collected during UbiPrepare and UbiActive, to generate a personalized Web page for reinforcement. The children can relive the zoo attendance virtually, and are able to access all multimedia annotations and information.

#### Technology/software used:

The UbiZoo platform is based on the Microsoft .NET Framework 3.5. For the implementation of the rich client browser application Microsoft Silverlight is used. Microsoft SQL Server 2005 serves as the database server for persistence. The teacher's client, an ultra mobile PC, is communicating via Bluetooth with the pupils' devices and uses Windows Presentation Foundation for the user interface. We chose the current beta version of Visual Studio Orcas as our IDE.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We already took part at the German finals last year. This year we wanted to profit from our experience to get a better placement. We decided to take part at the Software Design invitational because it is our major profession in our study.

#### What has been your favorite part of the Imagine Cup competition thus far?

The most exciting part was to travel to Seattle and meet Bill Gates.

#### How did you come up with your idea?

The issue of this year's imagine cup is education. In our opinion education starts with the children. Children like animals and in the zoo there are a lot of different and interesting animals. So we developed a system that allows children an interactive playful learning experience outside the school with a long term learning effect.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

First of all we plan to finish our master theses and graduate at the university. At the same time we want to go on with the development of our project and plan to work out a business plan.

#### What are you most looking forward to about the worldwide finals in South Korea?

To have a great time and a lot of fun with the other participants.





## Greece

Noesis



**Team Members:** 

Panagiotis Petrantonakis Jason Vittorias Alexandra Tsiligkyri Dimitris Mpolis

#### **Title of Project:**

Noesis, A Novel Educational Tool For Kids With Autism Spectrum Disorders

#### **Project Overview:**

Taking into consideration the individual characteristics of the children with autism spectrum disorders, the system adapts suitably the educational procedure. For example, the system can detect the level of stress the educational procedure causes to the kid by a specifically designed watch which transmits wirelessly the main biological signals of the pupil (Heart Rate, Temperature etc.).

On the other hand, through wireless tags (RFID), which are placed in the kid's toys it is possible to obtain the most frequent patterns appearing during the learning process. Finally, Noesis, in order to help kids with autism as far as their socialization is concerned, obtains and analyzes information while the kid interacts with a specifically designed robot. The data collected from the previous processes is passed to the educator in order to help him easily identify the individual educational weaknesses and be informed of each child's progress.

#### **Technology/software used:**

#### Servers:

- IIS 7.0
- SQL Server 2005 Standard Edition

#### **Development Tools:**

• Visual Studio 2005 Team Edition

#### Other Technologies:

- Microsoft.NET Compact Framework 2.0 SP2
- Windows Mobile 5.0
- Windows Vista Business Edition
- C#
- XML Web Services
- ASP.NET
- MS DirectX 9.0

#### Hardware:

- Exmocare BT2
- Blueradios Bluetooth Chip

- MIO A701
- Mini Magic-232 RFID Reader
- EM4102 RFID tags.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

The main reason that triggered us to participate in the Imagine Cup competition is that it is one of the biggest technological competitions for students and would help us to test our abilities and gain constructive experience by interacting with other students studying in the field of software design.

#### What has been your favorite part of the Imagine Cup competition thus far?

The Greek finals were a great experience for us-it was very satisfying to win!

#### How did you come up with your idea?

This year's competition theme refers to applications that would provide a better education for all. Based on this subject and due to the luck of effective educational software for kids with autism spectrum disorders we decided to develop an application that would help them enhance their abilities according to each pupil's needs.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

So far, several special schools for kids with autism spectrum disorders have shown interest in obtaining Noesis in order to use it during the educational procedure. This triggers us to optimize our software application and, in the foreseeable future, to make it into business.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to acquiring experiences, meeting new people, sharing ideas and learning more about the other projects as well as trying our best to gain the first prize in the competition.





## **Hong Kong**

**Masters** 



#### **Team Members:**

Jacky Siu Lun Ting Gabriel Yat Hei Lee

# **Title of Project:** Learning Explorer

#### **Project Overview:**

Learning Explorer employs Radio Frequency Identification (RFID) and mobile technology to enable teachers and learners to interact in a living environment. RFID is a wireless data collection technology that uses radio signals to identify learning objects, deliver dynamic learning content, locate students' position and hence build a context-aware learning environment. By combining the concept of treasure hunt with learning, learners can simply utilize a Bluetooth embedded mobile device like Personal Digital Assistants (PDA) to approach and identify specific clues (i.e. learning objects) and solve them; as a consequence they can achieve their learning goals with highly integrated learning effects.

#### Technology/software used:

Powered by VB.NET Compact Framework and SQL Server 2005, Learning Explorer enables everyone to interact with educational resources in various and innovative ways rather than traditional classroom face-to-face learning and e-learning. Learners can simply equip themselves with Bluetooth and RFID reader-enabled mobile devices to read the tagged-object's information and obtain the dynamic learning contents via the WIFI/3G technology. On the other hand, the teachers can perform manage learning and track the progress of each learner by the Web portal written in Silverlight, and ASP.NET AJAX. Finally, Learning Explorer employs VB.NET to build an intelligence engine to dynamically provide a better and tailor-made learning model for different learners.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We love innovation. We like thinking of creative ideas (such as "what we have learned" and "what we have observed") to contribute to society. A "total solution" is the best way to contribute the society-- therefore we decided to compete in the Software Design invitational.

#### What has been your favorite part of the Imagine Cup competition thus far?

The favorite part is that we can represent our home country, Hong Kong, to compete with other countries. Whether we win or lose, we are still proud of us and proud of Hong Kong.

#### How did you come up with your idea?

Recently, more and more education experts have discovered that people can learn faster in a collaborative environment. Therefore, we designed our solution around this knowledge.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We believe our solution can provide a better learning environment to people, so we will promote it to schools, outdoor environment owners and even the Education Department. If possible, we will try to make our solution into a business.

#### What are you most looking forward to about the worldwide finals in South Korea?

For us, the most interesting thing is seeing "how did competitors from countries create solutions to address the weakness in today's education". People from different cultures may have different angles to look at or analyze things. As a result, we think the finals are a great chance for us to learn from others and share our work with others in this worldwide competition.





## Hungary the Team



#### **Team Members:**

Jakab Emese Kapui Ákos Orosz Bálint Zöld László

## Title of Project:

OneTouchLearning

#### **Project Overview:**

OneTouchLearning is an innovative solution at language teaching for young children. The goal is to combine learning with the joy of playing. The fact, that is uses all three of the sensory organs makes it unique among any other language teaching application!

#### Technology/software used:

Visual Studio 2005, Expression Blend (WPF), RFID and SAPI.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We love competitions because we can test our knowledge with other people. We also participated in this competition last year, we won the finals at home, but we didn't qualify for the next final. This year, our goal is to compete in the worldwide final.

#### What has been your favorite part of the Imagine Cup competition thus far?

The excitement of the nationals. We worked hard and it was really interesting to see the other presentations, and to meet other teams.

#### How did you come up with your idea?

We did a lot of background-research on a variety of topics, and found RFID was a really emerging technology. We've had a lot of ideas in connection with the technology, and in the end we chose together from the ideas. We found that teaching this way children is a good presentable, and really unique kind of teaching method! Something that goes back to the beginning!

What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

RFID is an emerging technology. By approximately 2012 every item you buy in Tesco or Walmart will have an RFID tag embedded in it, so by that time, our solution could reach EVERY household. Now we are working together with kindergartens, and collecting feedback and input on how to make our product better, and easier to use for children.

#### What are you most looking forward to about the worldwide finals in South Korea?

We want to do some networking, and to talk to some technology "celebrities" if possible! :)

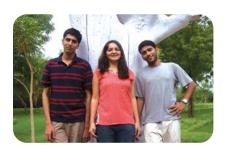
We would also like to have a bit of sightseeing. People from Europe do not often get the chance to experience Asian culture!

We love every competition. We love to meet our challengers, to get to know both their projects, and their developers. We are looking forward to listening to the jury's questions and advice, to gaining precious experiences, and to improving our skills!





#### Team BlueLeaf



India

**Team Members:** 

Avi Mehta Deepak Jagdish Vasudhara Kantroo

## Title of Project:

Recoo

#### **Project Overview:**

"Where is all the knowledge we have lost in information? "-T.S.Eliot

We address the theme of 'better education for all' through our attempt at a more comprehensive and incremental learning system, and therefore minimal loss of knowledge. (Doesn't everyone keep saying that?) Recog acts as a space for an organised collation of all learning material; be it scanned images of handwritten notes, related content from books, or content from Internet. (Urghh, Information overload?? Nope, read ahead.) It reads through the content and identifies not just keywords but key-concepts from the same.

Furthermore it provides a non-intrusive automatic search of the key-concepts, organises content by relevance and tags it preferentially. (And it is all searchable!!) Also it keeps all these concepts linked via any common threads so if you must look over your ninth grade chemistry notes on esters, it would prompt you for a quick revision of what you learnt on hydrocarbons since class seven! (Ah, that frequent rings-a-bell feeling about things. It is worse than not knowing at all, right? Oh, are you still thinking of what esters were? Boy, you need Recog!)

We realise the importance of visual-media in learning, therefore Recog enables a friendlier approach to information-visualisation. All in all, Recog would compile your life's lessons, learn them with you, add to what you know about them, and keep reminding you of them as and when needed.

#### Technology/software used:

Microsoft.NET framework: Version 3.0, Compact Framework Operating Systems Targeted (for desktop version):

- Windows Vista
- Windows Mobile 5.0
- Windows XP
- Windows XP Tablet PC Edition

#### Others:

- Microsoft Silverlight
- Microsoft Expression Blend
- Microsoft Visual Studio 2005
- AForge .NET

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

All three of us are technophiles. We love ideas, and figuring out the impossibility-factor in those ideas, and then taking them up as challenges. So far, it has been on a smaller scale, but the Microsoft Imagine Cup looked like the perfect platform to push our limits. Moreover, we are enthusiastic about getting our solution out into the market, and we really hope to be a part of the Microsoft-BT Innovation Accelerator Program.

Why software design? Very simple? We could dream, and then slowly chisel our dream into reality with awe-inspiring software. And we LOVE doing that.

#### What has been your favorite part of the Imagine Cup competition thus far?

So far our favorite part of the Imagine Cup was participating in the National Finals. Especially presenting at the stage, speculating about the results, waiting for them impatiently, hearing our names being announced as the winners and finally, going up the stage to celebrate our effort.

#### How did you come up with your idea?

Through observation of simple problems around us and our drive to solve it. When the theme was announced we toyed with many ideas-solutions for Attention disorder problems, accessibility solutions; but we decided on this one on the single very powerful basis-that there was a need to organize all the information into useful knowledge on a personalized level, and also that we, and the many others like us would be able to use it.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We, as individuals, are looking forward to any opportunities that offer growth prospects to us. Our heart lies in innovation, and taking on challenges. So, we are really keen on receiving feedback on our idea and our work from the experts, at South Korea. We, as a team, wish to take the project forward and therefore make it into a business.

#### What are you most looking forward to about the worldwide finals in South Korea?

Besides the competition, we are really looking forward to the exposure and the experience of meeting experts from academia and industry, and young innovators like us. We are looking forward to sharing ideas and networking with people. And yes, last but not least, we are looking forward to South Korea, an amazing trip, and bringing the trophy home! Check out our Web site: http://www.projectrecog.com





## Indonesia A

Aksara



**Team Members:** Mohamad Octamanullah

Budiono Riza Ramadan Desi Hadiati

#### **Title of Project:**

ABC

#### **Project Overview:**

Education is one of the most important aspect in one's life. It enables us to gain knowledge to help us survive in life. But before we can gain an effective education in any field of knowledge, we must have the fundamental abilities of knowing how to read, write, and count.

ABC is a software program that provides reading, writing, and counting lesson to illiterate people. This software can make this world free from poverty as poverty stems from illiteracy and illiteracy stems from poverty.

#### **Technology/software used:**

#### SDKs:

- Microsoft MultiPoint 1.0 SDK
- Microsoft .NET 3.0 Framework (Speech API SDK, Windows Presentation Foundation)
- Microsoft Tablet PC SDK 1.7

#### Tools:

- Microsoft Visual Studio 2005
- Microsft Expression Blend 2
- Electric Rain Zam 3D.

#### Server:

- Microsoft Internet Information Services 6
- Microsoft SQL Server 2005

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We were inspired by some of our seniors at Informatics ITB who took part in the Imagine Cup last year. One of them even won the last year's Imagine Cup Indonesia. We chose the Software Design competition because we think that we have the most ability in that field.

What has been your favorite part of the Imagine Cup competition thus far?

This competition is fun and we think that the prize is great.

#### How did you come up with your idea?

We brainstormed many possible ideas. One of us finally came up with an idea that one of the critical problems about education in Indonesia is illiteracy. To solve this problem, we need cheap technology and that's why we use the Multipoint technology from Microsoft as it enables multiple users to be on only one computer.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We won't only make ABC into a business for ourselves, but we will also realize this for humanity.

What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to winning this competition, hopefully.





### Ireland

### Team inGest



**Team Members:** 

Daniel Kelly Cathal Coffey Eric McClean Mark Clerkin

### **Title of Project:**

Signal-Sign Language Learning Environment

### **Project Overview:**

We are developing a software solution aimed at educating people in the skill of sign language. We feel such a solution would greatly benefit the deaf community by providing relatives, friends and colleagues of deaf people an accessible means of learning sign language.

### Technology/software used:

We are using the latest technologies available from the Microsoft .NET 3.0 Framework including Windows Communication foundation and Windows Presentation Foundation as well as Microsoft Visual Studio 2005 Professional, DirectX, Silverlight, Expression Blend and Expression Web.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

Early in the year, Liam Cronin from Microsoft Ireland came to the University and gave a very inspiring talk about the Imagine Cup competitions. We are all software engineering students so the Software Design invitational was the obvious choice as it covers a wide range of disciplines from software development, user interface design and Web services to poster design and presentation skills.

### What has been your favorite part of the Imagine Cup competition thus far?

For us, the best part so far was taking part in the Irish finals at Microsoft Ireland in Dublin and then coming first. It was an amazing day. We also had lots of fun making the promotional video for Second Life.

### How did you come up with your idea?

We imagined how difficult it must be for someone who relies on sign language to communicate effectively with someone who doesn't know any sign language. Then we tried to come up with ideas for a software solution to this problem. We had some experience with motion capture, computer vision analysis, DirectX programming and 3D character animation so we put these skills together to develop Signal.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We are all going to continue our studies at NUI Maynooth. We would love to develop Signal further and make it into a business. We are actively looking for feedback from deaf organizations and technology experts to ascertain the economic viability of our solution.

### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to meeting the other teams from around the world and seeing the other projects being developed. We are also looking forward to seeing Seoul and presenting our software during the competition.

And finding out what the Guinness is like in South Korea!!





### Italy

### Dattebayo



**Team Members:** 

Carlo Alberto Boano Alessandro Cartura Davide Benato Melissa Veglio Mentor: Giorgio Sardo

### **Title of Project:**

Yourself

### **Project Overview:**

Our project aims to provide a method for analyzing the characteristics of each student like personal potential, difficulties or aptitudes and let consequently teachers evaluate the students' result in another light, allowing the family to participate in the learning process, while seeking possible solutions, so that students can be assisted in a personalized manner, properly understood and assisted in surmounting their difficulties. The students' education will not be improved in the number of notions learned or a greater amount of knowledge imparted, but in the sense of a better quality of learning.

### Technology/software used:

- Visual Studio 2008 Beta 1
- Microsoft Expression Suite
- Microsoft Silverlight
- Microsoft.NET Framework 3.5
- Windows Presentation Foundation
- Windows Communication Foundation
- SQL Server 2005 Enterprise Edition
- Tablet PC
- Wacom Pen Tablet

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We are all really interested in the computer world and programming with Visual Studio .NET, so when we heard about the competition we immediately entered, in order to improve our skills, to test our abilities, and to be able to compare our ideas with other students.

### What has been your favorite part of the Imagine Cup competition thus far?

Without any doubts the possibility to meet new people and discuss with them our ideas, because even if Imagine Cup is a competition, the atmosphere is friendly and gives us the opportunity to exchange ideas and improve our knowledge and experience, not only at programming level.

### How did you come up with your idea?

Our idea came up when showing our handwriting to a graphologist we had our complete profile (way of thinking, behaviors, habitudes and aptitudes) described in a really detailed way by her that never meet us before.

Immediately we felt extremely curious on this subject and we became interested in how we could apply graphology to technology in order to solve the problem expressed in the Imagine Cup theme of this year. The evidence that this experimental science actually works and see it in our program results has been without any doubts a further stimulus to realize the dream of a better education. In our past experiences in this competition we have always tried to improve the quality of life, because that's for us what technology should aim for.

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

After the Imagine Cup finals we would really like to evolve and complete the application, studying deeper all the other learning disturbs that can be integrated in. We are sure that the easiness of extending our software (obtained by means of plugins) will be revealed as a key point in the commercial aspect, both concerning education and all the other fields covered by graphology.

#### What are you most looking forward to about the worldwide finals in South Korea?

First of all we think that this will be a fantastic experience, to improve our knowledge, but not only. Since this is our first experience at world finals, we are anxious to know more about the projects of all countries all over the world and to meet other cultures, people, ways of thinking, all in the best atmosphere that can be offered: a friendly student competition.





### Jamaica ICAD

Central America and Caribbean Region



#### **Team Members:**

Imran Allie Conroy Smith Ayson Baxter Damion Mitchell

### **Title of Project:**

CADI

### **Project Overview:**

CADI is an innovative e-Learning solution which will enhance the delivery of education and extend the learning experience beyond the confines of a physical classroom. This is done by creating a centralized learning environment that connects teachers, students, and resources. Imagine a class with multiple students from various geographic locations who speak different languages, all conversing together effortlessly. CADI facilitates collaboration and distance education that transcends language barriers by allowing individuals to seamlessly communicate and share messages, course notes, and other text based material regardless of the language of origin. CADI also provides educators and students with a plethora of practical tools which will have significant impact on distance education and academia in general. This feature rich solution is poised to equip today's generation for tomorrow's possibilities.

### Technology/software used:

#### Servers

- Windows Server 2005
- SQL Server 2005
- Developmental tools
- Visual Studio .NET 2005 Edition
- Microsoft.NET Framework SDK

#### Other Technologies

- ADO.NET, ASP.NET
- XML , ASP.NET AJAX Framework
- C#, VB.NET
- Microsoft.NET Framework 2.0/3.0
- TCP/IP Sockets

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We were inspired to enter because we saw this as an opportunity to be part of a competition that promotes technology and publicizes the talents of young aspiring software developers from around the world. This was further substantiated by the success of the team from our university that represented the region in 2005 and their experiences from the world finals in Japan.

### What has been your favorite part of the Imagine Cup competition thus far?

Our favorite part of the competition thus far was after months of ardent and passionate development? being announced as winners of the Caribbean and Central America region.

### How did you come up with your idea?

We knew that we needed to develop a solution that was innovative, and practical as well as germane to the theme of education. After much brainstorming and extensive research into what education is like to today, we conceptualized and laid out our vision of a solution that would be highly beneficial and have a significant impact on academia.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We plan to bring our newly gained knowledge and experience to the business world as we seek to enrich our country's technology sector. We will definitely be doing further development, and refinement of some of the features associated with CADI, hence, embarking on a business venture. It is our intent to do a pilot run at our university (NCU) prior to expanding to other institutions in the region.

### What are you most looking forward to about the worldwide finals in South Korea?

We are excited about traveling to another part of the world, and being ambassadors for Jamaica. We are looking forward to being able to meet new people and learn about other cultures, as well as the prospect of building a network of programming friends from around the globe.





### Japan

### Team Someday

### **Team Members:**



Osamu Shimoda Hironori Sakamoto Jun Ohwada Kana Maruyama

Title of Project:

### **Project Overview:**

We believe that it is very important to broaden horizons and to know many various opinions or ideas, especially for students. We also think that it is important to be aware of what you know and what you don't know.

Recent researches show that the learning process starts with having an interest in or being aware of new ideas, different opinions etc., and we agreed with this. This is the main reason why we chose this idea.

Our system will give students opportunities of being aware of themselves, others, and the world through their notebooks, because taking notes is one of the most fundamental and natural actions for students in classes. To achieve the goal, we adopted latest handwriting transmitting and recognizing technologies. We also developed a notable knowledge-network viewer.

Students, then, can review their classes effectively with our system, and can see various ideas and relationships about what they learned in the classes.

### **Technology/software used:**

- Microsoft.NET Framework 3.0 (WPF)
- ASP.NET 2.0
- Visual Studio 2005
- Expression Blend
- SQL Server 2005
- Digital pen

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

One day on October 2006, a local Microsoft representative came to our university and promoted the Imagine Cup for an exercise class. This class had a goal to design and develop the whole system by ourselves, and also had a goal to participate with the system in the Imagine Cup.

The promotion impressed us and we thought Software Design division is the most exciting division because it has a biggest scale in the contest. Then we decided to participate in the class and the Imagine Cup.

### What has been your favorite part of the Imagine Cup competition thus far?

We can introduce our thought, idea and passion to the people all over the world through the Imagine Cup. It is a great opportunity for us. In addition, we can meet many friends from all over the world and this is very exciting.

### How did you come up with your idea?

We surveyed many existing systems first. As knew much about current educational systems, we found that there are many, many learning management systems and attractive teaching materials already. Then we thought that we have to create not a material but a platform.

We discussed a question "what is the most fundamental thing in education?" many times, and then noticed the importance of the first step, or 'Awareness', in education. So we focused on the point and developed our idea.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We are currently not planning to make our system into a business, but we hope that we release this system into public for free.

### What are you most looking forward to about the worldwide finals in South Korea?

We hope to share our many ideas and passion for technology and education with students from all over the world!





Korea

En#605



### **Team Members:**

Lim Chan-kyu Min Kyoung-hoon Lim Byoung-su Jeong Ji-hyeon

# **Title of Project:** Finger Code

### **Project Overview:**

Finger Code is an educational solution for deaf and blind people. They receive a very limited education because of their duplicate impediments. And there's no solution for that. So we made Finger Code.

### **Technology/software used:**

- Microsoft.NET Framework 3.0
- Microsoft.NET Speech 5.3
- C#

Software Design

Visual Studio 2005

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We all belong to the same .NET study group in Sejong Univ., South Korea. And the professor and the seniors of our group recommended that we take part in the Imagine Cup. We chose the Software Design invitational because it's the best fit for our major and interests.

### What has been your favorite part of the Imagine Cup competition thus far?

We've been interested in figuring out technical solutions and how they work together, like software design, Web development and embedded development.

### How did you come up with your idea?

It took us a long time to come up with this idea. One of our team members was involved in a local recovery program for people with disabilities. After we discussed it and touched upon various topics, we discovered that a proper education system for visual and hearing impaired people was needed. We then created our program "Finger Code" to accommodate those people and to reduce the gap between the desire to learn and the ability to learn.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

So far, we don't have any special plans for after the Imagine Cup Final is over. However, we are in the process of reviewing the viably of the program. Even if it doesn't become a business in itself, we wish to make this a dream come true for the visual and hearing impaired.

### What are you most looking forward to about the worldwide finals in South Korea?

There are many things we are looking forward to, but we are particularly interested in other people's work. It is quite intriguing to find out how others will create their programs with the same topic.





### Malaysia EdEx



#### **Team Members:**

Eng Aik Kian Low Khong Teck Ng Tiong Kuan Ooi Boon Sheng

### **Title of Project:** EdEx Platform

### **Project Overview:**

The advancement in information and communication technologies, especially the Internet, promises a world without boundaries and eventually opens up new possibilities of education in the cyber world. The beautiful ideas of distance learning, multimedia materials and education on demand come to mind when we combine ICT and education into the same context. However, things are different when it comes to the real and tangible environment. Can distance learning be effective? Can students study well under unsupervised conditions? Is there enough electronic material for them? How can teachers know more about their students when they are physically far apart?

The EdEx Team provides what we believe to be the best solution to address these problems with the 'EdEx Platform'. The EdEx Platform is a software platform for promoting a better and healthier Education Experience for Internet-based education. Hence, our project's name is, EdEx-Education Experience.

EdEx is a tools suite (or widgets) that contains tools supporting electronic material creation for users without programming knowledge to build highly effective electronic notes and timed examinations. Remote monitoring and communication tools are included to improve interactions between teachers and students. A behavior analyzer monitors a student's electronic examination's behavioral patterns to gather information on how the student actually attempts the questions and analyze the student's understanding of the subject based not just on their actual results, but also from a non-explicit, behavioral aspect. EdEx also provides content levelling, which provides contents to areas (or countries) where electronic contents are in scarcity. Named the EdEx's Content Mapper, it has the ability to filter, translate, add on additional information to any content found globally to suit the local needs, which makes the EdEx Platform, the world's ideal local content provider.

### Technology/software used:

- Microsoft Visual Studio 2005
- Windows Presentation Foundation
- Microsoft Web Services Technology

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

The Microsoft Imagine Cup is the world's premier student technology competition. It allows us to explore our skills, creativity and innovation with technology to actually solve a problem for

the world. It provides us we great exposure and we actually learned a lot throughout the whole competition process.

We choose the Software Design invitational because this is the area we are most familiar with; designing software solutions.

### What has been your favorite part of the Imagine Cup competition thus far?

Our idea tries to address a few problems that we face locally in Malaysia. These problems include a lack of electronic content, and lack of interaction or supervision during distance learning. We truly believe that these problems are not unique to Malaysia but are face by many other countries. The overall idea is to improve the online Education Experience. This is where the idea slowly evolved into building a software platform, and we gradually added toolsets to this platform to make it a more complete solution for online education.

### How did you come up with your idea?

Our idea tries to address a few problems that we face locally in Malaysia. These problems include a lack of electronic content, and lack of interaction or supervision during distance learning. We truly believe that these problems are not unique to Malaysia but are faced by many other countries. The overall idea is to improve the online Education Experience. This is where the idea slowly evolved into building a software platform, and we gradually added toolsets to this platform to make it a more complete solution for online education.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

The EdEx idea came with the focus of how "technology enables a better education for all". Therefore, we have not come out with any business idea or any thought of commercializing it yet. However, during the final in Malaysia and thanks to the judges, we got to know that turning ideas into a business is the best way to actually make the idea get 'Alive'. So as a conclusion, we will definitely be looking into it again from the business perspective once we get back from South Korea and see what we can do with it.

### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to getting more exposure for our ideas and at the same time getting to meet people around the world with the same interests as we have; exploring what technology can bring to the human race.





### Malta Kablujen Digerati

East Mediterranean Region



#### **Team Members:**

Abigail Cauchi Jennifer Fenech Karl Fenech Luana Micallef

### **Title of Project:**

KIKI-A Key to the Integration of Knowledge and Innovation

### **Project Overview:**

KIKI is a fully-integrated system which is easy to use, extensible, and most importantly, promotes a constructive pedagogy and an intuitive way for teachers to make their lessons more interactive, interesting, and collaborative. In our system, a central authority (such as the Education Ministry) maintain a repository to which state-commissioned or commercial developers may upload applications and content. Such applications (which may range over educational games, animated tutorials, homework exercises, and tools such as dictionaries) would be seamlessly incorporated into the system and immediately made available within all classrooms for utilization by teachers and students (through their respective clients). The system also provides a set of features common to all applications, such as MultiPoint functionality (allowing several students to participate simultaneously on a single PC using multiple mice), teacher and student login using virtual cards, real-time progress tracking, and inter-computer communication.

### Technology/software used:

- Microsoft.NET Framework 3.0
- Windows Presentation Foundation
- Windows Communication Foundation
- MultiPoint 1.0
- Live Search Web Service 1.1
- Text-To-Speech Synthesis
- ADO.NET 2.0
- SQL Server 2005
- Multithreading
- Reflection

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

The University of Malta encouraged us to participate in this competition by aligning the requirements of one of our academic projects with the Imagine Cup Software Design invitational. We chose to seize this opportunity since we felt that being creative and practical whilst tackling real-world problems is very motivating in itself. Additionally, we believed that taking part in a competition of such a global scale would be a unique and fulfilling experience.

### What has been your favorite part of the Imagine Cup competition thus far?

We found the whole experience to be very enriching. One landmark event was seeing our system being deployed in a real-life scenario with a classroom of 30 students. The children loved our system, and we found that to be the most rewarding aspect of all. We also enjoyed working together as a team to come up with creative and innovative solutions, and meeting people from various local companies.

### How did you come up with your idea?

Our idea is based on extensive research in teaching methods, especially ones which promote competition and collaboration. We also looked into the obstacles that usually render educational systems ineffective, such as lack of availability of resources. Our aim was to drastically reduce educational costs, facilitate software distribution, and put a spark in the classroom to motivate students to want to learn.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

After finishing our degree course at the University of Malta, we are considering the possibility of taking our project to the next level by starting our own business or, alternatively, by teaming up with one of the several local software development companies who have already expressed an interest in our system.

#### What are you most looking forward to about the worldwide finals in South Korea?

Our highlight would be meeting students from around the world, seeing the innovative solutions other teams came up with, and meeting new people from academia and the industry.





### Mexico

### Wisdom Spice



#### **Team Members:**

Ramiro Berrelleza Pérez Dimitri Limberopulos Fernández Sergio Marcín Gorriño Francisco Sandoval Zazueta

### Title of Project:

Wisdom Spice

### **Project Overview:**

Wisdom Spice adds value to traditional education by empowering students to create and live hands-on experiences. With the help of mobile devices you can capture the experience of solving homework or executing a project, and then share it with your classmates to create a knowledge based community.

Wisdom Spice also helps teachers to create a more interactive class by allowing the interaction of the different recorded student's experiences in a virtual space, the SpiceBoard.

Finally, WisdomSpice allows every student to become a teacher by sharing their knowledge with all of the rest of the class, and every teacher to become a student by acquiring the other student's knowledge. By giving everyone a complete set of applications students from all around the world can collaborate creating a more enriching and fulfilling learning experience.

### Technology/software used:

- Windows Vista
- SQL Server 2005
- C#
- Microsoft.NET Compact Framework
- WPF
- Multipoint
- MCML

- Windows Mobile 5.0
- Visual Studio 2005
- Microsoft.NET Framework
- WCF
- Silverlight
- Windows Media Center
- ASP.NET

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

Competing at the Imagine Cup has given us a great opportunity to test our skills and show the world our concept of how technology will evolve in the near future. We are all computer geeks and adventurers. We love creating software and we cannot help inventing and proposing new things. This contest provides us with the perfect opportunity to do both: create an innovative design, and quench our thirst for adventures with a trip to the mystic lands of Seoul (rumored to be full of wonders)!

### What has been your favorite part of the Imagine Cup competition thus far?

The process of materializing a paper written idea into a functional system is an amazing experience. Nevertheless our favorite part is the thrill of going to South Korea and showing the

world what we're capable of. We've been working for countless sleepless nights (well, not always working) and after beating the finals here in Mexico we can only say that it feels great to have the opportunity to show you something we've put our heart on. Having the wonderful opportunity to indulge in this trip because of the software we created is an experience we can hardly explain.

### How did you come up with your idea?

You can start by picturing yourself in a classroom locked up 8 hours a day in front of a very very boring professor. Then we're sure a million ideas will come to you as how to make your class more enjoyable and fun. But we tried to go further than that. We tried to picture how the classrooms in the future will be, and how the interaction between students and technology will occur. Then it happened, we realized that sometime in the near future education will abandon the physical classroom to become a lifestyle: An endless stream of knowledge in which anyone can submerge anytime, anywhere. And so Wisdom Spice was born...

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We firmly believe in our project and ourselves. The Wisdom Spice idea was born as a result of a bunch of students thinking what could be done to win the Imagine Cup. The Wisdom Spice project was born out of the desire of 4 students to make things happen. And so the Wisdom Spice lifestyle and application will be created out of trust in us. We will continue to work in this project for as long as it is necessary to see people in the world benefit from what we think is a great project.

### What are you most looking forward to about the worldwide finals in South Korea?

What we really want to do is show all the people in the Imagine Cup what we're capable of. We crave to show our project and share our ideas with anyone who's interested. We want to see how far and high we can go.

At the same time the idea of meeting tons of people from different cultures is quite exciting. We're also really thrilled to learn more about Korean culture. Finally we're expecting to live lots of adventures, but mostly to have fun!





### Netherlands i-Connect



### **Team Members:**

Yousef El Dardiry Jan Drenthen Pieter Annemaet

#### **Project Overview:**

As society becomes more and more global, it is important that children start to learn about other cultures at a very young age. I-Connect gives children these opportunities by letting them play simple games with children of their age living thousands of miles away. Using a simple icon language they will be able to communicate with each other, without sharing a common tongue. Furthermore they can see each other using a Web cam.

### Technology/software used:

- Windows Presentation Foundation (WPF)
- Silverlight
- ASP.NET
- Ajax

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

When we first heard about the Imagine Cup we really liked the philosophy behind it. We especially liked that the theme this year is Education. Education is very important for everyone and it is very important that children everywhere around the world receive a proper education. With our participation in the Imagine Cup, we hope to help the world in achieving this. When we thought about how we could best try to help people around the world, the idea of IConnect started. IConnect is an application that fits really well in the Software Design invitational, so the choice of the invitational was quite easy for us.

### What has been your favorite part of the Imagine Cup competition thus far?

The finals in The Netherlands were our favorite part of the Imagine Cup so far. It was very interesting to see what other teams had created.

Everyone thinks differently about education and hence everyone had very different presentations and applications. This is the point where we realized that there is still a lot to do to improve education in the world.

### How did you come up with your idea?

Everyone in our team likes to travel to countries far away. During these trips, we all experienced the big differences in culture. We feel that it is important that young children also learn about these differences in culture. We wanted to show young children something about the world that is more than just a book of pictures. With IConnect we have created an application that also lets children from different parts of the world communicate with each other and play together.

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We plan on improving our application further and also to create more games that children can play. To do this, we would like to make this idea into a business.

We are currently working with the Maarten-Jan, our Microsoft representative, to develop the application further in the Netherlands.

### What are you most looking forward to about the worldwide finals in South Korea?

We're looking forward to meeting people from all over the world. It will be very interesting to talk to people from all kinds of places with all kinds of cultures.

Furthermore, it will be great to see all the ideas of all other teams.





### **New Zealand**

Team Ackermen



#### **Team Members:**

Beverley Rogers Jed Laundry Dacre Denny Jonathan Stichbury

### **Title of Project:**

Gary's Lab

### **Project Overview:**

GL aims to motivate physics students by providing them with an immersive 3D environment in which they are required to solve a physics based problem

Such an environment immediately grabs the students attention, and provides dynamic visualization to the physics problem at hand

### Technology/software used:

- Microsoft XNA game development framework
- AGEIA PhysX physics engine
- Microsoft SQL Server
- Windows Server 2003
- Microsoft DirectPlay
- Visual Studio 2005 Express

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the **Software Design invitational?**

Because we thought there wouldn't be many teams competing in New Zealand (it turns out there were seven) we thought that our odds of getting a trip to South Korea were fair. We chose it also because we were interested in game development, and the chance to merge games with physics education seemed like a great idea!

### What has been your favorite part of the Imagine Cup competition thus far?

Going to Auckland and competing against the other teams.

### How did you come up with your idea?

We wanted to make a game, and use a physics engine, so we combined the two to create software to teach physics

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

Education is typically a hard area to make money from. We've received very positive feedback from both teachers and students so it's possible it could make it to market. This would need consultation with different high schools, and a much larger user test. We'll wait to see what feedback we get from the international community before ascertaining its true market potential

### What are you most looking forward to about the worldwide finals in South Korea?

The opportunity to travel overseas, see the level of competition that the other countries have developed, and really get a huge dose of culture shock. Sailing on the Han River and the trip to Samsung is going to be awesome as well.





### North America Team Omni



#### **Team Members:**

Alfred Leung Brian Thomas Ziyan Zhou Malcolm Smith

### Title of Project:

Omni

### **Project Overview:**

Omni is a language learning system that uses social networking concepts to encourage student collaboration. Omni allows users to meet and communicate with each other in the language they are learning. Integrated into Omni are a set of features designed to help language learners of varying skill levels share information. When students encounter difficulties they can work past them by cooperating with other users. By allowing open access to Omni, other social networks and communication services will be able to use the power of the network to allow their users to communicate across language barriers. One of the greatest obstacles for language students is moving from the classroom to native speaking; Omni seeks to overcome these difficulties using social networking.

### Technology/software used:

- Microsoft ASP.NET 2.0
- Microsoft .NET XML Web Services
- Microsoft SQL Server 2005
- Microsoft Visual Studio 2005 (C#)

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We are all passionate about computer science and software engineering. Entering the Imagine Cup gave us the opportunity to gain experience and test our abilities against those of our peers. Being able to represent North America was at first a distant goal, but the chance that we could earn the freedom to create our own solution to improve education with technology also motivated us.

### What has been your favorite part of the Imagine Cup competition thus far?

Our favorite part of the Imagine Cup so far was getting an invitation from Microsoft to spend a week concentrating on solving a problem in education. We are all very busy with school and our jobs, so getting the opportunity to get together and concentrate all of our time for a week on solving a meaningful problem with technology was an incredible experience.

### How did you come up with your idea?

There were two key factors that led us to our idea. The first is how popular social networking Web sites are. Millions of students (including most all of our friends) use them every day. We wanted to find a way to take the excitement surrounding these massive student communities and apply it to educational technology. The second key factor was our knowledge of the struggles faced by students learning foreign languages. Meeting people and helping them with language is one of the most effective ways to learn a new language. We see social networks as a natural solution for helping students learn and communicate.

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

If completed and publicly released, our project has the real potential to help students all over the world learn languages. We are currently focused on being successful at the world finals, but are excited at the possibility of opening up our network for the public to benefit from.

### What are you most looking forward to about the worldwide finals in South Korea?

We are most looking forward to seeing what students all across the world have been working on. As students, we know many of the challenges facing education. Seeing so many talented people from across the globe gathering together to show how technology can solve these problems will make South Korea a once in a lifetime experience for us all.



Design

Software



### Norway

### Team Avanade/NITH



#### **Team Members:**

Ruben O Larsen Anders Bondehagen Øyvind Thomassen Johan Grønstad

### Title of Project:

Homework HelpO'matic

### **Project Overview:**

Homework HelpO'matic is a Web-based automated homework help application. It is targeted for students in middle and high school.

The students write their assignment as normal. Each time he or she writes what they know about the subject, the student uploads the document to Homework HelpO matic. Our program then searches through the document to find matches with predefined keywords. Based on number of matches, the system will give the students hints, which they can use to improve their assignment.

This upload is done through a standalone client, a plug-in to existing learning management systems (LMS), or through a 3rd party application that implements the HelpO'matic Service (SOA). The system also provides a back office, where you can create the assignments and get reports.

### Technology/software used:

Technology: Microsoft.NET, Web services, WPF

Software: Visual Studio 2005 Team Suite, Team Foundation Server, MS SQL 2005 Enterprise Server with reporting services, Expression Web Blend, SharePoint Designer, Adobe CS3.

#### **About Your Team:**

Our team has four members from NITH (Norwegian School of Information Technology), where three of us are beginning the third year of a bachelor's degree and the fourth one is starting his second year. Our various backgrounds and experiences make for interesting and innovative solutions.

- Ruben O Larsen (Team Captain): has developed Web pages and applications since 2002. He will finish his bachelor degree of Web communications in 2008. He is vice chairman of NITH's media committee and chairman of Microsoft Student Community at NITH.
- Øyvind Thomassen (Team Coordinator): has a bachelor's degree in Information Technology from Bodø University College(HBO). He is starting his third year of game programming at NITH, and also works part time with Web development. He hopes to work in the game industry in the near future, also works part time with Web development. He hopes to work in the game industry in the near future.

- Johan Grønstad (Code monkey): has a degree as a network administrator from Næringsakademiet in Bodø. He is starting his third year of a Bachelor's degree in IT with a specialization in Web communication at NITH, which he will complete in 2008.
- Anders Bondehagen (Design): is beginning his second year of a Bachelors degree in Web programming and is the leader of the student council at NITH.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We had a presentation in the Microsoft student Community about the Imagine Cup. We were surprised that no students from NITH had ever competed in the Software Design category before. We were inspired by the presentation and came up with many initial concepts for the theme, so we wanted to make a contribution. NITH focuses on software engineering, making software design a natural choice.

### What has been your favorite part of the Imagine Cup competition thus far?

Being able to meet the other contestants in the Norwegian finals and see their great solutions.

### How did you come up with your idea?

As a group we have experienced a wide variety of educational challenges. We tried to define a small approachable subset, in the end we chose to focus on homework.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

First we plan to finish our bachelor's degrees. We have yet to decide whether we will develop our idea into a business. If we get the opportunity, we would love to take this project further.

What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to meeting the other teams and to visiting Seoul.





### Pakistan Avri



Team Members: Ahmad Humayun Ozair Muazzam

Tayyab Javed Yahya A. Cheema

### **Title of Project:**

AVRiL-Automated Video Recording of Lectures

### **Project Overview:**

Think of AVRiL as a complete camera and direction crew in your classroom, just there to record whatever you learn. Imagine this becoming possible without the presence of the cameramen or the director who steal the lecture of its natural atmosphere in addition to being expensive. All this is made possible by machines programmed to see and understand a classroom environment. Think of AVRiL as a production studio inside your lecture hall, with nothing but unobtrusive machines controlling cameras. The system excels in making high quality video through an automated, yet a customizable director working on heuristics to mimic an actual direction crew.

AVRIL can record the classroom environment not only in the form of an intelligently directed video, but also through presentation slides and by extracting information from the chalkboard. During playback of a certain recorded lecture, AVRIL makes sure that the viewer only sees the pertinent parts of the board or a referred slide, rather than creating a barrage of confusing information. Now imagine how useful these recordings could be for people who cannot afford quality education in the premiere universities of the world. The system can also act as the keystone to any distance learning program where people can watch and annotate these recordings for the use of others.

Picture the last day before your exam when you want to recall all the relevant topics. Think of AVRiL as a complete replacement to your notes when you need to study or simply recall something. In today's global world with a heightened sense of competition, getting the best education is vital for understanding the world around us and what better way than using technology to get there. Our innovative solution opens a possibility to dream of enabling education for all, through a quality learning environment just at a click of a button.

### **Technology/software used:**

To develop a *director*, we have built a system which can be programmed to create a quality recording. It is modularized in way to make plugging-in different direction scripts possible to suit different situations. This was done after talking to directors, analyzing professionally recorded lectures, and thinking on how cinematography rules work We employ tried and tested computer vision techniques in order to track the lecturer, track people in the audience, and extract information from the board.

All computer vision algorithms have been implemented using the OpenCV library. Our User Interfaces have been built using Microsoft Expression Design, and we plan to use the Microsoft

Expression product range with Microsoft Silverlight to develop a unique Web service. All development has been done using Microsoft Visual Studio .NET.

#### **About Your Team:**

All four of us are final year students of BSc at Lahore University of Management Science. We all are very enthusiastic, hard-working and motivated individuals. As a whole team, we hold a certain chemistry which glues us together and pushes us to innovate.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

Because it is simply the biggest competition for people of our age in the field of computer science. It is like the global Olympics of computer systems.

We choose the Software Design invitational cause this is the most comprehensive category and is supposed to be the holy grail competition of Imagine Cup.

### What has been your favourite part of the Imagine Cup competition thus far?

When we won the Imagine Cup Pakistan finals in Karachi. However we all hope that the favourite part of the Imagine Cup has yet to come!

### How did you come up with your idea?

We were looking for cool idea for our senior project, and all of us were pretty excited to do something big. We looked at a bunch of ideas that involved computer vision or GIS, but nothing really seemed to fit the bill. The first time we came up with this idea, we thought it was near impossible to do, but like all other good ideas, this one too just popped out of our imagination. Looking back, we find it amusing that at the time we discussed the idea with our mentor, he already was thinking of something similar after having experienced expensive professional recordings for the workshops at our university. We were also motivated by this idea as we knew the theme for Imagine Cup this time was education. We finally jumped into it and never looked back again.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We plan to take our system further; to implement new ideas, and to make it work for other similar environments, like board-room conferences or talk-shows. We plan to build a business on top of it where we envision providing the system to the top universities in the world. We would like to see a direct impact of AVRiL on the developing countries, as education in the third world still remains the biggest challenge.

### What are you most looking forward to about the worldwide finals in South Korea?

All four of us are looking forward to meeting the participants from all around the world and seeing what they have built. It is always amazing to see people bubbling with innovative ideas to solve a problem in their own unique way. It is also heartening when people from all corners of the world can put their heads together and solve any fundamental issue faced today. We are also looking forward to see technology being used in interesting ways. It is not uncommon at such competitions to stumble and think that why didn t anyone think of the use of technology in such a brilliant way before.

And of course, like anyone, we are excited about sight-seeing Seoul, enjoying the stay at WalkerHill, making new friends and experiencing the most-wired country in the world.



Design

Software



### **Philippines**

### **CROSS+LINKED**

# A Comment of the comm

### **Team Members:**

Franchere S. Chan Lance Edward Lim Mary Ann Ngo Ryan Richie Ong

Mentor: Dr. Jose Lloyd Espiritu

### **Title of Project:**

Internet Sieve for Students Teachers and Researchers (IS STAR) Formerly IE STAR

### **Project Overview:**

As the Internet grows and becomes accessible to more students and researchers worldwide, the amount of available information online becomes increasingly more complex and difficult to manage. While this complexity makes it easier to gather and collect information, it also makes it increasingly difficult for the user to find what he/she wants and organize the information in the most appropriate way possible.

Internet Sieve for Students Teachers and Researchers (IS STAR) aims to address this problem by providing a natural interface for browsing the Internet and for collecting and organizing information gleaned from different Web sources. More than just a Web tool that would help you explore the Internet for useful information, it is a natural sieve that would help you filter the bad information and leave you with only the good ones. A student who needs to come up with a research paper on a given topic or subject, for instance, can then browse the Internet using the system, select those parts of Web documents that he/she needs, and save them for reorganization, manipulation, evaluation, and later viewing. Instead of the usual practice of copying and pasting separate pieces of information into a text editor or word processor, annotating each piece of information, keeping track of the sources and relevance rating of each piece of information, and mentally noting which piece of information is directly and indirectly related to which other piece of information, a user of the system can graphically manipulate, revise, and rate each piece of information, even organizing them into piles for easier and quicker integration later on, all without the inconvenience of having to open a separate program and to switch between programs while working. As a result, the system allows users to build up new ideas or concepts using previous and current information, thus promoting a constructivist way of learning.

The proposed system is targeted at high school and college students and professional researchers worldwide. It aims to encourage collaboration among users and to promote critical thinking and effective analysis of gathered data by individual users.

#### Technology/software used:

### Servers

- Microsoft Access
- Development Tools
- Visual Studio 2005 Express Edition

#### Other Technologies

- Microsoft.NET Framework 2.0
- Microsoft Visual C#

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We joined the Imagine Cup because of its theme, "Imagine a world where technology enables a better education for all". We believe that it is a great opportunity for us to maximize our technical skills and expertise and put them to good use by creating an application that is not only innovative but would make a difference to society. Also, we saw it as a fun challenge to take on and we wanted to see how well we

will fared against the world's brightest and most innovative young minds.

Things that inspire each team member:

The opportunity to make a difference. - Franchere

The satisfaction of creating innovative solutions to the world's problems. -Lance

Looking at how such a concept can become a reality, it moves me to think I can use it, so that I can use it myself. -Ryan

A passion for excellence and a desire to innovate user-friendly software applications that impact a lot of people deeply. -Mary Ann

#### What has been your favorite part of the Imagine Cup competition thus far?

Our favorite part is learning so much from this competition. We learned so much from each other and especially from our mentor. We realized that for technology to be really effective in education, it should not do the thinking for the user/student. For example it should help the student gather or share resources and information, but it must never do the thinking or analyzing for the student. Else, there would not be any learning anymore in the part of the student, and the student would cease to use one of his most important assets as a human being which is his mind.

#### How did you come up with your idea?

We talked with our mentor, Dr. Espiritu, and we realized that we would like to come up with a tool that would help students and researchers organize, evaluate, and analyze information. Another key point we considered is that as technology advances especially in terms of hard disk spaces which are becoming bigger, more information can now be stored. However, the problem then comes in the retrieval part. How do I retrieve my information effectively? After all, information is useless if I am able to use it when I need it.

Although most of us would not admit it, we also realized that it is a fact that most people are really unorganized when storing information that after a period of time, they forget where they actually stored a certain important piece of information. They simply remember bits about what the information contains like for example, it contains information about Global Warming effects, or that it contains information which dates back to May 2006.

We therefore visualized ourselves as real users who had real needs with regards to organizing and annotating research materials. Using the virtual scenarios that we came up with, we picked out the most important functionalities that the program should be able to do to best aid the student/researcher in his/her research activities. These functionalities include those that we've developed, such as saving nuggets or pieces of textual and non-textual (images, sounds, movies) information, together with the source of the information and the user's rating and comments; organizing these nuggets of information into pouches and knapsacks for easier viewing and organization; collaborating with other students/researchers and sharing pouches and knapsacks of information with them; and viewing all of your nuggets in one visual concept map for easier analysis and evaluation.

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

After the Imagine Cup finals, we plan to continue our studies although some of us are already graduating. As of now, we have no plans of making it into a business. However, if the opportunity does come and resources are available to implement the idea then why not.

#### What are you most looking forward to about the worldwide finals in South Korea?

Of course, having a great time in South Korea is part of what we are looking forward to. However, on top of that, we want to make the most of the opportunity to show the world that we Filipinos have the technical genius and the sincere desire to enable better education for all. In the process we hope to bring glory to our country and to God!





### Poland

### **InPUT**



#### Team members:

Szymon Wybrański Michał Zygmunt Michał Taranus Marek Wronowski

### Title of Project :

Onespace

### **Project Overview:**

Onespace enables a group of users to work on the single project at the same time. It provides audio and video communication and enables one to switch between different users' desktops as easy as switching between applications. Onespace allows students to switch to their teacher's desktop to follow their teacher's lessons. The same teacher can track students' progress simultaneously displaying students' desktops on his or her monitor. Thanks to the Microsoft MultiPoint feature, all users sharing the same desktop can use their own mouse to collaborate in class. With Onespace, you can also drag your running application window out of your screen so it appears on your friends desktop. Parents could even use Onespace while on a business trip to help their children with homework. Onespace joins people into groups, and is a perfect solution not only for educational or business applications, but for joining people with common interests and problems as well. Users who are a part of a community can cooperate, learn and help one another. You are not limited by your location or language skills. Onespace will automatically translate your conversation into your desired language. It is not a closed solution, which means you can use Onespace with any existing application.

### Technology/software used:

Microsoft MultiPoint

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design Invitational?

The Imagine Cup is a great way to check our programming skills and the place where our ideas can turn into real products. It is also a great adventure where we can make friends who have the same passion for technology as we do.

### What has been your favorite part of the Imagine Cup competition thus far?

Our favorite part of Software Design competition was getting our idea. We love brainstorming, and that was the way we started our meetings. Another fun part is learning new technologies. Microsoft is developing so many new technologies every year that even though we took part in the Imagine Cup last year, we had to learn a lot of new technologies this year.

Of course taking part in the Imagine Cup competition has had a big impact on our lives, and it also inspires us to create new amazing projects.

### How did you come up with your idea?

Our idea came up in one of our brainstorming sessions. It is actually a project that each of us personally need. We believe that we should be the users of each of our projects, so we can better evaluate its usefulness.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

Yes, we plan on making our idea into a business as soon as possible. We think it could have a huge impact on communication, collaboration, and creative problem solving, improving daily educational skills. We have marketing materials like posters, leaflets and more developed, so we are already preparing to start our business.

### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to meeting people from all over the world. The Microsoft Imagine Cup differs from other competitions in many aspects. First of all it is the biggest international competition, in which you can compete not only with people from your country but with people from all over the world. The vast diversity of interesting categories enables you to select a competition in which you are the strongest. We can both create a very good software product, and we can also make our ideas into a real product and cooperate with people from business and important international companies.





### Portugal The Chefs



### **Team Members:**

Pedro Faleiro José Santos Rui Milagaia

### Title of Project:

Digital Kitchen Assistant (DKA)

### **Project Overview:**

The Digital Kitchen Assistant (DKA) is a helpful kitchen system that guides the user, in the adventure of cooking, in a safe manner, stimulating learning in a practical, creative and fun experience.

Its objective is to be a multifaceted platform that combines practical, educational and playful elements enabling the user to learn in an active way instead of just being a passive knowledge absorber. It turns on the thirst for knowledge by stimulating curiosity and offering information on various areas such as gastronomy, nutrition, history, geography and much more. The user is able to search for a recipe by numerous criteria like time to cook, included or excluded ingredients and tools and more. More than just being a recipe compilation, DKA is a knowledge repository that intends to stimulate curiosity through the cooking process by having sub-menus available with related information.

With sensorial information DKA is able to guide the user through his experience to a better chance of good results. DKA is one step further in the smart kitchen solution.

DKA provides the user with a fun learning experience in the kitchen and tries to convert him into a real chef.

### **Technology/software used:**

- Microsoft.NET 3.5 (WPF, WCF, SpeechFX)
- Visual Studio Codename "Orcas"
- Microsoft Expression Blend 2 Preview
- Microsoft SQL Server 2005
- IIS 7.0
- Microsoft.NET MicroFramework

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

The challenge of an international innovation competition. The Software Design invitational was the most challenging of all categories due to its dimension and demand.

What has been your favorite part of the Imagine Cup competition thus far? The creativity process.

### How did you come up with your idea?

We were asked if we knew how to cook. The answer was no and as engineers, instead of actually learning how, we devised a system that could teach us. We haven't had time to use it vet.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

Yes, after the competition comes the, even greater, challenge that is bringing the concept to the harshest of juries, the people.

What are you most looking forward to about the worldwide finals in South Korea? Getting to know the other contestants from all over the world.

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### Romania 921UBB



**Team Members:** 

Paul-Valentin Borza Daniel-Constantin Ghiţă Mihai Dan Nadăş Ovidiu Sabou

### Title of Project:

KnowledgeSense

### **Project Overview:**

KnowledgeSense is the solution for a better education for all. The project delivers educational information in a natural and seamless way, powered by a highly accessible user interface, a natural language processing engine and a complete set of platforms from which the solution can be reached.

Through KnowledgeSense self education meets a new standard that will help children, grownups and disabled people develop their knowledge.

### Technology/software used:

- Microsoft.NET Framework 3.0
- Windows Vista
- SQL Server 2005
- Office Communications Server 2007 Speech Server
- Princeton WordNet
- Stanford Parser

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We are a group of students that have two important things in common: the urge for competition and a native passion for software development. Imagine Cup appeared as the perfect environment where these two "addictions" could be satisfied and this is why we entered the contest.

### What has been your favorite part of the Imagine Cup competition thus far?

The Imagine Cup experience constantly develops favorite parts, but because we have to pick a certain one we can all agree that the moment when we found an idea that deserves all the hard work in the world just to see it "alive", was definitely our favorite part so far.

### How did you come up with your idea?

We invested a lot of brainstorming time into the idea that brought KnowledgeSense to life. We tried different approaches, but in the end we thought of a solution that will satisfy our expectances as users and not as developers, because we think of ourselves as a very fastidious group of users.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

When we thought of the idea that brought KnowledgeSense to life we had the commercial view in sight and that is why we definitely plan to continue the project after the finals, and of course making it into business.

### What are you most looking forward to about the worldwide finals in South Korea?

We expect to prove the quality of our solution as we imagined it and of course to represent a perfect candidate for the great prize, because that is what competition is all about.





### Russia

m-Team



**Team Members:** 

Constantin Gorsky Michael Gurenkov Constantin Kichinsky Andrew Sverdlov

### **Title of Project:**

Mapedia

### **Project Overview:**

Imagine that all the knowledge that you have been taught ever is clearly arranged by your own hands! Do you orient yourself in your own library freely? Mapedia lets you build a library. But this is not just a collection of disjointed pieces: they all are linked in a network. You can easily travel through it. This is your personal knowledge space and you can create it with the speed of think on your fingertips! Isn't this impressive?

Knowledge is represented using the mind map technology, so it is more associative and is more like the human thought. This is really the most convenient and effective way of knowledge representation. Different maps may be linked into simple semantic networks using ontologies, thus opening the doors from one discipline to another.

Ontology could make ideas translation from one presentation to another with one click: just click to go to a different language or graphic symbol or picture.

You can also share maps with your friends and create mind maps together with them in a real time. Collective work, collaboration, synergies are all in Mapedia!

You can take the advantage of the whole world's knowledge maps, add them to your collection, and use public images and video. And all this is available from everywhere.

#### Technology/software used:

- Microsoft.NET 3.0 (Microsoft.NET 2.0 Core, WPF, WCF)
- ASP.NET
- Microsoft SilverLight
- Microsoft XNA
- Microsoft Virtual Server 2005
- Microsoft Expression Blend
- Microsoft SQL Server 2005
- SVN

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We are young and energetic. The Microsoft Imagine Cup is a cool contest with a lot of drive and fun! It was interesting to take part together as one team. We had an excellent idea and we want to show it to the world. And Software Design is a part of our lifestyle.

### What has been your favorite part of the Imagine Cup competition thus far?

Our favorite part is Software Design and, of course, all the drive, collective work, the ability to express ideas into real products too.

### How did you come up with your idea?

We have made a sketch of it on the pizza box. We want to make a simple solution for convenient and efficient work with information and knowledge that is available to everyone.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

After Imagine Cup we plan on further designing and developing. You know, Imagine Cup is just the beginning... something like a springboard to the future.

### What are you most looking forward to about the worldwide finals in South Korea?

We dream of showing our ideas to the world, of sending our message. We want to surprise and impress the hearts of viewers, and inspire them to new accomplishments.





### Saudi Arabia SmartPal



**Team Members** 

Salman Rahmat Ali Al-Ansari Abdirahman Mohammad Abdi Daud Mohammad AbdulRahman Ali AlShehri

### Title of the Project:

SmartPal

#### **Brief Overview of SmartPal:**

The concept is designed to work as an advanced artificial intelligent teacher that acquires information in any field via multiple sources including the Internet and then answer any question or query in that field in different languages and via normal human conversation (sound), video presentation (animation) or text representation (writing). SmartPal can also consult its peers available online, if the topic of the question is new. These peers can share their brains as well. Moreover, Because of the flexible design of SmartPal, its brain can be enhanced and SmartPal is available in mobiles and as real robots. SmartPal idea could be applied in several fields including academic, as a teacher assistant, and business, as a Smart Marketer.

SmartPal has some parts:

- SmartPal Brain and Knowledge Generator: This makes the core engine of SmartPal that can understand various sources and built the brain.
- SmartPal MAS (Multi-Agent System): The infrastructure is built to ease and automate the communication between various SmartPals spread around the globe.
- Enhanced Interface and Interaction: Consists of 3D user interface with the ability to do natural language conversation in various languages using voice together with the aid of multimedia.
- SmartPal SDK (Software Development Kit): To make SmartPal extensible and to provide tools for users and developers.

### **Technologies and Software Used:**

SmartPal uses a vast range of technologies including:

Microsoft Expression Blend, ZAM3D, xAIML (Extended Artificial Intelligence Markup Language) which is our own extension to AIML and which is the native language understandable by

SmartPal brain, ReversedAIML, Voice Recognition and Text-to-Speech together with SAPI (Speech API), Machine Translation, NLP (Natural Language Processing), WordNet which contains definition and structure of English words, Visual Studio Orcas, Microsoft MultiPoint, Microsoft Robotics Studio, Microsoft Visio, Enterprise Architect, ADO.NET, SQL Server 2005, C#, XML Web Services, WPF, Microsoft.NET framework 3.5 Beta and Microsoft.NET Compact Framework.

Hardware: Pocket PC to deploy SmartPal compact version and a robot e.g. Lego Mindstorm NXT. OS Systems used are: Windows XP SP2 and Windows Vista. Moreover, the power of design patterns is also utilized and an SDK for the system is provided.

### What inspired you to enter Microsoft Imagine Cup and why did you choose Software Design Invitational?

It is extremely useful to get hands on experience in Microsoft's latest technologies, to taste the joy of challenge and to meet professionals from all around the world who share our enthusiasm and passion for innovation. Also, it is our job to be part of the community and to solve its critical problems and the Imagine Cup gave us the chance to make all that happen.

### What has been your favorite part of the Imagine Cup competition so far?

The Imagine Cup is a very exciting event. However, the opportunity to apply innovative ideas and explore new horizons in education beyond the traditional ways were among the most important aspects.

### How did you come up with your ideas?

The idea of SmartPal was developed gradually and it took us about a month to finalize the idea. We had several brain storming sessions, asked people in educational field for input and interviewed many people about the problems in education. Eventually several innovative parts appeared, and by linking all these parts in a new way, the idea of SmartPal was finalized.





### Serbia

**SMOR Team** 



#### **Team Members:**

Neven Tubić Milan Stojić Ivan Vujić Sava Čajetinac

### **Title of Project:**

DriveON

### **Project Overview:**

Our project tries to take advantage of a virtual environment to teach students how to drive cars better. The student is sitting in a simulator, completely safe, and instructor can put him in rather dangerous situations, like driving on open road when it is raining (or snowing) and forcing him to overtake a long truck.

### **Technology/software used:**

- Microsoft.NET 3.0
- DirectX
- standard graphic and modelling tools
- WCF
- SilverLight

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

Because we had good ideas. We are enthusiasts, competitive, willing to give our best for success of this project. We choose SD because it embraces all disciplines.

### What has been your favorite part of the Imagine Cup competition thus far?

Presentations! In the Serbia finals we had really serious competitors with good ideas and great presentations.

### How did you come up with your idea?

We came up with the idea by realizing that we did not have good enough car driving training training, so we want to make it better.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

Yes. We are still trying to connect and contact to the right people. Making of detailed business plan is in progress, but we are a bit inexperienced in that area-there is quite a work ahead of us.

### What are you most looking forward to about the worldwide finals in South Korea?

To see and meet other teams and their projects. And of course-to see South Korea!





### Singapore JonShonRonVon





#### **Team Members:**

Jonathan Samraj Shawn Ko Shi Qi Teck Chau

### **Title of Project:**

Bolésis-Borderless Learning System

### **Project Overview:**

The world is indeed advancing technologically as we progress into the 21<sup>st</sup> century. It is unfortunate that the pace of advancement of education across the globe is trailing far behind that of technology. The truth is that a wealth of educational resources is available out there that the average person is simply unable to access. This is due, in part, to the fact that educational institutions had no means of sharing the resources they utilised. Even if learners have access to such material, additional barriers exists that hinder the learner from effectively absorbing the material they have.

The Borderless Learning System (Bolésis) is designed to enable the widespread adoption of shared learning resources that was previously unavailable to the masses. We envision a solution that pools available educational resources together and presents it to the learner in a manner that increases their efficiency of learning. This will be accomplished through features such as an inbuilt context sensitive help and background translation. Simply put, Bol?sis addresses the need of a global platform for distribution of e-Learning resources; an area in which other e-Learning solutions have failed to deliver.

By providing this infrastructure for distribution and absorption of e-learning resources, we can leverage on technology to enable a better education for all.

#### Technology/software used:

- Service Oriented Architecture (SOA) through the use of ASP.NET Web Services
- Microsoft SQL Server 2005 for the back-end database
- VB.NET to develop the client-side Windows Application (using Visual Studio 2005)
- Microsoft Speech API (SAPI) 5.3
- Developed using the Microsoft .NET Framework 2.0

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

Our lecturer approached us and asked if we were interested in participating in the competition, and being passionate about software development ourselves, we thought why not? We realized that this was our opportunity to apply what we have learned in the classroom to a real world problem; bringing about tangible benefits to the world

### What has been your favorite part of the Imagine Cup competition thus far?

The brainstorming of ideas and 'trashing out' of issues is by far the team's favourite part. The many hours we spent on these two activities have proven to be intellectually stimulating and downright fun as we challenge each other's suggestions and ideas; all in the name of creating a solid solution we would be proud to call our own.

### How did you come up with your idea?

Initially, we wanted to do something just for the disabled, more specifically the visually impaired. It is these people who have it the hardest when it comes to learning. But we soon realized that the platform we were developing actually had the potential to become so much more. So after much discussion and brainstorming, we decided that the best position given the time frame and other external factors was to develop the base infrastructure for a global elearning distribution platform that is scalable and could support third party add-ons.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We will be exploring the prospects of getting renown institutions involved in Bolésis and pending the outcome, seek capital investment to allow us to deploy our system on a full-scale basis.

#### What are you most looking forward to about the worldwide finals in South Korea?

We have much to look forward to in regards to interacting with fellow participants from all over the world as well as being exposed to the huge pool of ideas that would enable a better education for all. These would truly give us an enriching and unique learning experience.





### Slovakia

### Caffeine2Code



#### **Team Members:**

Marko Divéky Peter Jurnečka Rudolf Kajan Ľuboš Omelina Mentor: prof. Mária Bieliková

### **Title of Project:**

S.M.I.L.E.: Smart Multipurpose Interactive Learning Environment

### **Project Overview:**

Everyone needs motivation into studying and educating. S.M.I.L.E. enables teachers to easily create three-dimensional, fully interactive and exciting educational games with just one click of a button. Moreover, these games are playable even by handicapped users and adapt to every student's individual level of knowledge.

### Technology/software used:

- Visual C# 2005
- Visual C++ 2005
- Microsoft.NET Framework 3.0
- Microsoft SQL Server 2005
- Microsoft Internet Information Service (IIS) Server 6.0
- XAML
- WPF
- WCF
- Web Services
- Speech SDK 5.3
- SQL Native Clien
- MSXML 6.0
- TGEA

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We had heard of the Imagine Cup competition from our mentor and decided to try out our skills and compete with other teams from all over the world. The Software Design invitational was the most interesting one for us not only because it is the most popular and challenging one, but also because we wanted to put our software design skills to the test.

### What has been your favorite part of the Imagine Cup competition thus far?

The atmosphere and winning the Slovak national round, and thus advancing to South Korea. :)

### How did you come up with your idea?

We surveyed a number of schools, even those that have handicapped students. We found out that students (and not only them) need to be motivated more into studying, and that the majority of today's youths often play video games in their free time. Our idea was to combine the educational potential of today's educational materials with the attractiveness and excitement of popular computer games.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We plan on making our project a sellable software product, since we already have many buying offers from schools, and even the Ministry of Education of the Slovak Republic.

### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to the competition, to meeting other students and making new friends from all over the world, and also to see the beauties of South Korea.





### Slovenia T-Team



#### **Team Members:**

Mario Dietner Alois Paulin Igor Pernek Matej Urbas

### **Title of Project:**

Hotspots

### **Project Overview:**

Hotspots are basically objects within visual media, which are controllable. When we take a picture or a video, all we get is a flat image, which a human does recognize, but the computer does not. The only usage for such a medium is to watch it. We enrich the visual content by giving the user the possibility of defining objects within the picture and of linking more information to them.

Education is most effective when the need for information can be satisfied as it arises. This is where our system steps into action, as it provides an intuitive way of "diving" into information, which image data offers. It's like having a "papa" always on your side, who can give you the right answer as you need it.

You may look at it as some kind of Wikipedia within your videos and pictures. Information within the picture is shared trough a network, extending your photo album into a community system of linked information. Imagine that you open a family picture, in which you can click on your parents to get linked content of them, even content your relatives provide. You could have your entire family-tree intuitively accessible through a single picture of your family on the beach. :-)

### Technology/software used:

We have used an assortment of the latest Microsoft.NET technologies (features of the Microsoft.NET 3.0 libraries such as WPF and WCF).

Also, we have used the interoperability features of the Microsoft.NET framework to better integrate our product with the operating system and some non-managed applications (like for example the Microsoft Office suite).

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

The Imagine Cup is traditionally well placed at our faculty; this is how we came into touch with it. Members from our faculty used to score good results at the world finals, so Imagine Cup became also somehow prestigious to participate in. We chose the SD-category, as it is the most complex and most challenging, but also the most easy one to build a team for, as all our team members are studying on a technical faculty.

What has been your favorite part of the Imagine Cup competition thus far? Definitely the selection of the world finalists. :)

### How did you come up with your idea?

Through brainstorming. We tried to analyze, how people learn, as to get the answer of how to help them. What we realized is, that we learn most efficiently by asking questions, when the demand arouses. The perfect proof for that thesis is the era of childhood-kids tend to ask, when they want to know something and they want their answer immediately to satisfy their curiosity. What we essentially did, was to port the model of the pre-computerised-era-child asking its relatives about the outside world into the 21th century in which nobody has time to answer such elementary questions.

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

To develop Hotspots into a market-ready and profitable solution would consume far too much time and human resources, more than we are able to provide. Our aim at this moment is to build the core infrastructure for Hotspots, which we plan to make publicly available to the open-source community. The concept of Hotspots is groundbreaking and has enormous potential, so we would not be surprised, if someone would "steal" the idea from us and turn it into a profitable killer-application.

### What are you most looking forward to about the worldwide finals in South Korea?

We are eager to meet new exciting people from the broader IT world. We will definitely try to learn from the Imagine Cup experience as much as possible.





### South Africa Team SA



### **Team Members:**

Davide de Caires Claudie Ferreira Grant Lindner Nicholas Goossens

### **Title of Project:** eduCORE

### **Project Overview:**

Our system is a generic education institution management system, primarily intended for the adoption of electronic information management in South African schools. The key focus is to provide an exceptionally flexible and extensible system that allows for the efficient and comprehensive control of the day to day administration aspects of academic institutions and their respective entities.

System functions include: mark entries, academic report generation, automated/manual roll call, bar-coded pupil cards, timetable packing, school demographics and statistical reports with charts, yearly pupil rollover, pupil archive, email and SMS notifications, outward interface to South Africa Government systems (Department of Education), implementation of industry standard security and encryption schemes, as well as management of pupil, parent and staff records. A comprehensive subset of the functional components, such as mark entries, are Webbased; and a completely automated roll call system scans pupils' fingerprints, and promptly sends SMS notifications to respective parents when pupils are late, absent or bunking.

### Technology/software used:

Our system uses a combination of client/server, WEB, and mobile device based applications; 3 Tier Architecture; and is a fully Object Orientated Design. The system makes use of the following technologies: VB.NET, ASP.NET, SQL Server 2005, stored procedures, WEB services, AJAX, salted SHA1 encryption, 3DES encryption, SSL certificates, multithreading, biometrics (fingerprint), SMS notifications, e-mail notifications, JavaScript, CSS, Reporting Services, Crystal Reports, webcam tight link, interfacing with Windows registry, MS Office Word integration, Virtual Earth integration, and export to flat files.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

Our team got involved with Project Firefly at a university level, and we were entered into Imagine Cup from there. We entered the contest because we enjoy challenge, are looking for a platform to demonstrate our skills, and for the Imagine Cup experience.

### What has been your favorite part of the Imagine Cup competition thus far?

Engaging and networking with other students during the national competition has been an unforgettable experience. We also enjoyed the interaction with and exposure from local media, as well as the freedom in using and developing with the latest technologies available.

### How did you come up with your idea?

We realized an opportunity in South Africa (and other African countries) where technology can be used to make a real difference in the management of education institutions (e.g. primary and high schools) and make crucial information available to Government for the first time.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We are investigating a few opportunities and need to assess certain factors, but our definitive goal is to make this a real system and make it into a business.

### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to meeting other students from different countries and seeing their systems, as well as the challenge and experience of competing at an international level.





### **Spain**

SC@UT



#### **Team Members:**

José Luis González Sánchez Cristóbal Espinosa Morente Oscar Pino Morillas

### **Title of Project:** SC@UT

#### **Project Overview:**

Sc@ut is an augmentative and adaptive communication software program with the following objectives: to resolve communication troubles children with autistic spectrum disorders have, by means of the design and development of a communicator adapted to these people; and to provide a personalized and comprehensive education. Due to the fact that every autistic child is different, there is a need for a personalized education, that adapts according to his/her learning capabilities and progress. Sc@ut's versatility permits it to adapt and create units of work personalized to every child's profile, the scenarios he/she is used to and his/her educational needs. But education must be comprehensive too. Often, children with communication disorders suffer from isolation or have serious difficulties to integrate, because not only of their lack of verbal language, but also severe behaviour troubles (i.e. aggression, self-inflicted injury, tantrum, objects breakage...). Generally, they are a way of communicating a desire or needing, attracting their parents or teachers' attention. Thus, if we facilitate a more appropriate and adapted communication manner, the frequency of these disruptive behaviours will diminish.

The developed system is being used by more than 30 children in schools and autism associations. It's a vital tool both for students and for parents and teachers, since it allows them to communicate and, thus, facilitates access to education to children who, without our system, couldn't have that access.

#### Technology/software used:

At a functional level, we may define Sc@ut as a technical aid-running on Pocket PC devices (Windows Mobile®, Microsoft.NET Compact Framework 2.0) as well as XP Tablet or Desktop (Microsoft.NET Framework 2.0)-able to use any pictographic communication system that makes it easy to create agendas, pictograms and units of work which contents are created by the educator by following pedagogigal objetives for every specific child. Templates offer the children a communication representation within an hypermedia network-internally represented on XML-. Hypermedia technology allows the children to learn new concepts and relate them with other acquired before. We've also developed a Desktop application for the design of templates and user's profiles that uses Web Services to download/upload the files created with it from/to the server, so that they may be reused. We have implemented on Microsoft® Visual Studio 2005, with C# being the programming language. At this moment, we are using Microsoft® XNA platform for development running on both Desktop and XBOX 360 console.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We wanted to take part in the Imagine Cup since our application fulfilled the demanded requirements and we liked the idea of new challenge and emotions. We also want to meet people from all over the world who work in software development. We chose Software Design because of the technologies we've used, we thought that participating was an exciting challenge.

### What has been your favorite part of the Imagine Cup competition thus far?

Our favorite part has been the possibility of sharing experiences with other Spanish teams, meeting people and exchanging opinions, and the good time spent with all the people.

### How did you come up with your idea?

We started our project because of that specialists on Special needs Education needed our help to develop an innovative and inexpensive system which could aid them on their everyday teaching activity. Our product is simple, but we think it's very useful and attractive in order to achieve a more humane and comprehensive education with people with disabilities. Our teachers recommended us to present it to Imagine Cup and now we're here! :)

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

Making this idea into a business could be interesting, indeed. But at the moment, we are focusing on obtaining the needed support for our system so we can satisfy as many people as possible. We'd like our world to be more equitable, and this would be our true reward.

### What are you most looking forward to about the worldwide finals in South Korea?

We want to enjoy this unique experience Microsoft has given to all the participants, to meet our mates from other countries and watch their fantastic projects.





### Sri Lanka SARA



#### **Team Members:**

Anuruddha Ranatunga Sanjaya Rathnayake Amila Sajayahan Ruvindee Rupasinghe

### Title of Project:

Integrated Services for Early Childhood Education & Development (ISECED)

### **Project Overview:**

ISECED is a Web and mobile-based application designed for early childhood education. The objective is to improve the effectiveness and efficiency of early childhood education through the integration of critical services. Here the parent is supported to become an active participant of child's education process. ISECED addresses the child's health, which has a huge impact on early childhood education process, by providing a comprehensive record management system and coordination with relevant professionals. The other area addressed by ISECED is resources. Especially for pre schools in developing countries, this module is useful for attracting and coordinating donors and other resources.

### Technology/software used:

- Microsoft Visual Studio Microsoft.NET 2005
- Microsoft Mobile Internet Toolkit
- Microsoft.NET Framework 2.0
- ASP.NET/ C#.NET
- XML Web Services
- Microsoft SQL Server 2005

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

It was our University (University of Moratuwa-Faculty of Information Technology), which won the last two consecutive Imagine Cup Local finals. Having seen what our seniors achieved, it was an automatic decision to participate in the competition. Moreover, we believe that software design is the category in which we can make the biggest impact.

### What has been your favorite part of the Imagine Cup competition thus far?

Surely the presentation. It was a big occasion when we got the chance to present our creation to the public.

### How did you come up with your idea?

Our intention from the very beginning was to do something, which is practically usable to solve a critical issue. So we started thinking from the problems, not from the technology. Finally after a number of brain storming sessions we came up with this idea.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

After the local finals, some entrepreneurs have already expressed their interest on the application. There are several private pre-school networks in Sri Lanka. So chances are there to implement this through one of them. We will also look for other possibilities through Government as well as NGOs. More importantly, this is an application, which can be used by organizations like UNESCO, which are engaged in this early childhood scenario, as a role model for developing countries.

### What are you most looking forward to about the worldwide finals in South Korea?

It is all about experience! It is a rare occasion where talented young people from all over the world convene at a single place and present their creative solutions. There will be quite a lot of experience to share among us.





### Taiwan

**Uncle Bear** 



**Team Members:** 

Yu Chung-Yung Hu Jya-Cheng Chi Chung-Yi Lee Jong-Chuan

### Title of Project:

Baby Self-Education System

### **Project Overview:**

Baby Self-Education System provides a self-learning environment for children to interact with daily objects and help parents discover and develop children's interests. Besides, third-party providers can easily develop teaching materials and integrate them into our system to enhance the functionalities of our system. With Baby Self-Education System, the children education becomes unlimited by discovering children's interests and inspiring their potential.

### **Technology/software used:**

- RFID
- SOAP Web service
- Expert System
- Microsoft Visual Studio 2005
- Microsoft SQL Server 2005

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We always wanted to implement a system which is really useful, interesting and contributory. We are dreaming to make the whole world different. The Microsoft Imagine Cup gives us the opportunity and direction. Therefore, In terms of the topic this year, we designed our system, Baby Self-Education System, to enter the Software Design competition of Imagine Cup.

### What has been your favorite part of the Imagine Cup competition thus far?

The most impressive part of Imagine Cup so far is the "show" in the local final competition in Taiwan. We walked on the stage, played a show, expressed our idea and vision, share our work to others, and competed with other teams. Not only the care of Microsoft Taiwan is touching, but the passion and enthusiasm within each team is indeed moving. This is the most exciting and impressive part of the competition.

### How did you come up with your idea?

Our teacher, Professor Phone Lin, mentioned an interaction experience with his niece. And we discussed issues about children education and the serious problem of lack of suitable and mature education system. We started to think about designing and building a self-learning environment to give children access to a better education. Therefore, this idea became our project topic.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We would like to continuously refine our work, because we believe our system could improve the education of children a lot. We would extend our system to a more powerful and robust system to provide children the best education. If possible, we also want to make it into a business, especially with Microsoft, but currently it is not a part of our schedule.

### What are you most looking forward to about the worldwide finals in South Korea?

Of course, we want to show our work, Baby Self-Education System, to the whole world!





### Thailand 3KC Returns



#### **Team Members:**

Prachaya Phaisanwiphatpong Vasan Chienmaneetaweesin Jatupon Sukkasem Pathompol Saeng-Uraiporn

### Title of Project:

LiveBook!

#### **Project Overview:**

Life Book is a software project that converts a text based book into a virtual graphical book on a computer screen. Our project is designed for kindergarten children, who are learning the basic of reading and writing. Obviously, they still cannot read most general books, due to the complexity of language. So with LiveBook, they just put the book in front of a Web camera. Then, the system will capture book pages, run character recognition, read each word and match it with entries in Encarta Encyclopedia. Finally, the view of the book on screen will present each page of the book as a graphical plain with rendered objects due to its text, which will enable children to understand to the book visually even they cannot read it fully.

### **Technology/software used:**

Core Technology

- Microsoft Visual Studio 2005
- Microsoft .NET Framework 3.0
- Microsoft Windows SDK
- Microsoft DirectX SDK
- Web Services
- OGRE (O-O Graphics Rendering Engine) Engine
- Optical and Hand Written Character Recognition Technology
- OCR/HCR: to recognize word on the book.

#### **Supplement Content**

- Microsoft Encarta Integration
- Wikipedia Integration

What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

Developing the application for the real world from the knowledge we got in the classroom.

What has been your favorite part of the Imagine Cup competition thus far?

When our team can work together to solve both technical and non-technical problems.

How did you come up with your idea?

The literacy rate in our country is low, but people still need to be able to enjoy and read books.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We want to run a software house when we graduate and start with this application!!

What are you most looking forward to about the worldwide finals in South Korea?

Sharing our ideas with other contestants as well as winning the competition. :)





### Turkey

### PARE.NET



#### **Team Members:**

Murat Bilici Erman Oral Deniz Demir Can Kayacan

### **Title of Project:**

PARE.NET

### **Project Overview:**

In the world, each person encounters problems about the issue of lack of experience and informantion, communication and sharing when they become parents. Within the project, a dynamic and interactive information cycle platform is provided for the parents. This platform is developed to educate and reduce the learning curve of parents to baby care concepts. Based on the research that shows that babies use meaningful voices until they begin to speak, in this project we use technology to analyze and translate these voices into meaningful language for the parents. With the help of PARE.NET, a solution for the communication problem between parents and babies is developed in the form of an education platform.

Our project, PARE.NET offers an innovative tool to communicate, create, disseminate, store and manage information through main values of education which are common all over the world and have not been changed during many ages.

### Technology/software used

- Self created Web service
- Microsoft.NET Framework 3.0, Microsoft.NET Compact Framework 2.0
- Mobile device
- Microsoft Visual Studio 2005 used for developing
- Microsoft SQL Server 2005

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We thought that we could make a difference in the world today. It is a fact that there are global problems around education and especially parents' education in the area of baby care. If solutions to linguistic problems can be solved through information technology, people can be much happy and feel at ease in their life. So, we imagined a world where babies and parents will be much happier by solving their communication problems through parent education. As we are studying computer engineering, we combined our passion for technology with the powerful software platform of Microsoft to create a solution than can benefit and change the world.

#### What has been your favorite part of the Imagine Cup competition thus far?

Creating and developing innovative solutions for global problems that have not been solved yet.

### How did you come up with your idea?

Every day, we see that first time parents have problems with baby care. They are not experienced enough, they can't get information that they need immediately and there is no comprehensible language between parents and their babies. Researches, field experts and doctors say that our thoughts are realistic and if brought as a solution into life would benefit and improve lives of many people around the globe. Education, babies and parents were the basic concepts we have in mind. Babies are crying because whether they cannot tell parents their needs or parents cannot understand and have to go with guessing their babies' needs. What's more, parents are not experienced enough about baby care. Education is a lifelong process and parents are the first educators at home, that is, mother and father have a crucial role in a child's education and development cycle. Therefore, we wanted to come up and develop a reliable, many-sided and useful solution. Imagine a world where the babies, our future, are happier and the parents have access to take a good education for baby care and for healthy development of a child - thanks to the technology...

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

Our project is based on research and field experts' opinions. We developed a solution and community for solving real life problems all over the world via technology. We imagined a world, people are happier and we want to make our dream project real by bringing it into life after the Imagine Cup finals in South Korea.

### What are you most looking forward to about the worldwide finals in South Korea?

We want to bring attention to the problems that we found. We know that babies are our future and we need education on how to take care of them. If people are aware of these problems and discover solutions to them, life can be comfortable and peaceful for people. We look forward to meeting new friends from all over the world and connecting with new ideas and of course bringing the trophy back to our country.





### Ukraine Team Fenestra



#### **Team Members:**

Oleksii Kuchaiev Petro Protsyk Kiril Yatsenko Valeriy Prohorov

Mentor: Anatoliy Doroshenko

### **Title of Project:**

Fenestra

### **Project Overview:**

"Fenestra" allows people with visual disabilities to be fully integrated into the educational process with normally sighted people.

### **Technology/software used:**

Microsoft.NET framework 3.0, Web services, XML, COM, Speech SDK, Grauile Fingertips reader SDK, ASP.NET / MS Visual Studio 2005.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We want to create innovative software and help people to fully use the power of modern IT technologies.

### What has been your favorite part of the Imagine Cup competition thus far?

Doing competition presentations.

### How did you come up with your idea?

We came to the representatives of our target auditorium, asked them about their problems and tried to solve them using the latest technologies.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We will continue enhancing our project and making it into business software.

What are you most looking forward to about the worldwide finals in South Korea? Meeting with our peers from all over the world.





### **United Arab Emirates** Creative

Gulf Region



#### **Team Members:**

Ghalya Al-Mannei Hayfa Jarrah Hamda Al-Bariki Noura Al-Dhaheri

### **Title of Project:**

Learning on the Move!
An SMS Based Approach To Learning

### **Project Overview:**

Learn wherever you are; in the car, in the bus or in the train! Today's mobile generation is learning on the move! The learning addressed in this project occurs whenever there is a break in the flow of routine daily performances to reclaim wasted time while being on the move to address a problem or to gain an understanding. There has been widespread discussion of the need to widen access to learn access to learning resources, particularly the worldwide WEB. Far less consideration has been given to providing mobile learners with technology to help them learn when and wherever they choose and to support their personal learning throughout a lifetime, progressing towards their educational objectives in a constructive manner.

### Technology/software used:

Technology: Microsoft.NET Mobile, Huffman Compression algorithms, c#, ascx, aspx, xml

Software: Microsoft Visual Studio 2005, Microsoft Server SQL Express 2005 and Microsoft Office

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

Our creativity leads us to the imagination

Our challenge leads us to the competition

Our expertise leads us to the Software design

We were inspired by our passion to technology to enter the world of IT from this international competition gate. We chose our way to Imagine Cup because we know our potentials and we do not want to miss the opportunity to be close from our peers from all over the world and share with them our "Imagination" in addressing the latest frontiers in Information Technology.

### What has been your favorite part of the Imagine Cup competition thus far?

The loud screaming, the enthusiastic clapping and the joy of winning the Microsoft Imagine Cup 2007 in Gulf Region... That moment, when Microsoft crowned our idea leading us to this opportunity to represent our region in South Korea was really "the favorite one" so far.

### How did you come up with your idea?

The Imagine Cup theme for 2007, which is about EDUCATION, stimulated our motivation. We searched for a way to provide education to everybody, not just regular students in an affordable way. We aimed at granting education to every human being who has "the will to learn"; because we believe in education as an ongoing process that satisfies the desire of having the knowledge and fulfill the needs of reaching information. On the other hand, 2007 represents a dramatic shift is the mobile world. Cellular phones, Smartphones, laptops, PDAs ... are all over the world. These fruitful technology advances blossom into new forms of learning opportunities to further pave the way to keep pace with these advances. We created a mobile learning framework that adapts to learner's situations in terms of mobility, device capability, usability and time utility. We are introducing a new learning concept that is poised to shape the future of learning in our ever mobile world.

# What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

Fortunately, we had this idea in mind already, as a famous local Telecom company (Emirates Integrated Telecommunications Company: EITC-DU) from our country asked us to think about commercializing our product. Moreover, having such a great professional team, which have been gathered specially for the Imagine cup, made us thinking about more than just a product as we are planning to create the first development center in our country to help us to realize our dream and imagine more dreams to achieve.

### What are you most looking forward to about the worldwide finals in South Korea?

The worldwide finals in South Korea are our gateway to share with the world what we did. We want to say to the world here we are: Young, Fresh, Creative minds succeeding in making a better world by making better use of latest technological advances to expand human learning opportunities. We want them to hear our message from South Korea's finals to the world: that we improved the world... We have high prospects for the Imagine Cup 2007 Finals as we believe in our product and our potential to win. Besides this paramount horizon for the Finals, we are happy that Microsoft granted us this opportunity to see and share top ideas.

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### **United Kingdom** The Seedlings



#### **Team Members:**

Jim Alexander Matthew Steels Mat Steeples

### **Project Name:**

My First Programming Language (MyFPL)

### **Project Description:**

Our project aims to teach children the fundamental concepts of computer programming. This is done through a colorful user interface that has been designed to keep them interested and a set of tutorials that they can complete to build up their knowledge.

### Technology/software used:

We are using Microsoft Visual Studio 'Orcas' to build our project, and making the most of the Microsoft.NET framework (version 3.5) including Windows Presentation Foundation (for the user interface) and CodeDOM combined with reflection to allow for the execution of user-written code.

We are also using Team Foundation Server for source control and project management.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Software Design invitational?

We entered the Imagine Cup because we felt we had a good idea that could make a difference to a large number of people. The Imagine Cup gave us the chance to take our idea and make it real, as well as promoting it and getting feedback from our peers and people who have experience in our target area (academic lecturers/teachers etc).

We chose the software invitational because it gave us the best opportunity to use the skills that we have learnt at university. We also wanted to attempt to create the software behind our idea, and the software invitational was the best route to attempt this.

### What has been your favorite part of the Imagine Cup competition thus far?

We have really enjoyed the chance to meet various people at Microsoft and talk with them about their areas of expertise and learn from them. We have also enjoyed building our application, as the team have got on very well from day one and we all enjoy playing with the latest technologies.

### How did you come up with your idea?

One of our team members' dissertation reports was based upon the principles of teaching computer programming. As a team, we used the research that had been collated and decided to try and tackle what is becoming a large problem for the UK's software industry.

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you or your team plan on taking your idea and making it into a business?

We plan on turning our application into a community driven project co-ordinated by the University of Hull. The source will be freely downloadable allowing many children across the world to readily use our project. It will also enable final year students at the University to take on various aspects of the project to further their development skills and the usefulness of the application.

### What are you most looking forward to about the worldwide finals in South Korea?

We are all very excited about heading out to South Korea as it is a country the three of us weren't likely to visit independently. It will give us a chance to explore the differences in culture and will hopefully have a strong balance between how much work we end up doing and how much sightseeing we get chance to fit in! We re looking forwards to presenting our idea to a large audience, and are eager to see what the rest of the world has come up with.





# **Embedded Development**

Devices are becoming smaller, more portable and are having a greater effect on our daily lives. The **Embedded Development Invitational challenges** offers students the opportunity to unlock their creative genius and to develop technology solutions that will help address real-world challenges. Formerly called the Windows Embedded Student ChallengE, this competition challenges students to go beyond the desktop and use their creativity to build a complete hardware and software solution that will have an impact on our everyday lives. Using Windows Embedded CE and the hardware provided (the ICOP eBox 2300), teams of three to four competitors build working prototypes of a devices that can help solve some of our world's toughest problems around the competition theme "Imagine a world where technology enables a better education for all."





Development

**Embedded** 



### Brazil

### LearnSmart



#### **Team Members:**

Alex Assis dos Santos Leandro Pilan da Rocha Thiago Luiz Lima e Tiago Porangaba

### Title of Project:

Pangea-Bringing People Together

#### **Project Overview:**

Pangea Project is a technological solution that enables a language study environment based on eTandem approach, where two people connect to each other through two access mobile stations, named Pangea Points. In these stations, they can teach and learn their native languages, creating a collaborative environment for language learning and teaching.

The Pangea stations are composed by a embedded hardware, named E-box 2300, that will be located in public places, such as universities, libraries, supermarkets, cultural centers, subway, train or bus stations, making the access to language learning more democratic. Thus, it gives the public the opportunity to learn or practice a foreign language, with partners that speak this language natively.

Moreover, the study sessions realized in the environment are stored as text and audio files in a Web site named the Pangea Portal, so the tutors/teachers can access and help the users in theirs study sessions. This information could be used for academic research in the area of linguistics.

### Background on your team: Who are you and how did you meet?

Leandro, Thiago and Tiago are classmates and met in a in BSc Information Systems course in 2005 from University Sao Paulo State (UNESP). Alex joined the same course in 2006. Also, Alex, Leandro and Tiago are members of LTIA (Applied Laboratory of Information Technology) at the same university, where they do technological research in embedded systems and software engineering areas.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded Development invitational?

Our laboratory always gave us all support we needed, enabling us to join a worldwide competition like Imagine Cup 2007. At LTIA a lot of teams already participated in the Imagine Cup and Windows CE Challenge in previous years. The theme of the competition this year was a great motivation for us, since we already worked in some educational projects.

We chose the Embedded Development category because all our team members have interests in this area, because in our lab we already worked with embedded systems and because of the great possibilities that this category enables, due to mobility and low costs.

### What inspired your project idea? Was your idea difficult to conceive?

At first we did researches on education field in order to find where we could contribute with a technological solution. During our meetings with mentor, we all decided to build a language learning-teaching solution based on tandem methodology.

In this process, our mentor performed a very important role and helped us in analyzing possible ideas that we could follow and in defining the final scope of our job.

#### Technology/software used:

- Microsoft Windows CE 6.0 to build a customized operational system
- · Microsoft Visual Studio 2005 as software development environment to build Pangea Point and Pangea

#### Portal software

- · Microsoft Ajax ASP.NET to build a rich interfaces on Pangea Portal
- Microsoft Visual C++ to build low-level libraries
- Microsoft SQL Server 2005 to store data from all Pangea system
- · Microsoft Visual Source Safe 2005 to synchronize and store all code produced by team
- · Microsoft Project, OneNote and Visio 2007 as collaborative tools, helping us in project management area

#### What personal or technological challenges did your team face while developing your device, if any?

Actually, we had lot of challenges: Conceptual challenges related with education, marketing challenges (deciding how to provide an economically feasible solution), and technical challenges. To solve technical points, we counted on co-workers and friends of LTIA to help us in some critical points(i.e. porting code to Windows CE and strong and transmitting audio conversation). Our mentor was very helpful with marketing and educational points because his life experience in that area is very valuable and consistent.

Also it's important to say that beyond of these challenges, all our team members had to balance these tasks with college commitments and their personal life with parents and girlfriends. So, we can say that this experience has been very rich for our lives

#### What has been your favorite part of the Imagine Cup competition thus far?

We loved the whole experience until now.

The Imagine Cup Competition gave us liberty to dream and create. This is one of the most beautiful resources that human beings own. This experience already is worth our participation. The experience about team work and a experience about build a project from an theme also was a huge learning for us. We just want to say thank you for that!

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

The team wants, regardless of this competition result, to proceed with the Pangea development due to the great social and educational, possibilities that this solution presents. Thus, the team has looked for partnerships who are interested in using and testing the Pangea solution in a real environment.

During the study of eTandem approach, made by the whole team, there was an exchange of ideas between the Learn Smart Team and other professors from the same university. This exchange brought some contacts with Languages College Course professors of University Sao Paulo State, at Assis campus, which demonstrated a real interest in testing the Pangea Solution. For a real situation, the team intends to look for partners from foreign University who are also interested in the Pangea Solution.

#### What are you most looking forward to about the worldwide finals in South Korea?

We hope get from South Korea a rich experience through meeting people from all over the world. Also, we hope to have succeeded on our project presentation doing our best!



Some screenshots of Pangea Point Interface



Pangea Portal interface that provides an area where tutors give feedback to students.



Development

Embedded



### Brazil

### **TriventDreams**



### **Team Members:**

André Wilson Furtado Carlos Eduardo Rodrigues Ivan Cordeiro Cardim

### Title of Project:

E-du Box

### **Project Overview:**

E-du box is a low-cost and flexible hardware/software edutainment platform. It empowers educators with the necessary elements to provide rich (yet localized) multimedia content to students, thus enabling a better education for them. In general terms, e-du box is a computing device that can be connected to ordinary TV sets, already existent in the great majorities of homes. The solution allows learners of all ages to experience content created by their own educator in an intuitive and stimulating way. Its flexible structure allows it to be reutilized throughout the years, decreasing the overall cost of implementing the solution. Moreover, its customizable hardware and software "skins" invite the private initiative to become a strong player in the solution, therefore strengthening e-du's business model.

### Background on your team: Who are you and how did you meet?

Post-graduation students from the Federal University of Pernambuco (UFPE).

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded Development invitational?

It was the perfect category to put some of our ideas into practice.

### What inspired your project idea? Was your idea difficult to conceive?

We were inspired by the fact that one fifth of the world's population is illiterate. The way we've conceived our idea was not easy, we have made a field research with key stakeholders in the area until we have reached a final solution.

### Technology/software used:

Windows CE, Microsoft.NET Platform, Bluetooth, 32Feet.NET library, WPF (Windows Presentation Foundation), Windows Vista Gadgets, AJAX.

# What personal or technological challenges did your team face while developing your device, if any?

Acceptance from real-world users and putting the solution hardware together.

What has been your favorite part of the Imagine Cup competition thus far? Having our ideas, skills and competence be challenged.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

Yes, but we intend to get as much feedback as possible first.

What are you most looking forward to about the worldwide finals in South Korea? Interact with people from all around the world.





Development

**Embedded** 



### **Brazil**

### **UNESP**



#### **Team Members:**

Evandro da Silva Rezende Lucas Bertinotti da Silva Marcelo van Kampen Rafael Augusto Teixeira Mentor: Eduardo Martins Morgado, PhD.

### **Title of Project:**

SmartBox

#### **Project Overview:**

SmartBox is low-cost solution which helps the teachers bring to classroom multimedia contents to enrich your class by using a common TV set and a remote control. The teacher can produce educational content at your comfortable home and post it into the school repository with the SmartBox Web Site. At classroom, he can access the same repository and bring to the students rich content, improving the teaching process and catching the student's attention. The repository can be accessed by all students, because it uses IEEE LOM (Learn Object Metadata) patterns that improve the files searches. Teachers and students became educational content producers. The teacher can also create communities to organize your classes and subjects, and the students to create study or interest groups. These communities can be used for share files among the members, discuss subjects with a forum and share schedules (tests, homework and so on). The focus of idea is to give the teacher the right tools to leave them to do what they do at its best; teaching.

#### Background on your team: Who are you and how did you meet?

Lucas and Rafael are students of Information System course. Evandro and Marcelo are Bachelors in the same course (they were graduated this year), Evandro also is an undergraduate student of master's degree course. We are part of an initiative of some teachers and students at our university called LTIA (Information Technology Applied Laboratory). Eduardo Morgado, PhD is professor of our university and LTIA coordinator. This laboratory has a different approach than the academic one, bringing high technology directly to the undergraduate students, allowing them to apply what was learned in the classroom before the graduation. We met at this laboratory and we became great friends. In the end of 2004, we decided to bring a team to the "Windows CE Challenge 2005". In that year we made 4th place, and since them, we kept the same team and team name to bring luck. We had some degree of success since, by getting to the finals of Windows CE Challenge 2006 and making 3rd in Windows CE Shared Source Contest, in August, 2006. Now we are again in a final, this time at Imagine Cup!

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded **Development invitational?**

We participated in WESC since 2005 when it was the first edition that accepted foreign teams. In 2007, this contest became an invitational of Imagine Cup, which raises the challenge, because the number of people registered in the Imagine Cup is much more. The theme inspired us too. Education is a core of a solid society, if we want improve the world, and decrease the differences among the people, we have to invest hard in education, to make it possible to all.

#### What inspired your project idea? Was your idea difficult to conceive?

When we received the theme, we had many brainstorming sessions about it. We wanted to improve the educational experience not just for the students but also for educators and everyone in the teaching process. We had to research many options up to decide what we should use to create a beautiful, and at the same time, an easy to access interface that depends only on your remote control. Another challenge was create the files viewers created by a common PC, such as PowerPoint slides and PDF files, and make them compatible with a TV set. We thought about a common classroom, and what it has and how to improve using a low-cost approach. So, after talking to some teachers and pedagogical students, we have an idea: to use a common TV set in the class room, one remote control and one low-cost device which can access an education content repository and show all content in the classroom just by some buttons in remote control. This way, the teacher can bring to your class some all office documents, slides, texts,

graphs, pictures, videos and audio files without the common hassle associated with technology. All this in a simple way, he/she can prepare or research class materials at your sweet home and put it into school repository by using a Web site. When the class starts, the teacher gets the remote control and teaches using the TV set or a projector accessing the files which already are available in the SmartBox at classroom. So, the teacher can make use of this technology directly in the classroom, aiding him/her at the teaching process. In many cases, for instance, a diagram or an image tells much more than words.

### Technology/software used:

SmartBox at Classroom:

- E-Box 2300 all-in-one Vortex86 200MHz. Custom Remote Control Receiver hardware and driver.
- Microsoft Windows CE 6.0
- Microsoft Compact Framework 2.0
- SDL (Simple Direct Media Layer)
- PocketXPdf PDF library.

#### SmartBox Server:

- Virtual PC 2007 for Server image
- Windows Media Services WM9 Series
- Microsoft SQL Server 2005
- Microsoft Windows 2003 Server

• Remote Desktop Client component

• PocketSoap for rapid Web Services consume.

Internet Information Services

MSXML Parser Component

- IEEE LOM (Learn Object Metadata)
- Visual Studio .NET 2005 and Framework 2.0 for Web Services Application and Web Interface

#### Management and organization:

- Microsoft SharePoint 2007
- Microsoft Project 2007
- Microsoft Source-Safe 2005
- Microsoft OneNote 2007
- Microsoft Visio 2007

### What personal or technological challenges did your team face while developing your device, if any?

One of many challenges which we had was optimize the application running at e-Box. We have to research many options up to decide what we should use to create a beautiful, and at the same time, an easy to access interface that depends only of the remote control. Another challenge was create the files viewers created by a common pc, such as PowerPoint slides and PDF files, and make them compatible with TV Set.

### What has been your favorite part of the Imagine Cup competition thus far?

The research and development of new ideas was always the favorite part for our team. The Imagine Cup gave us the opportunity to develop an idea and receive approval of great specialists from Microsoft and other markets specialists, giving us reliability. And of course, we love to be in contact with Microsoft technology and people whom we admire.

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your

Yes. We want to find partners that can help us bring our project to business. We also look forward to the idea of opening our own company.

#### What are you most looking forward to about the worldwide finals in South Korea?

It is very exciting think about the finals in South Korea. The travel will be great, to know new places around the world, to meet new students from other countries, to meet people (developers, testers, managers) from Microsoft, and mainly, to have the opportunity to show our work to important people which are specialists in this area.



SmartBox main menu (at Classroom)



The SmartBox Web Interface helps the teacher bring educational content to the classroom.



**Embedded** 



### Canada iDoll



**Team Members:** 

Caleb Ho Johnny Tsung-Lin Ho Alan Tien-Cheng Huang Noel Wu

#### Title of Project:

A Portable and Scalable Interactive Manikin System

#### **Project Overview:**

Cardiopulmonary resuscitation (CPR) is a lifesaving technique practiced by millions of people each year. While the importance of CPR is indisputable, statistics have shown that CPR is poorly executed as a significant percentage of CPR trainees lack the confidence and ability to perform CPR during actual life-threatening scenarios. We believe the frustrating fact is the result of the ineffective CPR training paradigm today.

In our system, we introduce an innovative interactive manikin upgrade to improve the learning experience of CPR in a classroom and at home. Specifically, users can economically integrate our system onto manikins from existing self-guided or classroom-based CPR training programs. In turn, our system provides interactive features such as technique assessment and vital sign simulations, as well as other features that improve students' self-learning and help instructors manage multiple students in classroom settings.

#### Background on your team: Who are you and how did you meet?

We are students from the University of British Columbia, in Vancouver BC, Canada. Caleb, Johnny, and Alan were undergraduate classmates together in the Electrical and Computer Engineering department. They have previously designed and created various electronic devices and projects successfully together. Noel, who is in Engineering Physics, met Caleb back in elementary school. His passion and interest in electrical engineering and embedded systems has led him to join as part of the team to compete in this competition.

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded Development invitational?

Microsoft Imagine Cup is an exciting worldwide event that allows students to learn about technology and exercise their creativity. Our passion for technology and embedded systems has led us to embrace this opportunity to apply what we have learned from school into projects and ideas that could potentially change the world. Best of all, we have the chance to compete with the brightest students around the world.

#### What inspired your project idea? Was your idea difficult to conceive?

CPR training has always been important in our society because CPR can save lives. When we were brainstorming for ideas for the Imagine Cup, a few of our classmates were building an interactive manikin. Seeing their project, we immediately recognized the need for improvement in CPR training, but we also noticed that their solution was similar to what was available in the market, and hence the cost of their system among other issues in CPR training

remained unresolved. We then analyzed potential improvement areas in current CPR training programs and used our creativity to provide an economical solution so that effective CPR training can be available for self-learners as well as classroom-based groups.

#### Technology/software used:

Tools: MS Platform Builder, MS Visual Studio 2005

Hardware: ICOP eBox-2300, Ethernut 2 AVR Development Board, accelerometer, voice playback chip, microphone, audio amplifier, airflow sensor, speaker, DC fan, LEDs

Technology: Windows Embedded CE 6.0, Compact .NET Framework 2.0, C#, C, Nut O/S, TCP/IP

### What personal or technological challenges did your team face while developing your device, if any?

There were many technological challenges. None of our team members have ever used Windows Embedded CE or the eBox prior to Imagine Cup, not to mention developing our own OS images specific for our application. Microsoft's Platform Builder, along with the detailed instructions available to us have definitely helped us learn tremendously on the topic. Furthermore, the nature of our project requires the integration and calibration of many different components? many of them we are using for the first time. This challenge was one of the reasons why we decided to join the Embedded Development Invitational because we not only had to design software, but a complete embedded solution with hardware as well.

#### What has been your favorite part of the Imagine Cup competition thus far?

Our favorite part of Imagine Cup would be the complete design freedom to express our innovation. Spending time with like minds is also a great experience; our team not only works on the project together, but we also share a lot of common interests and spend time together in sports, video game, and other extra-curricular gatherings.

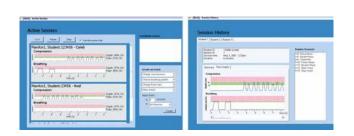
## What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

Going further with this project is definitely a possibility. Some organizations and companies alike have expressed interest in our idea, and our team might decide to go on with our idea.

#### What are you most looking forward to about the worldwide finals in South Korea?

Seeing and touring South Korea of course! Other than that, meeting the different teams around the world, as well as meeting the Microsoft officials that run this competition would be an exciting and valuable opportunity.







**Embedded** 



### China

**BJTU** 



#### **Team Members:**

Licong Zhang Chengqi Wang Yanhui Xiao Dandan Li

#### **Title of Project:**

Multi-functional system based on palm print features

#### **Project Overview:**

As traditional methods fail to satisfy the need of campus identity attestation fully, we decide to develop a new but reliable method based on biometrics features.

We create a system, a multi-functional system based on palm print features-INNOBEYOND. While passing the identity verification, user can choose the four subsystems -consumption subsystem, elective subsystem, library management subsystem and medical treatment subsystem. With the powerful system as a whole, we believe we are creating a better educational atmosphere for all!

#### Background on your team: Who are you and how did you meet?

We are all members of Science and Technology Innovation Base. We all have the same interest in embedded technology, which brought us together. We all love it very much, and we are all full of hope in this project.

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded Development invitational?

We saw the Imagine Cup poster and were interested in it, and felt that we would like to communicate with the students all over the world. We were familiar with embedded systems and had experience in it, so we chose the Embedded Development invitational.

#### What inspired your project idea? Was your idea difficult to conceive?

Some phenomena with significantly negative impacts in campus are becoming increasingly serious and obvious. A typical example is that of cheating in exams. Such phenomena become an obstacle of better education quality and maintaining fair competition atmosphere.

After careful thinking, we found that these serious phenomena have a point in common-IDENTITY VERIFICATION. With a gradual increase in requirement for it, traditional code and photo methods fail to satisfy the need of campus identity verification fully, for it is easy to lose, forget and fabricate. Identification based on biometrics features therefore comes out to be a much more effective alternative technique in identification of identity.

#### Technology/software used:

- RFID card and camera controlled on WinCE, Image Conversion, PCA algorithm.
- Software, Platform Builder and Visual Studio 2005

### What personal or technological challenges did your team face while developing your device, if any?

The camera is very difficult to add on the WinCE system and we took a long time to solve it. What is more, the RFID module is hard to be controlled on the WinCE system too, for the .dll provided by the manufacturer is only support on XP system.

At last, we have to develop the module according to the serial agreement.

What has been your favorite part of the Imagine Cup competition thus far?

Embedded Development, of course!

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

We will go on making our project more perfect. If possible, we will discuss with our mentor and build our idea into a business.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to talking with the competitors from all over the world. It must be an exciting time!



**Embedded** 



### China

MIC



#### **Team Members:**

Du Xiaoshi Li Long Liu Yang Zhao YuanXue

#### **Title of Project:**

**E-Sports Teaching Expert** 

#### **Project Overview:**

E-Sports Teaching Expert is a training assistant system applying to sports teaching and make a tailored training plan for each student. The system design concept of star is Individualize Physical Education. For PE teachers, teaching will be more theoretical and plan able; for students, learning will be more effective and amused. And the whole physical education will more scientific

#### Background on your team: Who are you and how did you meet?

We are all from HuaZhong University of Science and Technology.

Du Xiaoshi: He, who come from College of Electrical & Electronic Engineering, is the team leader and responsible for the whole project.

Li Long, Liu Yang and Zhao YuanXue: They, who all come from College of Control Science & Engineering, are the backbones of the team.

We are all members of Science and Technology Innovation Base. We all have the same interest in embedded technology, which make us come together. We all love it very much, and we are all full of hope in this project.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the **Embedded Development invitational?**

Last year my senior schoolmates had participated in the Windows Embedded Student Challenge held by Microsoft. And we extremely envy them to be able to have such an experience.

Of course, all of us are embedded programming frantic amateur. Why choose the contest which sponsored by Microsoft? Because Microsoft is the largest multinational computer technology corporation, and we considered Windows Embedded is more powerful than other embedded system.

#### What inspired your project idea? Was your idea difficult to conceive?

This is a scene in our domestic physical education: A teacher holding a stopwatch recorded the time students took for 50-metre running; a student only complete the teaching plan mechanically and numbly, and never experience large charge from sports training. This artificial empirical non-specific teaching method has experienced 60 years in China Today, with the rapid development in science and technology, we cannot help but ask: Isn't there any product that could change this situation? Este designed by us will be the terminator of this.

It is not difficult to conceive. We found the problem from daily physical education and imagined improving it with the use of new science and technology.

#### Technology/software used:

#### Technology:

- ASP.NET 2.0
- OLE DB/SQL Server CE
- Near-Infrared Spectroscopy oxygen detection theory
- Entertaining teaching

#### Software:

- Microsoft Visual Studio 2005
- Microsoft IIS
- Keil C 7.02

- AJAX (Asynchronous JavaScript + XML)
- Wifi and Wireless Sensor Network
- Muscle blood oxygen digital analysis algorithms
- SQL Server 2000/CE
- Dreamweaver MX

#### What personal or technological challenges did your team face while developing your device, if any?

While developing our device, we met plenty of challenges in hardware and software design. Take software design for example, at the very beginning, we tried to use access as the database of our system, we didn't realized the WinCE6.0 didn't support access database any more, so we lost much time there; After we decided to use SQLCE as our database, we met a big problem: none of us knew how to synchronize between the eBox2300 and PC. We had to learn the unacquainted technology from zero start.

#### What has been your favorite part of the Imagine Cup competition thus far?

The competition is an international activity. In this competition, we firstly meet the outstanding students from all over the world, learning and exchanging all together, and it's an exciting thing for all of us.

#### What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

In fact, it's a very rare opportunity for us all. After the Imagine Cup finals in South Korea, more effort will be put to work on the industrialization and promotion of products so that our products could be mass produced, packaged and advertised. As a result, our product will have the real ability to serve every student and the physical education.

#### What are you most looking forward to about the worldwide finals in South Korea?

The world finals in South Korea are not only a technical competition, but also a competition on wisdom, perseverance, presentation, propaganda and other non-technical factors. We hope show our personality and ability in front of the students from all over the world on this stage. And we hope Microsoft will give us a new understanding in computer science





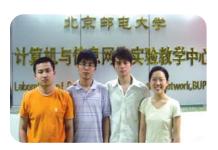


Embedded



### China

### **PurpleElf**



#### **Team Members:**

Chen Shaohu Lin Xingchen Feng Zijie Jin Xinxin.

#### **Title of Project:**

Magnificence of C Major: Piano Assistant

#### **Project Overview:**

### Please describe your project for a non-technical audience. How does it address the theme of education?

Our project is designed to assist when a beginner is practicing on the piano. It can help the beginner to get familiar with the playing, and make the practice more interesting like playing a game rather than a task. The two prime functions above are very relevant to music education.

#### Background on your team: Who are you and how did you meet?

All of us are the students of BUPT. Jin is a girl, the rest of us are guys. Chen and Lin major in Computer Science, Feng and Jin major in Network Engineering. We know each other in our college life.

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded Development invitational?

Our college encouraged students to participate in the Imagine Cup, and all of our four team members are interested in embedded systems.

#### What inspired your project idea? Was your idea difficult to conceive?

Our team members all like music. One day when we were playing a music game, we discovered it would be great if we could combine the game with real piano practice. And the idea of playing printed score was from one team member who is interested in piano but can't read scores.

#### Technology/software used:

Audio analyse, serial communication, midi file analyse, Image recognition, and so on.

## What personal or technological challenges did your team face while developing your device, if any?

The driver for device, the accuracy of audio analyse and Image recognition, the protocol of serial communication, and the conflict between participating in the Imagine Cup contest and working our college courses.

#### What has been your favorite part of the Imagine Cup competition thus far?

The moment we were told that we advanced to the worldwide final.

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

All of us are planning to take further study. But plans may be changed according to circumstances.

#### What are you most looking forward to about the worldwide finals in South Korea?

We want to know more people all over the world and getting some advice from Microsoft experts on our career. We also are looking forward to performing well in the Finals!



**Embedded** 



### China

**SEED** 



#### **Team Members:**

Huning Dai Zhou Xue Ziqing Ye Dai Tang

#### Title of Project:

CasBam

#### **Project Overview:**

Xiao Mei is a 4-year old child we came across during our group SEED's field research to several kindergartens in Beijing. Once we entered the classroom, her chipper laughter and pretty appearance quickly grasped our attention. However, we soon find it's very easy to recognize her from a large group of children, in that she doesn't frequently participate in games or sports activities like her friends do. Instead, she seldom moves from her little chair, or else she staggered along or sometimes creeps to get the toy she wants. After talking to her teacher, we got to know that she cannot even walk in a straight line, which is a typical symptom of DSI (Dysfunction of Sensory Integration).

There are on average 10% of children in every class that suffer from serious symptoms of DSI, not to mention children who have slight or moderate symptoms. What's more, lacking of relevant pedagogy or training equipments in most developing countries, children like Xiao Mei can rarely be cured in time or are just being ignored, which will prevent these children from living a normal life.

Having realized the serious circumstances in current sensory education and the importance of training or offering appropriate remedy for those children, as a team come from the largest developing country in the world, we feel we are obligated to device an intelligent sensory training system. So that's how we came up with the idea of our CasBam.

#### Background on your team: Who are you and how did you meet?

We are four undergraduate students in Beijing University of Posts and Telecommunications. We meet because of we have the same idea to participate in the Imagine cup and to device a system in order to aid the educations.

What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded Development invitational?

Students of higher grade

#### What inspired your project idea?? Was your idea difficult to conceive?

Those children who have the dysfunction of sensory integration.

Yes, we did lots of field research and we consulted lots of experts and educators in this field. After months of discussion, we finally came out with the idea of CasBam.

#### **Technology/software used:**

RFID, 3D Modeling, Pressure Sensors Plate

## What?personal or technological challenges did your team face while developing your device, if any?

The difficulties lie in the evaluation standards to determine the level of the dysfunction of sensory integration.

#### What has been your favorite part of the Imagine Cup competition thus far?

The chance of communicate with other team members and the great opportunity to travel and to join the friends all over the globe

What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

If Microsoft really loves our idea, we probably will do so.

#### What are you most looking forward to about the worldwide finals in South Korea?

The sight-seeing part as well as the communications with other teams.



**Embedded** 



### China

Tabla



Team Members: Jun Lu Fei Chen Fanggin Dai

Title of Project:

Smart Library System (SLS)

#### **Project Overview:**

As we know the library came into being with the advent of civilization. How to make use of the library as much as possible and provide the readers with the best services? If one man finds that getting a book in the library is such a convenient and easy experience, and that book is so fit for him, this will promote him enjoying the service of the library more and eventually gaining a better education for all.

Our aim is focused on tracing the books with the "smart" bookcases. The system scans the books' information in real time. Any book in the library can be located currently. There will be advices for readers on how to get them. The system can make corrections of books' positions automatically. It knows which books are wrong placed and where they are supposed to be. This will help the librarians' work. SLS can provide the readers and librarians with the best services.

#### Background on your team: Who are you and how did you meet?

We are students of Wuhan University. Though we are from different areas of China, we have the same dream which is there is a wonderful and memorable university life. It's this dream which let us get together, and the passion which makes us become good friends, and the faith which spirits us up to go till now. We believe a sincere heart will make your dreams come true!

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded Development invitational?

The three of us wanted to do something special during our college days and we wanted challenge ourselves. Imagine Cup held by Microsoft draws huge attentions around the world. Millions of students have competed in the game. We took great interest in Embedded Development that time and we finally chose the ED invitational.

#### What inspired your project idea? Was your idea difficult to conceive?

We don't think our project idea was difficult to conceive. Because finding a book in the library is really a tough experience. It has been boring us for a really long time. We even don't remember how many times I complaint about the services of the library. When we came to the idea we thought we finally could solve the problem all by ourselves. We think we finally do.

#### Technology/software used:

RFID technology, Phideget technology, Software: Visual Studio 2005, Platform Builder, SQL Server 2005

### What personal or technological challenges did your team face while developing your device, if any?

Because we were mostly engaged on the study of software, we were short of the knowledge and experience of hardware development, which brought great block to us. However with assistant of our mentor and other teachers, in our efforts, we overcame all these problems successfully, to make our dreams come true. The way is tough, the result is fine.

#### What has been your favorite part of the Imagine Cup competition thus far?

We love Imagine Cup. We were free to choose our project and make solutions all by ourselves. We have encountered many difficulties. We conquered all of them all by ourselves. We love the challenge!

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

We will do further market research based on the result of finals. If market research proves our system is feasible in the economy, we will build our system into a business.

#### What are you most looking forward to about the worldwide finals in South Korea?

We think it will be an amazing experience. We can't wait to make many new friends all over the world. It will be so interesting.



**Embedded** 



### India

#### Acumen



#### **Team Members:**

V. N. Sukheeth

C.Arun Sharma

B. Ranjit Kumar

R. Sreekanth

#### **Title of Project:**

"TWIST" - The Way I See Things

#### **Project Overview:**

Panacea is a device by which the visually challenged can perceive images through the sense of touch. This is done by providing a tactile pad which generates a tactile outline of the images. Since the user is visually challenged, an effective audible user interface has been developed. A graphics application has also been developed to work in tandem with Panacea to make learning geometry a lot easier. The device is an independent system and the complete processing required by the device is done by itself thereby reducing the need of a standalone computer for operating the device.

"Education is the most powerful weapon which you can use to change the world"

- Nelson Mandela

Going with the old adage - An image is equal to thousand words. Panacea helps in better understanding of theoretical concepts through 'image perception'.

#### Background on your team: Who are you and how did you meet?

**Sreekanth** is a fun loving guy with patience, he likes playing table - tennis and listening to music. He is never confined to books but has great interests in coding and looking forward to be an active part in more such creative projects.

**Ranjit** is a sportive personality having good insight in Business Administration; he loves driving bikes and is a fashion icon in his own way.

**Arun sharma** is a very lively and creative person. He is also a technology freak and an avid blogger; he is also interested in product design and loves giving public speeches. He is a great admirer of Steve Jobs Other than that he loves to follow the rock scene.

**Sukheeth** is an optimist possessing the qualities of leadership and motivation. Politics fascinates him and he dreams of becoming a parliamentarian and serving his country. He is a hoopster and also captained our college team.

We are students from Information Technology, M.V.S.R Engineering College, Hyderabad, India. All four of us come from the same batch. Prior to joining college we never met and came from different backgrounds but in the campus struck friendship and moved around together. Although we have diverse interests we share a common passion, a passion to succeed and to be useful to the society.

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded Development invitational?

We always felt we had a certain amount of talent in ourselves while pursuing our undergraduate course also we had a desire to be helpful to the society. Imagine Cup gave us

the opportunity to focus on how to be helpful to children who are visually challenged and the result was our participation and our project. We also felt that we would get an international exposure which would help us know where we stand globally.

We chose the Embedded Development based on our strengths and our course of study. Being students of Information Technology, we were exposed to both hardware and software and also had 'Embedded systems' as a subject in our final year.

#### What inspired your project idea? Was your idea difficult to conceive

Our inspiration for the project came from our close interaction and observation of the students for a long period of time at the Devnar School for the Blind, Hyderabad, India. Yes, the main reason being that it took us sometime to build up a level of trust and to allow us into their lives. Once this was done, it was fun to interact with them and to see them bubbling with enthusiasm. Based on their suggestions, we developed on our idea.

#### Technology/software used:

Windows C.E., Visual Studio 2005, TTS (text to speech engine), VC++, Microsoft.NET compact framework

### What personal or technological challenges did your team face while developing your device, if any?

Our main technology challenge was our lack of exposure to the manufacturing. In fact this was the most difficult part as we had to bring down certain parameters to suit the manufacturing capability of our device.

#### What has been your favorite part of the Imagine Cup competition thus far?

The tension on the day of the results and the excitement when we came to know that we were selected was our favorite part.

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

Sreekanth is planning to work with Cognizant Technology Solutions, Ranjit is planning to work with Satyam Computer Limited, Sukheeth is planning for a Masters degree in Computer Science. Arun is planning for a Masters degree in Product Design.

Yes, we are planning to work with a company that has shown interest in our project and will be jointly manufacturing the device.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to meet our judges who have been supportive of us and not to forget our competitors and members from other competitions.





**Embedded** 



#### India **DCEites**

#### **Team Members:** Siddharth Singhal

Kumar Ankit Rahul Sud

Mentor: Mr. Rajeev Kumar

#### **Title of Project:**

INDRIYAAN



INDRIYAAN, the term means the five senses of a human body. Being disabled is the absence of Indriyaan. For us destitution is also being disabled. Indriyaan is an attempt to help all disabled. Indriyaan is driven by innovation and technology, requires minimum infrastructure and is ready to implement yet no boundaries impede it. Indriyaan a pledge to help...

The system is a single entity but for the sake of convenience of explaining it in a better way we have broadly classified the whole system into three major modules, which are (a) dynamic Braille module (b) audio eBooks module (c) rural education module.

Blind education is addressed by making the system voice enabled i.e. the system takes it command in the form of speech as input. This device reads out the eBooks to the user and also displays the same on a Braille display which is dynamic in nature. The term dynamic implies that the display can be refreshed for the next display of data electronically i.e. without any manual work. This is also coverts the lectures/seminars from speech to text and then displays that text on the Braille display device.

The rural education is taken care of by targeting the main problem related to that. The main problem, which we feel, is that of infrastructure. So we built a device that can be remotely controlled using the widely broadcasted AM radio channel. Through this we eliminate the need of a teacher, which is very hard to get in the rural and remote areas. INDRIYAAN is not just aimed at the education but the overall development of those underprivileged people by connecting them to the world and providing them the much needed information about health, agriculture and social taboos.

#### Background on your team: Who are you and how did you meet?

We all are students of Delhi College of Engineering (Delhi University) pursuing Bachelor of Engineering. Siddharth Singhal and Rahul Sud are studying Information Technology and Kumar Ankit is studying Computer Engineering. Currently we are in the final year of engineering. Since we all study in same college so we had some past experience of working together on embedded systems and robotics.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded **Development invitational?**

The Microsoft Imagine Cup is a perfect platform where we can showcase our ideas and projects which we intend to develop for the betterment of society. Through Imagine Cup we dared to address real world issues, and to imagine ways to realize the goal of education for all. We worked on our ideas and identified the problems in society related to education. The solution that we thought of and our skills all suited Embedded Development and so we chose this invitational.

#### What inspired your project idea? Was your idea difficult to conceive?

Around the second week of October '06, while surfing through one of the local news channels, we came across a special report being aired. The report was on a blind student who was doing her masters at a reputed university in Delhi. As there were neither Braille books nor notes for such higher studies, she had to type her own books, while one of her family member dictated her text. This incident inspired us to build a device to help blind students get access to education. The problem of education in rural and remote areas is universal and evident much more in developing nations like ours. We thought of using the currently available infrastructure to cater this problem.

Our idea was not at all difficult to conceive and we believed in our idea throughout. However, the idea was difficult to implement as quite a lot of features were to be integrated in a single device.

#### Technology/software used:

The technologies used in our device are as follows:

- Text to Speech and Speech to Text
- Vibrating Actuators (in dynamic Braille).
- · Amplitude Modulation (channel of communication).

The software used for the development are:

- Visual Studio 2005 IDE
- Platform Builder for WinCE 6.0
- WinCE 6.0, etc.

#### What personal or technological challenges did your team face while developing your device, if any?

It has been a long journey of ups and downs which eventually turned out as a lifetime learning experience. The deadlines somehow always coincided with the college exams, eventually the dates of the finals are also with clashing with our placements and two of the team mates are themselves the placement coordinators of their respective departments. Development of a commercial project and working throughout the various stages of product life cycle, posed practical difficulties.

We would like to take the opportunity to thank Microsoft for this exposure that has helped us evolve into better scholars and budding entrepreneurs with Indriyaan.

#### What has been your favorite part of the Imagine Cup competition thus far?

The best thing about the Imagine Cup is the freedom and power to imagine, necessary tools and devices to implement our ideas into a real world product.

Also we are guite excited about the trip to South Korea, which we take as a reward.

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your

We wish to take forward our idea and help the society. We look forward for help and support from organizations like Microsoft and BT in carrying forward our innovation.

We look forward to capture the potential fields and markets analyzed. As INDRIYAAN is ready to implement with minimum infrastructure requirement, so the team is sure about the commercial acceptance of our project.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to winning the Imagine Cup and bringing to the world the gift of education through Indriyaan. We hope this is going to be a great experience for us where we will meet the leaders in the industry as well as the new generation of technologists from different places.





**Embedded** 



### India

#### **Dimensions**



#### **Team Members:**

Archit Jain Ishan Bishnoi Ved Surtani Vishwas Jain

#### **Title of Project:**

Vibhava

#### **Project Overview:**

The experience at an institute of higher education is not limited to bookish knowledge. It is a much richer mixture of knowledge that is gained by one's interactions with colleagues and faculty. For such effective communication, the speechless have to fall back on sign language which is not familiar for all. Our aim is to give the speechless a new tool that allows them eye-to-eye communication with their peers. This tool is a glove-based device with the combination of the thumb's actions giving the input keys (configurable by the user in any language and any order). These keys, then, form the data that proceeds to the processor and is converted into speech that is output from speakers. All this is done in a portable unit wearable by the user.

#### Background on your team: Who are you and how did you meet?

We are fourth year students of Bachelor of Technology (ICT) course at Dhirubhai Ambani Institute of Information and Communication Technology, India. We have done a few projects together during our courses and like to work together.

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded Development invitational?

We entered the Imagine Cup with a notion of experience a global competition and interacting with our counterparts around the world but, of course, a lot of work faced us before this stage. We chose the Embedded Development invitational as it gave us an opportunity to truly bring together various engineering principles in hardware as well as software.

#### What inspired your project idea? Was your idea difficult to conceive?

The project was conceived when we considered the plight of specially-challenged people who want to pursue higher education. We decided to make a device that could help this section. We had, initially thought that we would develop this tool for Dyslexic and autistic children who could input numbers through a glove-based pad. But, then we realized that our device would be more helpful to the speechless.

#### Technology/software used:

- Rational Suite
- Visual Studio 2005
- AVRIib and AVRIibC Libraries
- Minicom
- Text to Voice Engine(undergoing)

## What personal or technological challenges did your team face while developing your device, if any?

The most challenging task was implementing a method to save power by powering up one wire at a time and powering on the fingers with a high frequency so that the user feels that all the fingers are powered on simultaneously. This took quite some effort.

#### What has been your favorite part of the Imagine Cup competition thus far?

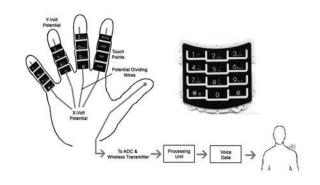
Our favorite part has been the penultimate round where we were forced to think about the device on economic and comparative bases along with the technical aspects. This was a new experience. A sizeable amount of work also went into for collecting data about the speechless.

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

We might try to market the tool but we, certainly, do not wish to stop at the count of one. We aim to make many more devices at affordable prices. Then, we would be able to set up a good business.

#### What are you most looking forward to about the worldwide finals in South Korea?

The interaction with our peers and the pioneers of the technical industry from the world over is what we are most looking forward to.





**Embedded** 



### **Poland**

Aero@PUT



#### **Team Members:**

Piotr Kryger Mikolaj Malaczynski Jakub Pawlowski Piotr Slezak

### **Title of Project:** enlEYEght

#### **Project Overview:**

enlEYEght is an accessible information system enabling early diagnosis of reading problems and supporting effective therapy. Specialists estimate that 15-20% of the population have deficits in reading. The most discussed reading difficulty is dyslexia - it is a complex condition which impedes the reading learning process.

People suffering from dyslexia find it much more difficult to assimilate any written text. If dyslexics are not limited by the process they endure, they could have higher than normal intelligence, and extraordinary creative abilities. Students suffering from dyslexia are often unsuccessful at school, become unwilling to learn, and sometimes even try to compensate for their low self-esteem by misbehavior. However, given appropriate help they could succeed.

enlEYEght is the first portable system providing reading ability assessment in the classroom environment and providing remote expertise even in rural area schools.

#### Main features:

- Early diagnosis of the reading disorder among children with an instant therapy advisory (based on results of lexical tests and eye movements analysis)
- Teleconsultations with dyslexia specialists
- Researches on reading disorders on the global scale
- Latest technology reaching out to the problem as of yet unsuccessfully approached (dyslexia screening checkups are now unavailable to vast majority of pupils)

#### Background on your team: Who are you and how did you meet?

Two of us have known each other since secondary school. The rest of us met at our university. We study at Poznan University of Technology so our interests focus obviously on technology: computer science and electronics. In our leisure hours we play tennis, football, basketball, practice martial arts, skiing and sailing. Two of us love playing the guitar.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded Development invitational?

The Microsoft Imagine Cup is a great challenge, and we do like the thrill of competition. We chose the Embedded Development invitational as the best opportunity for those who would like to reconcile their passion for electronics and software.

#### What inspired your project idea? Was your idea difficult to conceive?

Reading is the most frequently used ability we gain during our school years - first we learn to read, and then we learn by reading. Moreover, its significance continues after completing education. It's hard to imagine the existence of modern society without written documents. This simple observation led us to the identification of the most common reading disorder - dyslexia. The profile of our project as well as its functionality results from endless discussions of our team members with dyslexia specialists.

#### **Technology/software used:**

- Eye tracker used for recording eye movements during reading gathers the data from infrared sensors
- Dyslexia checkups are conducted on a PocketPC, the results are temporarily stored for instant analysis on eBox-2300 and then transferred to the server managed by Windows Server 2003 with Microsoft SQL Server database.
- Wireless communication between the devices utilize Bluetooth and Wi-fi technology

## What personal or technological challenges did your team face while developing your device, if any?

Each part of a project was connected with some unexpected situations - deadlines coming to fast, some bugs from nowhere, lack of concentration after several sleepless nights etc. :) However the most difficult thought we had had to become reconciled with was the fact, that we had to spend our warm and sunny spring break in the laboratory writing the final report.

#### What has been your favorite part of the Imagine Cup competition thus far?

Obviously the thrill while waiting for the results of the 2<sup>nd</sup> round of the competition.

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

We plan to find a sponsor for some long-term tests in several primary schools. This phase should allow us to improve now working prototype to a fully-fledged product. Afterwards we could commercialize our solution.

#### What are you most looking forward to about the worldwide finals in South Korea?

We believe it would be a great opportunity to meet students from many countries having similar passion in technology. Exchanging ideas and striking up an acquaintance with other competitors might be an unforgettable experience. Apart from that South Korea is an exciting country!





**Embedded** 



### Romania AETHER



#### **Team Members:**

Holmanu Bogdan Tanasa Bogdan Vranescu Alexandru Vuza Ionel

#### **Title of Project:**

**Networked Braille Learning Environment** 

#### **Project Overview:**

We are aiming at improving the Braille reading learning process by providing specially designed refreshable Braille displays that will be used both in a dynamic classroom environment, based on a wireless network complying to the IEEE 802.15.4 standard and by home users as a stand alone device. A set of simple Braille lessons comes with the display ensuring a straight forward approach to learning the Braille set of characters. The design of the displays and of the software application structure is meant to provide easy learning and tactile sensibility development for the users.

#### Background on your team: Who are you and how did you meet?

We are students in the fourth year at the Faculty of Automatic Control and Computer Engineering, part of the "Gheorghe Asachi" Technical University of lasi. We are all in the same study group since the first year and we got to know each other very well and become friends. Our group has bounded in time as we developed several projects together both for school purposes and in our free time.

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded Development invitational?

Microsoft Imagine Cup seemed the perfect opportunity to evaluate our skills by competing with opponents from all around the world in a respected international challenge.

Our decision to participate in the Embedded Development Invitational was based on our background knowledge and training, as well on our future career development plans.

#### What inspired your project idea? Was your idea difficult to conceive?

The idea behind our project was developed in a series of team brainstorming sessions with the help of our mentor. The concept came to us after analyzing the technologies and market products that addressed in a certain degree the Imagine Cup Embedded Development competition theme. Also the original idea gained a more refined form after meeting with the students and teachers at the Tg. Frumos College for the visually impaired and taking a more profound look into the Braille user world.

#### Technology/software used:

The hardware/software technology included in this project comprises:

- eBox
- Motorola HCS08 microcontroller with a radio transceiver/receiver (Freescale EVB-13192 ZigBee development board)

- Microchip PIC16F876 microcontroller (SBC876)
- Futaba servomotors (analog/digital, 90° /180° step angle)
- Microchip MPLAB IDE
- Hitech PICC LITE
- PICdownloader
- Freescale CodeWarrior IDE for HCS08
- WinMerge
- Platform Builder for Windows CE 6.0
- Visual Studio 2005

## What personal or technological challenges did your team face while developing your device, if any?

Any project development poses different unexpected challenges both in what it concerns technology and in team managing.

If is to look back and point the single hardest developing task we faced, that would be 'to keep' the developed project as simple and robust as possible.

#### What has been your favorite part of the Imagine Cup competition thus far?

The best part in participating in the Imagine Cup competition thus far would be the unique opportunity to compete in a challenging international contest against motivated and well trained teams from all around the world. Progressing to this phase of the Embedded Development Invitational has gave as invaluable experience as the team bounded end each member found a new dimension of self confidence.

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

Translating our idea into a successful business represents a more challenging task than the actual development. After the finals we are determined to keep developing our products and before reaching a business perspective we want to help our generous helpers in the Tg. Frumos College by providing them with a working Braille classroom environment.

#### What are you most looking forward to about the worldwide finals in South Korea?

There is no doubt that we are most expected about meeting with the other finalists and the organizers. We are eager to see the other teams that have made it so far and to personally meet the people who made all this possible. It will also be exciting to visit one of Asia's finest capital cities.

**Embedded** 



### Romania TechOwls



#### **Team Members:**

Mihaela Monica Bugeanu Alexandru Calotoiu Liviu Mihail Ciortea Teodor Alexandru Stoenescu Mentor: Decebal Popescu

#### **Title of Project:**

S.M.A.R.T. - **S**ystem for **M**onitoring exams, **A**utomatic evaluation, handwriting Recognition and information Transfer

#### **Project Overview:**

With the aid of electronic pens, that resemble traditional pens, handwritten text is collected from students in a classroom, transformed into typewritten text and forwarded to the teacher's computer. The teacher is then able to monitor the students' progress as well as detect any similarities between papers, a clear sign of cheating in case of an exam. After the exam the project aids the teacher with the evaluation process. Data is subsequently forwarded to a Web server from where it can be accessed from all around the world.

Our project is an enhancement brought to the standard education. With the aid of our project participants in the educational process can exchange information in an easy, reliable and understandable manner.

#### Background on your team: Who are you and how did you meet?

Once upon a time there was a kid named Teodor a.k.a. Doru. He went to the German kindergarten. Amongst other children in his class there was Alex with whom he quickly established a beautiful friendship. In elementary school they were in same class with Monica. Teodor became acquainted with Liviu in high school as they competed in many programming contests together.

At the moment, we all are students at the "Politehnica" University of Bucharest.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Embedded Development invitational?

Our mentor told us about the "Windows Embedded Student Challenge". Monica wanted badly to participate because of her competitive spirit. At the same time Teodor spoke to Liviu about the competition who was also enthusiastic. Alex came with the winning idea. It was natural, given our long history together, for us to form a team and compete against teams all over the world.

#### What inspired your project idea? Was your idea difficult to conceive?

Alex complained about the fact that sometimes even he couldn't understand his handwriting, not to mention the fact that it was totally undecipherable to others. This was the main cause for penalization. Trying to escape this situation, he designed our projects start. From there it was a piece of cake to develop it into a nice, big, healthy project that we are very proud of.

#### **Technology/software used:**

• Pegasus PC Notestaker

- Bluetooth
- Windows CE 6.0 and eBox2300 (the competition gear)
- Microsoft Visual Studio 2005 and Microsoft.NET Framework
- HTK Framework

## What personal or technological challenges did your team face while developing your device, if any?

We all had to improve our programming skills, learn how to do thorough research and most of all to respect deadlines.

#### What has been your favorite part of the Imagine Cup competition thus far?

Receiving the competition gear was fun. Team meetings are also fun as they tend to have a cordial note.

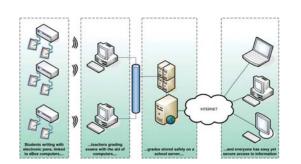
## What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

First of all we would like to take a vacation, far away from computer science. However given the positive feedback we received from school principals we would surely like to further develop our ideas into a business.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to experience the feel of an international contest and also getting acquainted to a culture that is unknown to us, yet.







The Web has redefined how people inquire, learn, and organize information. There are now endless possibilities for individuals to become exposed to ideas, movements, curiosities, topics, and more. The Web enables a whole new realm of educational possibilities. This invitational calls on students to use the Web to create innovative educational sites for their peers using ASP.NET and related technologies.







### China FrontFree Studio-Web



#### **Team Members:**

Jiasheng Guo Weining Sha Xia Xiao Zhenda Zhao

Title of Project: Minovation

#### Background on your team: Who are you and how did you meet?

We are all students at Beijing University of Technology, as well as members of Frontfree Studio. Jiasheng Guo is our team leader, Weining Sha and Xia Xiao are programmers, and Zhenda Zhao is our interface designer.

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Web Development invitational?

We think the Microsoft Imagine Cup can give us a chance to make our ideas come true. We decided to participate in the Web Development invitational in order to build a Web site that enables students to get knowledge easier and faster.

#### **Project Overview:**

First: Project Minovation is a Wikipedia site like knowledge base. Knowledge is organized by 7 subjects: Mathematics, Society and History, Natural Science, Technology, Art, Literature and Gym. Students can search for the information they want on the site .The knowledge can be recorded not only in the form of articles, but also in images and videos, which could make education more visual.

**Second**: Project Minovation provides a personal dynamic Web site building functionality. Every visitor can register and get his or her an Web site. It can be a Wikipedia, enabling users to show all of their ability and wisdom. The participation of people with all sorts of abilities will enrich the knowledge base as an encyclopedia, which has strong practicability. Also the site can be a users' blog to showcase them on the Internet.

#### Technology/software used:

- Microsoft.NET Framework 3.5
- Visual Studio 2005 Team Suite
- ASP.NET AJAX
- Silverlight
- AOP

What has been your favorite part of the Imagine Cup competition thus far? Sharing ideas with students and technology fans in other countries and areas.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

Certainly we hope our project can eventually operate as a real business.

What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to performing our best work and winning the first prize.









### China Lingjing



Team Members:

Shuai Zheng Jian Lin Tianyi Qian Chaoyuan Feng

### Title of Project:

Knowledge 360°

#### Background on your team: Who are you and how did you meet?

Jian Lin, who comes from the School of Computer Science and Technology, is in charge of the most basic architectural work of the Web site, mainly the back end of the Web site, including our Web service and database. He has been interested in computer programming and Web development since senior high school, and has written several programs based on SQL Server. Tianyi Qian, who majors in Electronics, is in charge of some of the interface designs and is currently studying on a photo-processing math model. He has taken part in the ICM, and likes doing math modeling related work. However, he is also fond of making some Flash and interface designs.

Chaoyuan Feng, who hails from the Department of Physics, is in charge of designing the interface, collecting photos and preparing the English material. He has lived in Sweden for some years, he is well-read in history and geography, and provides the cultural part of the project.

Shuai Zheng, who comes from the Department of Optical Electronic, is the leader of team Lingjing. He is in charge of managing the team, deciding the theme of the Web site and building the database. Although he loves his subjects, he spends a lot of time reading history and biography. One day before the Round 1 deadline in the Imagine Cup, he came up with the idea to show historical materials in an interactive panorama system online, in order to make a better historical education available to more people in the world. After talking with the other teammates and our teacher, Dongdong Weng, we formed the team Lingjing and started designing the Web site knowledge 360° Web site.

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Web Development invitational?

Comparing to other competitions like Challenge Cup or the ICM competition, we feel the Microsoft Imagine Cup can provide us with a wider stage to communicate with people who have the same interests as we have. It also gives us more freedom to put our thoughts into practice. As the theme of 2007 years' competition, we consider that the Web site is most suitable way to make our work to serve more people around the world.

Project Overview: Please describe your project for a non-technical audience. How does it address the theme of education?

The Knowledge 360° Web site can change the boring and plodding historical readings into

intuitive and clear games, where we use movie clips, simple beautiful graphics as our main language. Thus the young, who are familiar with Internet, on-line chat, video and computer games, will find something of interest in history. However, the senior or the disabled can use our system to go "sightseeing" comfortably in their couches.

In all, we consider our project can serve as a better education Web site for more people around the world.

#### Technology/software used:

Microsoft Visual Studio 2005, Microsoft SQL Server 2005, Adobe Flash, ASP.NET, Web Service.

#### What has been your favorite part of the Imagine Cup competition thus far?

I think the most favorite part of the Imagine Cup competition is the intense teamwork, the experience that we four guys work together for the same goal.

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

We may, but the project needs more polishing, and we need business experience and funding.

#### What are you most looking forward to about the worldwide finals in South Korea?

China is an ancient country with a very diverse cultural landscape. We wish to show the world our rich culture and improve history education. We also wish to make more friends with like-minded people from different parts of the world. Last, but not the least, we really look forward to sinking our teeth in a South Korea style bibimbap while enjoying the beautiful Korean scenery.









### France

APB



#### **Team Members:**

Thomas Albisser Pierrick Blons Sebastien Lam Benjamin Talmard

Title of Project: Srooba

#### Background on your team: Who are you and how did you meet?

We are four students of Efrei, a leading engineering school in IT and Management. We met thanks to our school associations. For example, we all worked for the junior-enterprise SepEfrei and each of us are involved in the official Microsoft Student Club: Efrei Microsoft.

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Web Development invitational?

Since 2005 in Japan, we followed the competition and encouraged the French teams. This year we asked ourselves: "If they can do it, why can't we do it too?" We decided to choose the Web Development invitational in order to improve our skills in ASP.NET, Microsoft Ajax, Silverlight, but also design, maintainability and accessibility.

#### **Project Overview:**

"Imagine a world where technology enables a better education for all." Nowadays, an essential knowledge is foreign languages. For example, knowing English is a strength in every day life in "developed" countries. But it is also a great opportunity in emergent countries... That's why we chose in this project to try to develop education of languages for all.

A lot of solutions exist on the market; we want to innovate with a particular forgotten aspect of learning, the discovery of foreign countries. Indeed, when you want to learn a foreign language, one good method is to pack some luggage, and to go discover another culture, another history, and so on in another country. Thanks to Srooba you will be able to do so without having to leave your home.

#### Technology/software used:

- Microsoft ASP.NET
- Microsoft Ajax
- Microsoft Silverlight
- Microsoft Visual Studio 2005

#### What has been your favorite part of the Imagine Cup competition thus far?

June 15<sup>th</sup>, the day when results of the second round were published was very exciting for us. We spent each second that we could online in order to consult the leaderboards. When we saw our name on the top, the pressure went down... Now, the pressure is building every day, as we are waiting for the worldwide finals!

### What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

When we designed Srooba, we tried to do something new, something innovative. It is why Srooba seems to be the only solution which tries to answer the language problem by this way. We think that it would be crazy to drop this concept just after the final. Furthermore, our school is ready to help us and to give us time to build a business with Srooba. So yes, we will do it!

#### What are you most looking forward to about the worldwide finals in South Korea?

The most interesting aspect of this final is the international aspect. It is the first time that we travel so far in an unknown country. It is the first time that we are involved in something which brings together Korean, American, Mexican, Indian, Chinese, French and so on... We are ready to learn and discover from each of the participants!

You can find screenshots of our project in this post: http://blog.srooba.com/post/Screenshots-of-Srooba.aspx









### Ireland

#### **Red Dawn**



Team Members: Mohammed Al-Tahs Marouf Azad

#### Title of Project:

An Online Collaborative Development Environment (OCDE).

#### Background on your team: Who are you and how did you meet?

Both team members are students of the School of Computing, at the Dublin Institute of Technology (DIT). Mohammed AI-Tahs has just finished his Bachelor's Degree in Computer Science. Although originating from Yemen was born and raised in the United Arab Emirates. His keen interest in bleeding edge technology and software development had led to his move to Ireland, in pursuit of a degree in Computer Science. His skills are specialized in software engineering, Web development and databases. Besides possessing strong technical skills, Mohammed is a logical thinker and enjoys tackling complex problems innovatively. He is a talented chess player, and his hobbies include soccer, video games and travelling. Marouf Azad is a final year student of DIT in Computer Science. He was born in Afghanistan but spent his childhood in Iran. After finishing his secondary school in Iran, he has decided to continue his studies in Ireland. Along with his technical skills and his computer based studies, he has a very strong affinity in poetry and philosophy. As his first collection of poetry is being published in Persian language, he is also involved with writing articles for different magazines and online sources. Both team members met randomly in DIT, during our college years.

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Web Development invitational?

We found out about the Imagine Cup earlier this year when Microsoft representatives presented it in our college. The Imagine Cup appealed to us, as it allowed students from all over the globe to compete in delivering the most suitable solution for a given theme; plus we love competition. We figured that a Web site is truly the most universal resource, as it can be accessed by any computer that is connected to the Internet. Also, being the enthusiastic Web developers we are, it was our natural reaction to take part in the Web development challenge. We also had a keen interest in taking part in the "Photography" competition, but the Web Development challenge kept us busy enough.

## Project Overview: Please describe your project for a non-technical audience. How does it address the theme of education?

Our project is the first of its kind. It involves the development of a Web site that teaches students how to write computer programs. It provides a system that allows users to create programs online, following internal/external tutorials with very simple steps.

Education is a very serious matter, as it builds the foundations of future generations. Especially

when it comes to teaching computer programming, it requires expensive, sophisticated and hardware intensive software's, which can't be afforded by most students in 2nd and 3rd world countries. In addition, they are substantiality difficult to setup and use.

Our Web site offers a free, online version of those systems that allow users to write programs and document them online. Additionally, a feature that no other system incorporates, it allows for cooperative and collaborative learning, by enabling users to share their work with each others. The system works effectively, regardless of the user's hardware platform, making it very accessible by students in 2<sup>nd</sup> and 3<sup>rd</sup> world countries.

#### Technology/software used:

We used the following technologies and languages to develop our Web application - ASP.NET, C#, JavaScript, XML, AJAX and SQL.

We used the following software to develop our Web application: Visual Studio 2005 Professional Edition, SQL Server 2005 Developers Edition, SQL Profiler and Fiddler HTTP Debugger.

### What has been your favorite part of the Imagine Cup competition thus far?

The entire experience has been just fantastic! Other than the fact that we get to fly to Seoul, during the past several months we learned a great deal in developing with Microsoft's products. Additionally, this experience had expanded our horizon in several other aspects of project development; such as team management, marketing and etc.

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

Since the day we started planning out our idea, we decided to continue developing it into a real product, even after the Imagine Cup finals in South korea are over. Due to the fact that our idea can be applied into several different areas, we are seriously considering building it into a business, after its completion.

#### What are you most looking forward to about the worldwide finals in South Korea?

Of course, besides touring the country and meeting with the other finalists, we are eagerly looking forward to present our solution to everyone in the worldwide finals.

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Web Development



### **Mexico**

Team Dreamer



My Class 2.1



### Background on your team: Who are you and how did you meet?

Initially we were four Science Computer Engineering students but for some personal reasons the rest of the team members were forced to leave the competition even after several months of work, I'm the last survivor; nevertheless the hope to make the difference never disappeared. This makes it clear that the Imagine Cup finalist are students with courage to follow ahead, trusting our own potential and with a little luck in the pocket.

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Web Development invitational?

Hope! The Imagines Cup values are inspiring and motivate you to achieve personal success. The idea of building a better world using the Internet is an innovative and original way to phrase these values. For that reason we chose the category of Web Development.

#### **Project Overview:**

The main objective of this project is to disclose the Millennium Development Goals agreed in 2000 by the United Nations and fight the functional illiteracy while we are using the Web site. The project promotes and elevates the individual's conscience on the Millennium Development Goals, in addition allows to the users to apply their knowledge to solve real-life situations in relation of the eight MDG's objectives, with easy, fun and useful information provided in the Web site.

#### Technology/software used:

We decide use just Microsoft.NET Framework 2.0, AJAX Technology, SQL Server 2005 and Visual Studio 2005 family considering world-wide Internet users capabilities.

#### What has been your favorite part of the Imagine Cup competition thus far?

The Experience, to participate in the biggest world's student competition fills us of knowledge that hardly can be obtained in a classroom, we meet students of other countries, we applied previously acquired knowledge and show us different perspectives according to other countries and we learned to consider aspects that we didn't know in the Web Development process.

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

Yes, this project will be continued and improved for the next year's Imagine Cup competition. We did not define the category yet that we will compete next year. We do have the motivation and will to take our project and develop it as a business.

#### What are you most looking forward to about the worldwide finals in South Korea?

Everything! We have already won, to have the chance to meet all the categories' finalist and judges, share experiences, learn more from others, of course defend the current leader's board place and try to jump to the first place. And walking around in South Korea will be cool!









### Singapore

### **Accelerators**









**Team Members:** 

Leong Wei Kiat Wong Kai Bin Muhammad Rohaizad Bin Abdul Rahim Shirley Tung Xue Li

Title of Project: iPhysics

#### Background on your team: Who are you and how did you meet?

We are students from the Institute of Technical Education, Singapore (hereafter referred to as "ITE"). ITE, a statutory board under the Ministry of Education, is a post-secondary institution that provides pre-employment training to secondary school leavers and continuing education and training to working adults.

ITE's education model of One ITE System-3 Colleges, encourages Hands-on, Minds-on', and Hearts-on' learning at the ITE Colleges and allows us to acquire the knowledge and skills to be independent-thinkers and flexible practitioners, with a passion for lifelong learning and values as caring and gracious Singaporeans. The ITE Web site can be found at http://www.ite.edu.sg link. The four of us are currently pursuing the Higher National ITE Certificate Programme in Information Technology, offered by the School of Info-Comm Technology at the new mega ITE College East campus. More details about our course can be found at http://ce\_sict.ite.edu.sg/sict link.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Web Development invitational?

Our lecturer introduced this competition to us in the class, a subject we were then taking? "Web Applications Development". The subject comprised of topics including Web Design, as well as JavaScript and ASP.NET development.

He encouraged us to participate in the competition as a form of putting our knowledge learned in class to greater use, and at the same time, broadening our knowledge scope that transcends the level of the school curriculum. We were excited. Also, the prospect of travelling to South Korea to meet other contestants and showcase each other's works triggered our interests and enthusiasm. We were also hoping to use this as our portfolio, when we pursue our higher education / seek employment.

#### **Project Overview:**

Our solution aims to provide opportunities for our audience to make connections between physics and technology. Integrated with animations and interactive activities, we hope to stimulate the audience's interest in demystifying the mathematical background needed to apply physics to create realistic motion for digital and media content. The common areas, in which physics are widely used to simulate realistic movements on digital content, include:

Navigation systems

• Interface / Page transitions

• Games

Animated Films (2D / 3D)

Our product also includes innovative features: 1) an intuitive Bookmark feature allowing our learners to track their learning progress, 2) a Contributions section allowing the learning community to apply what they had learnt by contributing their own works / experiments, 3) and an **Administrative Panel** that allows ease-of-maintainability of the platform itself.

It addresses the theme of education because, through this platform, students or learners who aspire to become content specialists (e.g. Animators or Multimedia Authorers) can use our site to learn and understand how realistic motion can be created on digital content, essentially by applying the law of physics.

#### Technology/software used:

- ASP.NET
- Microsoft SQL 2005
- SQL Stored Procedure(s)
- Adobe PhotoShop CS2, ImageReady CS2
- Adobe Flash 8.0

- Microsoft Visual Web Developer Express
- SQL Server Management Studio Express
- JavaScript
- Adobe Illustrator CS2

#### What has been your favorite part of the Imagine Cup competition thus far?

Realizing our end product that we had brainstormed together, under the tutelage, sound advice and critique from our mentor, **Mr. Martin Leong**. We were elated when it was up-and-running, when uploaded to the competition site. We would like to add that through this competition, we had indeed attained a higher level of learning because, by meeting the needs of attaining the 5 factors of 'Reach, Accessibility, Innovation, Usability, Maintainability' within our application, it had allowed us to grasp new knowledge and venture unchartered topics.

## What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

This competition has opened our eyes and set clearer goals on what we want achieve later in our education, as well as career pursuits.

During our development phase of the competition, each of us had a dedicated role to play; from U.I. and Grahpic Design, Animation to Programming and Web Authoring. In doing so, it had allowed us to see our strengths, potential and had crystallized our decision on our area(s) of interest / pursuit in terms further education, after we graduate from ITE.

Indeed, we look forward to realizing our idea(s) into a business plan. We hope to include more intelligent features to our application, transforming it into a full-fledged e-learning platform, capable of accommodating more subjects, and catering to a broader learning community. It would be icing on the cake if our product is spotted as commercially viable and worth further-investing in.

Microsoft's Imagine Cup has provided us with a great platform to learn and enhance our technological skills. At the same time, ITE has given us immense support by providing us with unlimited resources and encouragements to reach our goals. Ideally, we hope that our efforts will pave new opportunities (collaborations and industrial projects) between Microsoft and ITE, eventually benefitting the next generations of aspiring technological students.

#### What are you most looking forward to about the worldwide finals in South Korea?

We look forward to meeting all the contestants and seeing their works, including those from other contest categories. We also look forward to Microsoft revealing its upcoming and latest products and technologies. We are sure that it is going to be an awesome spectacle throughout the event. More importantly, we look forward to bagging an award from the competition, because it would mean that our work is honored and our efforts are recognized by Microsoft and the rest of the world.





Imagine that you are the only one that can save a person, a city, or even a nation and that you can use the right combination of strategy and programming skills to do this. The Project Hoshimi Programming Battle invitational brings to life the world of Professor Hoshimi and his faithful crew of scientists and programming experts in a fantasy of life and death. This popular competition uses a background story, comic style graphics, and very real challenges to test the skills of programmers everywhere and allow them to compete, directly online, with people all over their nation and eventually the world to see who has the fastest program to save the day. In Project Hoshimi - Programming Battle, you write the code representing the behavior and the strategy of a team of characters going through different types of missions. The results are not only fun to create but also fun to watch as the programs play out in a virtual 3D environment for all to see.







### Argentina OIA



**Team Members:**Pablo Gauna,
Nicolás Alejandro Rodríguez Vilela





### Czech Republic GoldFusionTeam



Team Members: Imrich Živèák, Lukáš Perùtka

#### Background on your team: Who are you and how did you meet?

We met during the first year of high school in Hogar Naval Stella Maris ET N° 37, which is a prestigious public school. We became friends because there are lots of things we have in common. The school has opened the window of technology to us and during our 2nd year we had our first introduction to programming languages through Professor Alberto Vigevano who was incredibly helpful during our first steps in this business. Some years later, Pablo obtained his first great achievement: to represent Argentina in the International Olympics in Informatic 2006.

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Project Hoshimi invitational?

During our 5th year our professor Jorge Romero showed us the proposal of Microsoft Argentina (Gaming.NET) which is similar to the Imagine Cup and we won the first prize in this competition. The coordinators of Gaming.NET (Pablo Michelis and Alejandra Frisoni) encouraged us to participate in Imagine Cup. Our parents and professors' encouragement helped us to become finalists.

#### What has been your favorite part of the Imagine Cup competition thus far?

The best part of the competition was the opportunity to express our imagination to the maximum limit. We know now that everything is possible. We have met lots of interesting people and we love the opportunity to measure our skills with the best of the world.

#### What would be your alternative ending to Project Hoshimi?

We believe that PH allowed us to understand our limits in order to grow. Our imagination, strategies and methods are now stronger. It has opened the doors to our future through the learning and expanding of our own limits.

#### What do you plan on doing after the Imagine Cup finals in South Korea?

In order to give back to our community and to the school, we've decided to coach our classmates about Olympics in Informatics, Gaming.Net and Imagine Cup. After competing in South Korea we are planning to continue with these initiatives. We would like to add that Pablo is travelling to Croatia this year to represent Argentina in the Olimpic in Informatic.

#### What are you most looking forward to about the worldwide finals in South Korea?

The most important thing for us about the final in South Korea is to have the chance to meet interesting people-our competitors and people from other categories, and all the people who made it to happen. We believe that this experience is about to change our lives: to have the opportunity to experience a culture so different is a unique experience. We would like to wish luck to all the competitors in the Imagine Cup, and give a great thanks to our family for all the support, to our faculties and to Microsoft Argentina who introduced us to Project Hoshimi through the Gaming.NET initiative.

#### Background on your team: Who are you and how did you meet?

Imro: One morning somebody rang at my bell at the dorms. I opened the door and my new roommate, Lucaso was there. Since then we have been roommates for two years.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Project Hoshimi invitational?

We decided to take part in the PH competition when we heard about it at a Microsoft conference. It looked interesting because it is a programming battle with visualizations.

### What has been your favorite part of the Imagine Cup competition thus far?

Watching the international results, replays and of course our qualification for the world finals!

#### What do you plan on doing after the Imagine Cup finals in South Korea?

First we plan on celebrating and then we will spend lots of time finishing our diploma paper.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to seeing new interesting novel ideas coming from all over the world and to a beautiful trip.





France

**Arenium** 











**PSK** 

**Team Members:** Kamil Piechociak Paweł Podlasiński

#### Background on your team: Who are you and how did you meet?

Since we met 5 years ago, we have formed a team in our daily life as well as in all the projects that we undertake. Last year we competed in the Imagine Cup Project Hoshimi competition too!

Our skills define directly our domain of action. So, Laure, who is a third year pharmacy student, takes charge of strategic reflections and of the organization of our work. Régis, who is getting an engineer's degree in computer science, works on the technical part and builds the code.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the **Project Hoshimi invitational?**

The Imagine Cup is an international competition. Our participation in this event allows us to have incomparable human and technological exchanges and especially helps us to create contacts for our future professional life.

The skills of Régis apply directly to Project Hoshimi. Indeed, his passion for artificial intelligence technology grew in this project.

#### What has been your favorite part of the Imagine Cup competition thus far?

Last year's finals in India was an unforgettable moment. We can't wait to experience Imagine Cup 2007 in South Korea.

This year, the most remarkable moment was the French final which took place in the Eiffel Tower, a prestigious site, with famous guests and a magnificent evening.

#### What would be your alternative ending to Project Hoshimi?

What? There could be an end to Project Hoshimi?

#### What do you plan on doing after the Imagine Cup finals in South Korea?

Our team will remain committed to our project this year ands we are thinking of putting a lot into the Software Design category next year!

Régis starts a three- year degree in engineer's school this year and Laure has another four years of school to obtain her doctorate in pharmacy.

#### What are you most looking forward to about the worldwide finals in South Korea?

Gaining technical knowledge, seeing innovative projects, meeting exceptional people, experiencing unforgettable moments in a country with its own unique culture-- and why not a victory?

#### Background on your team: Who are you and how did you meet?

**Poland** 

We are studying at the Kielce University of Technology. We met there and started programming together.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the **Project Hoshimi invitational?**

We had problems with completing a four person team to compete in the Software Design category.

What has been your favorite part of the Imagine Cup competition thus far? Dunno, all the different parts were fun!

#### What would be your alternative ending to Project Hoshimi?

Whatever happens, it is a great pleasure to be in the finals of Project Hoshimi.

### What do you plan on doing after the Imagine Cup finals in South Korea?

Go back to University and get a university degree. Start a well-paying job.

#### What are you most looking forward to about the worldwide finals in South Korea?

Fun, fun, fun! A lot of new experiences, a great competition with an adrenalin rush and a lot of coffee.





Russia

h7

**Team Members:** 





Serbia

vladan.simov



Team Members: Vladan Simov



Vladimir Shymansky aka Falcon,

Igor Lizunov aka Petrovich

#### Background on your team: Who are you and how did you meet?

We are students at South Ural State University, which is located in the Ural city of Chelyabinsk. We study in one faculty, and before university we lived in the small town of Shumiha, and we graduated from the same secondary school. So, we have been friends for a long time.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Project Hoshimi invitational?

We choose Project Hoshimi because we love strategy and video games (Richard Clark), and we like programming. We think that PH is most interesting on-line Imagine Cup Competition and we want to travel to Seoul.

### What has been your favorite part of the Imagine Cup competition thus far? Project Hoshimi

### What would be your alternative ending to Project Hoshimi? Pierre win

#### What do you plan on doing after the Imagine Cup finals in South Korea?

First of all, we need to sleep because there were very many nights without sleep when we developed our strategy.

And then we plan to take part in Imagine Cup 2008, because it is the best student competition (in our opinion).

#### What are you most looking forward to about the worldwide finals in South Korea?

We are very happy that we are invited to the Project Hoshimi World Final! We think that South Korea is a beautiful country because of its nature, culture, and IT industry. We want to see all of it! And we want to win of course!

#### Background on your team: Who are you and how did you meet?

I am me. I've finished the 2nd grade of Mathematical High School (in Belgrade). I am a guy with great ambitions, and I never give up quickly. That's enough for now.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Project Hoshimi invitational?

My Professor showed me "manga" when I was in 8<sup>th</sup> grade. I liked the whole idea about nanobots, and since then I've been competing in Project Hoshimi (2005, 2006, 2007).

#### What has been your favorite part of the Imagine Cup competition thus far?

My favorite part has been working on this project and exchanging ideas with other competitors.

#### What would be your alternative ending to Project Hoshimi?

I don't know now, have a few thoughts...

#### What do you plan on doing after the Imagine Cup finals in South Korea?

I will enjoy the summer vacation, and after that I will start preparing for Imagine Cup 2008.

What are you most looking forward to about the worldwide finals in South Korea? Meeting students from other countries.



## IT Challenge

The IT Invitational highlights the art and science of developing, deploying, and maintaining IT systems that are efficient, functional, robust and secure. In most scenarios IT professionals have a base set of tools and techniques, but still have to work through custom needs and configurations that require an intimate understanding of how all the pieces fit together. They also have to know how far the systems can be pushed before they might break. This means that every coffee shop, office environment, university, and even restaurants require these skills to run well. The IT INVITATIONAL challenges students to demonstrate proficiency in the science of networks, databases, and servers, as well as the areas of analysis and decision making in IT environments.





T Challenge



### China Zhifeng Chen



University:
Hua Zhong University of Science
and Technology





**France** 

Jean-Benoit Paux



**University:** INSA de Lyon

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the IT Invitational?

The Imagine Cup is a stage for students to show their talent and imagination. And the free trip to other countries is also an attraction for me.

In my point of view, the core of IT Invitational is HOW to use the existing software to change the world-make people work more efficiently and productively. Therefore the preparation for the IT Invitational involves a lot of Hands on Lab process, which is interesting and challenging. That's why I chose it.

#### What has been your favorite part of the Imagine Cup competition thus far?

My favorite part thus far was writing the IT Infrastructure Proposal in Round 2. I could combine all that I have learned into the proposal to convey my imaginations on that complicated IT Infrastructure. I felt so proud when I finished my proposal!

#### What emerging technology interests you? How do you think it will change our daily lives?

The Robot technology interests me so much because I always imagine about the robotic world in the science fictions or movies-robots will pick up all the housework, calculating, engineering jobs, etc... I believe it will soon come into reality.

#### What do you plan to do after the Imagine Cup finals in South Korea?

Prepare for the next Imagine Cup in Paris. I've been longing for visiting Europe for quite a long time.

#### What are you most looking forward to about the worldwide finals in South Korea?

Introduce China to these foreign comrades and invite them to visit China, especially in the year of 2008 when the Olympics is held in Beijing!

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the IT Invitational?

The Imagine Cup is a great competition, recognized for the high level of its competitors. Entering in this competition enabled me to test my knowledge and share problems and solutions. It is a worldwide competition so we can meet students all around the world. I chose the IT invitational because this is my specialty and the domain in which I'd like to work after my studies.

#### What has been your favorite part of the Imagine Cup competition thus far?

The business case study in Round 2 was very interesting work because we searched the entire Internet (especially Microsoft.com and TechNet) to discover the different products, how to use them and what they can do (I didn't know Microsoft made all these products). Then you must figure out how to combine all of this technology. It was a very good exercise and it's the kind of work I'd like to do.

#### What emerging technology interests you? How do you think it will change our daily lives?

Unified Communication (UC) and ambient computing are two technologies in which I'm really interested in. The Round 2 of Imagine Cup tackles the UC with Exchange 2007 and OCS 2007 and I'd really like to use it every day. UC will make our work very easier: no need to travel to assist meetings, access to information everywhere etc.

#### What do you plan to do after the Imagine Cup finals in South Korea?

After the final of Imagine Cup, I'll continue my internship where I'm working on Windows Server 2008 and thus prepare for Imagine Cup 2008 in Paris :) I will take some holidays too.

#### What are you most looking forward to about the worldwide finals in South Korea?

I'm very impatient to go to South Korea for the worldwide finals. I really want to know all the people, discover their projects and visit Seoul (and try Korean food!) with them.



T Challenge



**France Romain Larmet** 



**University:** INSA de Lyon (Computer Sciences Department)



What inspired you to enter the Microsoft Imagine Cup and why did you choose the IT Invitational?

Because I'm passionate about Asia and I have never been to South Korea.

Because it is my last year as a student.

Because I'm member of a group of students in my school who bring technical support to other universities in France on Microsoft-related technologies.

Because I wanted to evaluate my level with other students like me.

What has been your favorite part of the Imagine Cup competition thus far?

The second round case study (understanding the proposal requirements and trying to reply to these needs with Microsoft technologies).

What emerging technology interests you? How do you think it will change our daily lives?

All user-oriented software and devices, like Windows Home Server, the iPhone, the Apple TV, or Microsoft's Surface initiative, because they directly target the end-user and its everyday habits using engaging user interfaces.

What do you plan to do after the Imagine Cup finals in South Korea? Start working!

What are you most looking forward to about the worldwide finals in South Korea? Visiting Seoul... And possibly try to finish on the podium!

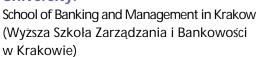




**Poland** 

Paul Wojcicki Jarocki







What inspired you to enter the Microsoft Imagine Cup and why did you choose the IT **Invitational?** 

Competing in the Imagine Cup IT Invitational has become a three-year tradition for me. Last year and this year I also signed up for the Interface Design Invitational but had too much to think about to submit anything. The IT Invitational is more aligned with what I study and do on a daily basis.

What has been your favorite part of the Imagine Cup competition thus far?

The suspense. Waiting for the results is exhilarating and then seeing your name up there on the list is just very gratifying.

What emerging technology interests you? How do you think it will change our daily lives?

You can say I'm a bit conservative. I'm more interested in capitalizing on existing technology than anything novel. If I had to predict what coming technology is going to have a major impact on our daily lives, I would have to say fuel cells (and other energy innovations) which will power our growing array of mobile electronics.

What do you plan to do after the Imagine Cup finals in South Korea?

As I am now about done writing my dissertation, I'm hoping to travel and work abroad. First, of course, a well deserved vacation!

What are you most looking forward to about the worldwide finals in South Korea?

I'm looking forward to meeting and interacting with competitors from around the globe, especially my opponents.



T Challenge



### Romania Andrei Alexandroni





### Romania Ilie Cosmin Viorel



University:
"Politehnica" University of Timisoara



University:
"Alexandru Ioan Cuza" University of Iaşi

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the IT Invitational?

I was inspired to compete in Imagine Cup by my passion for technology and because I wanted to know what my level of knowledge is as compared to other students around the world. I saw the competition as the best opportunity for me to improve my skills and to gain more knowledge, particularly on the newest technologies. The IT invitational fits best my area of interest and that's why it was my choice when I entered the competition. I think that participating in this competition can make me aware of what I am capable of doing, what my limitations are, and how to overcome them.

#### What has been your favorite part of the Imagine Cup competition thus far?

This far, the best part of the competition was the Round 2 case study. It was a challenge for me to find the best solutions to provide an infrastructure solution for a complex environment that requires certain standards of security.

#### What emerging technology interests you? How do you think it will change our daily lives?

I think one of the most interesting emerging technologies is universal authentication. A universal authentication system would improve the experience of using technology by making it easier to use, by providing increased security and also better protection for the privacy of users

#### What do you plan to do after the Imagine Cup finals in South Korea?

After the finals, I plan to continue to gain more knowledge in the IT field, and to acquire more practical experience on systems administration. I will keep on sharing my knowledge with students from my university through the Microsoft Student Partners program that I'm involved in. Also, I intend to obtain the Microsoft Certified Systems Engineer certification.

#### What are you most looking forward to about the worldwide finals in South Korea?

I'm looking forward to have an experience that will influence me in a very positive manner. I'm sure that taking part in a competition that brings together the best IT students from around the world would be very useful for my future.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the IT Invitational?

The Imagine Cup is a great opportunity that Microsoft offers for students across the world to compete and show their level of knowledge, skill, and creativity to the world. The IT challenge competition is in my opinion a milestone in the growth and development of every student, that primarily shows our current level of competence, and provides us with a way to evaluate ourselves so we can become aware of where we need to learn more, and focus our attention so we can become a competent IT specialist in the future. Of course a lot of inspiration was provided by our teachers and mentors that have offered us the confidence we need to believe in our possibilities and face of against some of the best from all over the world.

#### What has been your favorite part of the Imagine Cup competition thus far?

I have to say that the second round case study offered me the possibility to write down my vision of what education can look like in the future, and how it can be a better place for all students. I really enjoyed that part of the competition.

#### What emerging technology interests you? How do you think it will change our daily lives?

Recently I found myself involved with VoIP and Unified Communications, as I believe it will affect more people that the Internet did, after all not all the people I know access the internet on a regular bases but most of them have at least two telephones which they use daily.

#### What do you plan to do after the Imagine Cup finals in South Korea?

Well I plan on having the time to take my CCNA certification exam and begin studying for the MCSE certification.

#### What are you most looking forward to about the worldwide finals in South Korea?

I look forward to having a good time, enjoying myself and giving my best in the final.





## Algorithm

The Algorithm Invitational highlights the pure skill of one's ability to solve a problem. The discovery and use of the right algorithms, together with clever implementations and application, are building blocks upon which the whole field takes collective steps forward. In our world of limited processors and limited storage there is a dire need for this art. It is through this remarkable skill that we can attempt unimaginable feats like decoding the human genome, routing millions of packets across networks, and even searching the entire Internet. The Algorithm Invitational takes competitors through a series of brain teasers, coding challenges, and algorithmic puzzles, and seeks to engage the sharpest student minds in technology around interesting problems.







Hungary

Szilveszter Szebeni





**Poland** 

Przemysław Dębiak



School: Illyes Gyula High School (Illyés Gyula Gimnázium és KSKI, Budaörs)



University:
Warsaw University

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Algorithm Invitational?

Luckily and quite accidentally I got to know Pétercsák Richárd, last year's Algorithm finalist. After hearing about his outstanding result in India it inspired me to take part in the competition just to see what it would be like.

#### What has been your favorite part of the Imagine Cup competition thus far?

So far my favorite part of the Imagine Cup was the last few weeks of the second round. Many times I felt that I would not be able to improve my solution, but after a lot of thinking and looking at the whole problem from a different perspective, I could find something that gave a better result. When my points do improve it almost gives me the feeling that I have done the impossible although I do know that there is still lots of work to be done.

#### How do you approach challenging problems?

When I get a challenging problem the first thing I try to do is to stay calm. I try not to let myself think that I cannot do it. Afterwards I have to try and think of a solution. Usually I try to break up the problem into smaller pieces which I can solve. If this fails there is always a rudimentary solution which can be improved.

#### What do you plan to do after the Imagine Cup finals in South Korea?

After the finals I would really like to get involved in the world of Microsoft. I would like to get a glimpse of what is really going on out there and try to take part in whatever I can.

#### What are you most looking forward to about the worldwide finals in South Korea?

I am looking forward to meeting my opponents in the finals and compete against them. I've always loved to compete and this finals will be the ultimate challenge and of course I would like to achieve a good result. It will be great to meet the leaders of the software world. Lastly, as I have never been in Asia before I am also looking forward to seeing the Korean way of life.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Algorithm Invitational?

I took part in last year's Imagine Cup, and did quite well, so I thought that this could be even better. Also, I would really like to see South Korea-I don't think that I'll have such a opportunity in the near future.

#### What has been your favorite part of the Imagine Cup competition thus far?

The Imagine Cup 2006 finals in India-especially the 24 hour challenge part. I love being "stress tested"-especially when I'm not alone at this.

#### How do you approach challenging problems?

I wait until I have completely no time for solving it, and then try to do it 2 times faster than normally I would, because otherwise I'll run out of time. Of course, this is not something that I am particularly proud of, but I'm just a lazy person. :)

#### What do you plan on to do after the Imagine Cup finals in South Korea?

Get some sleep, otherwise I don't know-I hope Microsoft will help me with such a decision. :)

### What are you most looking forward to about the worldwide finals in South Korea? Women? Just joking! :)

Well, I think that almost everything (without any order)-people, competition, Korean culture, pump it up.





**Poland** 

Radoslaw Czyż





Russia

Ilya "Gribok" Grebnov



University:
Cracow University of Technology



University: Ivanovo State Power University

## What inspired you to enter the Microsoft Imagine Cup and why did you choose the Algorithm Invitational?

The first time I heard of it was during a presentation over a year ago. I had not participated in such a competition before, so I decided to try. After I familiarized myself with the different categories, I found Herbert the most interesting challenge, so I joined the 2006 Algorithm competition. It was in the middle of the competition and there was very little time left. I managed to advance to Round 2, but due to the lack of time (Round 1 absorbed me very much), I had to leave Round 2. I planned to try again this year (2007).

#### What has been your favorite part of the Imagine Cup competition thus far?

Imagine Cup-Peer Challenge. I completed development of my 'Herbert Simulator' during that competition. It was amusing to search for optimal scripts having this software as a support.

#### How do you approach challenging problems?

A piece of paper, pencil and rubber cannot be replaced by anything. Simple drawings are often very helpful during thinking over some problem.

#### What do you plan on to do after the Imagine Cup finals in South Korea?

This is unfortunately the last year of my studies, so I am not going to participate in Imagine Cup 2008: (. I guess it's time to look for some job, probably as C# or Java developer.

#### What are you most looking forward to about the worldwide finals in South Korea?

I am looking forward to meeting other participants in the Imagine Cup. I am also interested in seeing how it is all arranged-I have never witnessed such an event.

What inspired you to enter the Microsoft Imagine Cup and why did you choose the Algorithm Invitational?

It is an honor to take part in a competition held by Microsoft Corp. I decided that the Algorithm invitational was the best way to show my programming skills and experience.

What has been your favorite part of the Imagine Cup competition thus far?

All parts of the Imagine Cup were interesting. I cannot choose the most interesting one.

#### How do you approach challenging problems?

I use a system approach. I try to decompose the task into small parts and then solve them recursively.

What do you plan on to do after the Imagine Cup finals in South Korea?

I am going to finish my postgraduate studies. After that I plan to find a job in a big company like Microsoft.

What are you most looking forward to about the worldwide finals in South Korea?

My primary goal for the Imagine Cup world finals is to rank in the top three.





Singapore

**Alexander Chia Yan Sheng** 





**Ukraine** 

Roman Koshlyak



**University:**Raffles Junior College



It was challenging to pit myself against the best in the world and certainly a very humbling experience. I chose the Algorithm category because of the interesting challenges involved.

#### What has been your favorite part of the Imagine Cup competition thus far?

My favorite part definitely has been solving the numerous Herbert levels during the first round of the Algorithm Competition. Never have I had such innovative problems to solve and optimize-it's almost like a game.

#### How do you approach challenging problems?

I brainstorm for ideas in my head and scribble them down. After that I pick the most feasible or interesting solution and immediately get down to coding it. If it doesn't work out, I do an internal review and use that to help me brainstorm for new solutions.

#### What do you plan on to do after the Imagine Cup finals in South Korea?

I would be inclined to participate in more IT competitions of a worldwide scale, especially as I've enjoyed the Imagine Cup competition so much so far.

#### What are you most looking forward to about the worldwide finals in South Korea?

First, I'm looking forward to the chance to interact with the numerous brilliant students and innovative minds out there. Second, I'm excited about the chance to experience the electrifying atmosphere of the finals of an international competition of such a large scale.



University:
National Taras Shevchenko University Of
Kyiv Faculty Of Cybernetics

What inspired you to enter the Microsoft Imagine Cup and why did you choose the Algorithm Invitational?

I was too lazy to do homework, and I found an interesting task to do instead.

What has been your favorite part of the Imagine Cup competition thus far? So far, I like to be in the green zone. Good coloring Brian!

How do you approach challenging problems?

Usually, I use a huge neuron network to solve those kinds of problems.

What do you plan to do after the Imagine Cup finals in South Korea?

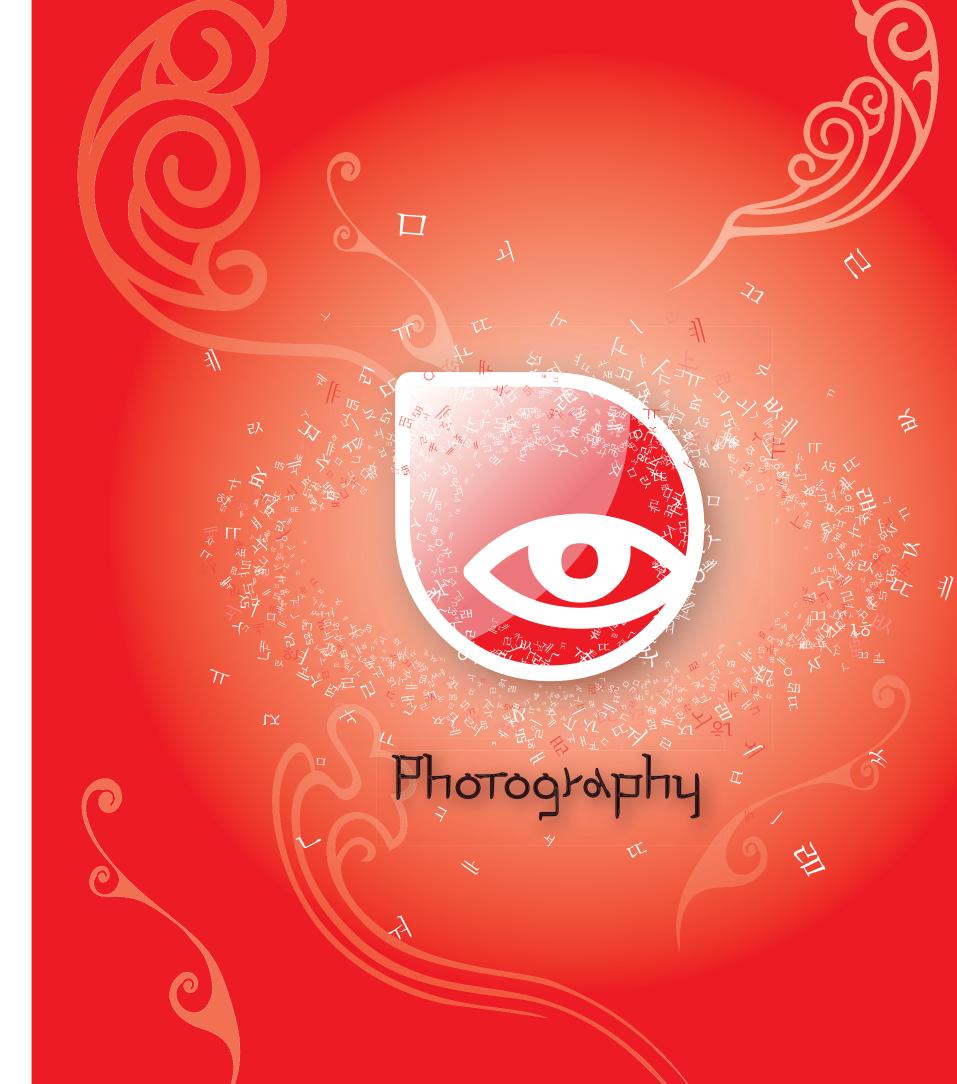
It is a tricky question, but I know the correct answer: "I will go back to Ukraine". Otherwise, I will not get a visa. :)

What are you most looking forward to about the worldwide finals in South Korea? It should be interesting just to visit South Korea.





Tell a story without using words. By using a photo essay format, students are challenged to communicate a story about education using only photos as the communication medium. Education means different things to different people. For some basic education is a ticket to a better life. For others, education means the chance to expand the boundaries of human knowledge. This year's photography competition invites students to capture a series of still photos that tell this story and draws an emotional response from their audience, to provoke thought and further discussion. Through this personal connection audiences will be more informed and emotionally compelled to take action. This year's competition challenges participants to make that personal connection with their audience. To educate and motivate audiences on how technology enables a better education for all through their eyes.







### Canada

### RobotHospital

### Team Members:

Sam Chow Nick Haffie-Emslie

#### **Title of Project:**

**Robot Hospital** 





Nowhere is the quality and effectiveness of teaching and learning more important than in the field of health care, where the smallest mistake can mean the difference between life and death. Innovative technologies are creating immersive learning environments that allow students to hone their skills with the safety of the classroom and the effectiveness of a real emergency ward.

#### Background on your team: Who are you and how did you meet?

We met through the film community at the University of Western Ontario. We both search for the meaning of life by exploring different media in art, and have yet settle with a form of expression we like. We also worked together on last year's Imagine Cup Short Film winner, Paper Heart.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Photography invitational?

Robot Babies.

#### Technology/software used:

Canon EOS 20D, Canon EF 50mm F1.8

#### What has been your favorite part of the Imagine Cup competition thus far?

The part on the Imagine Cup Web site where it said we won a trip to Seoul!

#### What do you plan on doing after the Imagine Cup finals in South Korea?

Well, we'd like to prolong our vacation in East Asia, and considering the portability of our technology (and our lack of money), you can hire us for freelance artwork!

#### What are you most looking forward to about the worldwide finals in South Korea?

Formaldehyde creature hunting in the Han River!





### Canada

#### Team Awesome

### Team Members:

Patrick Struys Ryan Marr

#### Title of Project:

Soundtimes



This competition has asked the photographers to tell a story about how technology has enabled a better education for ALL. Individuals with multiple disabilities face challenges throughout their entire lives. Many people believe that those experiencing multiple disabilities do not have the cognitive abilities to benefit from modern technologies, such as computers. This is the story of Eric, an individual with multiple disabilities who demonstrates how computers can contribute to his education and ultimately, better his life!

#### Background on your team: Who are you and how did you meet?

Patrick claims to be Trinidadian but was really born in the mining hills of Saskatoon. His dog is very old, but still cuddles tightly to him on cold August nights. He has an unhealthy addiction to sugar and sugar related substances. When asked who his favorite hockey player is Patrick boisterously replied "COCONUTS!" For the past six years Patrick has been a professional Soca DJ, frequently using Cassie Steeles "How much for happy?" to get the crowd moving. Patrick is currently defending his throne as Carnival King at Lamport Stadium. Oh yeah, he is also a photographer. Seriously.

Ryan is unfortunately not of Trinidadian descent but instead washed up on the shores of Vancouver, after Kite boarding from his home in Fiji. While gaining consciousness on the beach Ryan discovered the magic of light and shadow, which inspired him to pursue his career as a cinematographer. Ryan has been the creative spark behind many projects. However, his most critically acclaimed work can be seen in his line of Hardcore Filipino Rap music videos. Seriously.

Patrick and Ryan's paths crossed quite literally when they crashed their H2 hummers into each other while cruising the streets of Bangladesh. Their shared passion for photography and outrageously large gas guzzling (and not to mention harm to the environment.) Vehicles led Ryan and Patrick to a long lasting friendship. Seriously.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Photography invitational?

It presented a challenge. More importantly, it was a chance to tell a unique and inspiring story.

#### Technology/software used:

Canon 5D, Canon EOS film camera, 35mm Scanner, 24-70mm 2.8 L, 16-35mm L and 85mm 1.8 MacBook Pro, Adobe Lightroom and Photoshop

#### What has been your favorite part of the Imagine Cup competition thus far?

Hangin with Eric!... Oh and finding out we are in the finals!

#### What do you plan on doing after the Imagine Cup finals in South Korea?

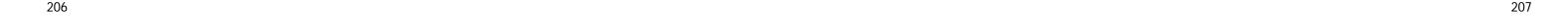
We are both going to do some travelling in Asia immediately after our week in South Korea.

Patrick is then moving to London to pursue his career in Photography and to acquire a crazy English accent of course!

Ryan is planning to Kite Surf his way to being the best Cinematographer the world has ever seen!

#### What are you most looking forward to about the worldwide finals in South Korea?

KOREAN BBQ 24-7!!... and meeting all the competitors from around the world is also cool.







Croatia **Black & White** 

**Team Members:** Aleksandar Kordić Igor Matoša

#### **Title of Project:**

Technology enables a better education for all



### Background on your team: Who are you and how did you meet?

We are students at Faculty of Organization and Informatics in Varazdin. We knew each other but our collaboration began after the Imagine Cup presentation, as we found we have a common interest in photography. Both of us have been involved in photography for a long time so it was a great opportunity to take our interest to the next level.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Photography invitational?

We choose photography because both of us are involved in photography through our photo club activities so this choice was natural for us.

#### Technology/software used:

- Adobe Photoshop CS2 (basic corrections)
- Microsoft PowerPoint (presentation)

#### What has been your favorite part of the Imagine Cup competition thus far?

Discovering that we are one of the six finalists.

#### What do you plan on doing after the Imagine Cup finals in South Korea?

We don't know yet. In part, it depends on our results in South Korea. But we'll continue to study and develop our photography skills.

#### What are you most looking forward to about the worldwide finals in South Korea?

Visiting a new country and meeting new people. The whole experience is very exciting and we can't wait for the finals to start.





#### India Wanderers

### **Team Members:** Bhavana Kidambi D Naveen





#### Project Overview: Please describe the storyline of your photo essay. How does it address the theme of education?

Our photo essay tries to bring forward a child's innermost burdens; the excessive workload, the absence of an outlet for creative expression, the lack of identity and over-bearing monotony. The child desires to be a free thinker and to possess a streak of creative intellect. He wants to transcend the boundaries limiting his potential, and yearns for the technology to rekindle hope and not let him be "Another brick in the wall"!

#### Background on your team: Who are you and how did you meet?

Bhavana is a final year architecture student, Naveen is an engineering Graduate in IT. We met through common friends.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Photography invitational?

We heard of the Imagine Cup from friends participating in other categories of the Imagine Cup. Being photography enthusiasts, we thought it was a great platform to participate and share a message that we both believed in and were passionate about: Technology as a means to better education.

#### Technology/software used:

Picasa, Microsoft Power Point

#### What has been your favorite part of the Imagine Cup competition thus far?

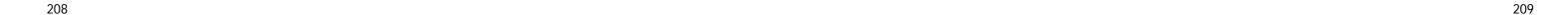
In the process of working with children and interpreting the theme of the Imagine Cup, we learned so much more about the system of education of our country and how technology could alter the lives of the millions of children entrenched in this system.

#### What do you plan on doing after the Imagine Cup finals in South Korea?

Participating in the Imagine Cup lead us to believe that photography can be a great mobilizer for social change. We intend to pursue our passion for photography concurrently with our careers.

#### What are you most looking forward to about the worldwide finals in South Korea?

ICO7 will provide us with a platform to test our abilities at an international level, give us an opportunity to meet people from varied diversity and cultures. We will be able to learn the subtleties in photography that arise as a result of cultural and historical diversities.







### **Poland**

### Maraqja





**Team Members:** Iwona Biełecka Malgorzata Lopaciuk

**Title of Project:** Seven deadly sins



We are students from Poland. Iwona met Gosia (Małgorzata) thanks to her friend, when she was looking for a team member for the Imagine Cup 2007.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Photography invitational?

We love to take photos and arrange photo sessions so we thought that the Imagine Cup would be a great occasion to show our skills.

#### Project Overview: Please describe the storyline of your photo essay. How does it address the theme of education?

The Technology presented in our work has a special intelligence that allows her to help people not to commit the sins. When The Technology taught the sinners how to improve their way of living, they finally can do the right things and be happy.

#### Technology/software used:

We used a Nikon D70 camera and Adobe Photoshop for small retouches.

#### What has been your favorite part of the Imagine Cup competition thus far?

It was great to come up with the idea and then bring it to life.

### What do you plan on doing after the Imagine Cup finals in South Korea?

Perhaps similar things as before!

#### What are you most looking forward to about the worldwide finals in South Korea?

We are anxious to see the country and to meet all of the competitors from around the world.





### **Ukraine**

### Step







#### Project Overview: Please describe the storyline of your photo essay. How does it address the theme of education?

Our photo essay shows a way of development of the person and a science, from finger writing on the sand, to finger drawing on a touch monitor.

#### Background on your team: Who are you and how did you meet?

We (Kseniya, Anton) received the second education in computer academy "Step", where we got to know Julia Gulja, the teacher of our academy.

### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Photography invitational?

We wanted to test ourselves as photographers. Because we are graphic students photography is the closest thing to do.

#### Technology/software used:

Sony Cyber-shot DSC-R1, Canon PowerShot S3 IS, color lamps

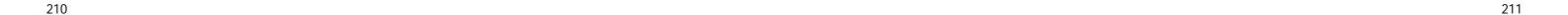
### What has been your favorite part of the Imagine Cup competition thus far?

Communication, the process of preparation for work, work and seeing the results on the screen.

#### What do you plan on doing after the Imagine Cup finals in South Korea?

We are planning to participate in Imagine Cup 2008.

What are you most looking forward to about the worldwide finals in South Korea? Victory.







### **Short Film**

The Short Film Invitational highlights the art and science of telling a story. Students are challenged to share a perspective on the theme of the Imagine Cup, but moreover they are asked to express themselves in a unique medium that still challenges even the most veteran of filmmakers. From concept and storyboard, to footage and editing, these participants must be able to put it all together and move an audience. Unique perspectives and creativity abound in this process but the story must still come through the digital media and have a strong purpose and meaning. Only the most talented young filmmakers will even attempt such a feat.





Short Film



Brazil

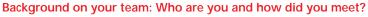
Team Papa-Paçoca

### **Team Members:**

Alexandre Nacari Arthur de Pádua Felipe Pellisser Wendel Yokoyama

#### Title of film:

Synapse



We all study at UNESP, São Paulo State University, here in Brazil. Alexandre studies Graphic Design, Arthur and Felipe study product design. Wendel is a student in the Audio Visual area. We all knew each other because we have the same interests in motion graphics, cinema, animation, etc.

We all work at LTIA, Applied Information Technology Lab, where we first heard about the Imagine Cup. We had acquired some experience with animation and video editing in a video music competition promoted by Trama Studios, in 2005. In fact, the music video produced by Arthur and Felipe placed 3<sup>rd</sup> in that competition. Felipe Pellisser won the first place in a short movie competition themed as "Expressões do Brasil", - Brazil Expressions, promoted by Siemens Mobile.

Arthur and Aleandre Nacari also participated in AnimamundiWeb, an international animation festival.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Short Film invitational?

We think that Imagine Cup can be a window to new and amazing possibilities. Education is one of its most important areas of research at the IT lab where we work. So this year's theme was perfect for us. We chose the Short Film invitation because it's the best fit for our areas of interest.

#### What is the storyline of your short film? How does it address the theme of education?

We show the relationship between technology and education from a wider historical view: technology was always used to transmit knowledge between generations, even before the digital revolution, through technologies like paper, writing, mathematics, physics, and biology.

We show education as the transfer of knowledge and we show the many ways this transfer can happen.

#### Technology/software used:

- Autodesk Maya
- Adobe Photoshop for multiple frames retouching
- Irfanview, for multiple files renaming and batch conversion
- Adobe After Effects
- ArtRage Free
- Windows XP Professional Edition

# What has been your favorite part of the Imagine Cup competition thus far? What obstacles have you had to overcome?

We think that the second round was the toughest and the most exciting part of the competition... because we had to work a lot... and put our ideas to the text to make the short animated movie. When the film was complete, we felt a lot of relief, and we could share our joy with our workmates.

We had to overcome obstacles like how to manage some scenes, how do distribute the work, assignment of tasks to each team member, and problem solving.

#### What do you plan on doing after the Imagine Cup finals in South Korea?

We plan to learn more about Korean culture. We've heard about Gyeongbokgung Palace... that looks simple amazing. And Seoul is the capital of monocycles... so we hope we can do some sightseeing and maybe test a monocycle. There are a lot of places to rent bicycles there too. Shopping is a great idea too. Ahhhhhh we've heard about the spicy Korean food, and we plan to taste it.

#### What are you most looking forward to about the worldwide finals in South Korea?

Well, we are looking forward to spending a great time there! We will enjoy all the different people and points of view, and make contacts with other filmmakers. And last but not least, win the 1st place!





# **Poland**

## Skylined



#### Team Members:

Julia Górniewicz Jacek Barcikowski

### Title of film:

Pitchforksville

#### Background on your team: Who are you and how did you meet?

We are used to saying that we are a 'not very big at all' group of people, who are passionate about telling stories through pictures. We met in 2001 at the University of Warmia and Mazury where we both studied computer science. We started making short animations and Web sites together and we enjoyed working together. Since we started our collaboration we've made several animation and film shorts and though we don't study at the same university anymore, we're still having a great time as a team and we plan to work this way in the future. Currently Jacek is a computer science student at Poznan University of Technology while Julia studies art at the University of Warmia and Mazury.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Short Film invitational?

We first decided to participate in Imagine Cup in 2005 when we saw a poster saying that the finals will be held in Yokohama, Japan. Since we always dreamt of visiting Japan, we decided to participate even though we knew nothing about the competition itself. The short film invitational was an instant choice for us, because we wanted to participate as a team and Julia is one terrible computer scientist. To our big surprise and even bigger happiness, we were selected to compete in the finals and we loved it so much that we've decided to participate in every Imagine Cup Edition we can.

#### What is the storyline of your short film? How does it address the theme of education?

The story takes place in a small village called Pitchforksville. A young man called William Black is on his way to visit his uncle Frankie Einstein, a scientist who lives in an old castle nearby. Frankie's genius is unappreciated by the local people and his inventions are always misunderstood. Encouraged by nephew, Frankie decides to create a machine that would secretly educate people to help them understand his inventions.

We believe that technology which enables a better education for all does not necessarily has to be directly connected with the education itself. People often cannot pursue self-growth because the world stands in their way. They are born into certain circumstances and they have to take care of the living first not being able to choose what they want to do with their lives. Whether it's a child working in a factory or a person dealing with disability, technology can help people overcome the daily problems so they can focus on exploring their personalities and following the path of knowledge.

In our film, the "education machine" that Frankie and William create, helps the local people deal with their everyday routine, so they can discover the world of books and the richness inside them.

#### Technology/software used:

Our film is hand drawn with computer animation. We used Intuos3 A4 graphic tablets and Mirage (a.k.a. TV Paint) for animation, Adobe Photoshop for backgrounds and Adobe Premiere for editing. Additionally we used Goldwave to edit sound and music and Adobe After Effects for... well... the after effects.

# What has been your favorite part of the Imagine Cup competition thus far? What obstacles have you had to overcome?

Our absolute favorite part of the Imagine Cup competition is always the onsite guerrilla challenge-it's the most fun and creative part. In this year's edition we loved drawing the film in the semi finals-although it's a lot of work, watching the characters coming to life is always exciting. The biggest obstacle thus far was time-trying to work, study and draw almost 8 minute animation in one month is a big challenge.

#### What do you plan on doing after the Imagine Cup finals in South Korea?

We plan to draw another animation. We have the best idea in the world, but we're not telling anything about it .

#### What are you most looking forward to about the worldwide finals in South Korea?

We are definitely looking forward to the onsite guerrilla filmmaking challenge, meeting lots of fantastic people, and seeing South Korea with our very own eyes.



Short Film



## Sri Lanka Team Tear



#### **Team Members:**

Jayanath Galahitigama Tharaka Jayasekara Ishara Perera Isura Sandaruwan

#### Title of film:

Little Girl

#### Background on your team: Who are you and how did you meet?

We are first year undergraduate students at the University Of Colombo School Of Computing (UCSC). We are all getting our bachelor degrees in Information and communication Technology (BICT).

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Short Film invitational?

After Microsoft representatives from Sri Lanka told us about the Imagine Cup 2007 we thought of competing in a different category and everything was new to us.

#### What is the storyline of your short film? How does it address the theme of education?

"Whatever is said and done people are daily discriminated against for lack of wealth in most third world countries and their talents die out without being discovered."

All parents want the best for their children but in many cases they cannot fulfill their dreams. If all the parents had guardian angels to make their kids' dreams come true the world would be a better place. This should be the part that technology should plays in education.

In our story we focus on this issue and on what technology can do to improve the situation.

#### Technology/software used:

Adobe Premiere, Adobe After Effect, and Combustion were used to develop the film and Cue Base 3.0 and Reason 3.0 were used to compose the music. Most of the scenes were shot in daylight.

# What has been your favorite part of the Imagine Cup competition thus far? What obstacles have you had to overcome?

Being at the Worldwide Finals and competing with the best teams is a huge task and challenge to us. At the beginning it was difficult for us to find funds and equipments to do our production. Now we are determined and confident and ready to give our best in the finals.

#### What do you plan on doing after the Imagine Cup finals in South Korea?

Share our experience with our fellow students at the university (as well as others outside the university) and encouraging them to take part in the coming Imagine Cup competitions.

What are you most looking forward to about the worldwide finals in South Korea? Winning the Imagine Cup 2007.





# **Taiwan**

#### Team Circle

# Team Members:

Chang Hao-Jan Chang Shu-Wei Tseng Yen-Chi Lin Di-Er

#### Title of your film:

BR-14's April

#### Background on your team: Who are you and how did you meet?

Hao-Jan and Yen-Chi are high school classmates. Hao-Jan and Shu-Wei are a couple and Yen-Chi and Di-Er are a couple, and the four of us are now roommates.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Short Film invitational?

Hao-Jan and Yen-Chi, were in Imagine Cup 2006, and made it to the finals in India. Short Film is our way to approach the theme given by Imagine Cup. To be more exact, Animation is the form of digital art to say something.

#### What is the storyline of your short film? How does it address the theme of education?

Br-14 is the old generation of battle robots; our story is about one of the Br-14, who chose not to kill. Our Br-14 meets a little girl named April; together they have some good times. April teaches Br-14 that there are many wonderful things other than war.

Education can be a seed in our hearts, which might grow into a blossom some day. Even some high-tech killing robots can be modified by an innocent child like April, which shows the power of Education.

#### Technology/software used:

We used Adobe Photoshop, Macromedia Flash, and Sony Vegas.

# What has been your favorite part of the Imagine Cup competition thus far? What obstacles have you had to overcome?

Our favorite part is to compete against some of the world's best teams and see how far we can go. We had to overcome the time pressure when our due day was near, it was the end of the semester and there were tons of exams and exhibitions we had to attend at the same time. There is little time for the four of us to work together; therefore we had to count on MSN a lot.

#### What do you plan on doing after the Imagine Cup finals in South Korea?

Go back to school, and prepare for the 2008 Imagine Cup in Paris!

#### What are you most looking forward to about the worldwide finals in South Korea?

We're very excited about trying the seafood... and of course, the big event, meeting other teams, meeting the Short Film Captain Filip, and the other final round teams... Over all, we are excited about everything!





Short Film



# Turkey Team Ottomans



#### **Team Members:**

Cerem Dinç Filiz Şahin Murat Kuşçu Sinan Dinc

#### Title of film:

Tanbron

#### Background on your team: Who are you and how did you meet?

We are all from different universities and different fields of studies and none of us has a cinematic education but we are all addicted to cinema. This addiction brought us together to make movies. Three of us know each other in real life before but we met with one of our team members on the Internet.

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Short Film invitational?

The idea of a challenge with thousands of students from different countries and different cultures all around the world inspired us. Making movies is the best way for us to express ourselves to the world so the Short Film invitational is the best fit for our team.

#### What is the storyline of your short film? How does it address the theme of education?

Education is present everywhere we go, all around the world. We can easily claim that education is the basis of career, money, growth, power and so on... In other words, we can't imagine a world without education while we all try to educate ourselves to be healthy, to have a good career, to earn money and even to understand other people. By doing this, we're actually trying to make the world a better place to live on. Nowadays, we have a great deal of education facilities. However, our world is still getting worse.

Human society is suffering from traumas and mental diseases; great wars are taking place in the darkest part of our minds because of the psychological depression which is surrounding the world. Our movie focuses on the following points: Can we learn to struggle against great sorrows in our souls? How can we control the most evil instincts and lock the worst memories in our minds by using education to be a better person?

This is the story of an old soldier. After leaving the army because of all the traumas he had in his past and the tragic dead of his daughter, he lost his mental health and then became a murderer in a dead end. After his arrest, governments new education project gives him a chance to start a new life as a new man... An old soldier in a dead end and a chance to start a new life...

#### Technology/software used:

Windows Moviemaker, Adobe Premiere, Adobe After Effects, Adobe Photoshop

# What has been your favorite part of the Imagine Cup competition thus far? What obstacles have you had to overcome?

Competition has been rough and challenging, but very exciting. It was a lifetime experience that we will never forget. But, waiting for the worldwide finalist announcement was the most exciting and unforgettable part.

Getting permissions from the government offices and police department for the planned shooting for our short film, arranging costumes and professionals were the hard parts for us. One of our team members was wounded while we were shooting the explosion scene and get electric burn on set. Because of limited time problems, we had to complete our shooting in 30 hours without any breaks.

The editing process was really hard and exhausting as well. We didn't have enough budgets for a crowded assault team so we had to use special effects and make colons for some scenes. We had to work on Internet to edit our movie because we were all in different cities during the editing process-Thanks to technology!

#### What do you plan on doing after the Imagine Cup finals in South Korea?

Imagine Cup gives us a chance to prove ourselves in film sector and we want to use advantages of this success with our past experiences to make more movies.

#### What are you most looking forward to about the worldwide finals in South Korea?

Meeting with new friends from all around the world and discover a new city, browse around Seoul to learn more about fantastic South Korea, enjoy... And of course we're looking forward to winning!





### Ukraine DolT!



# Team Members:

Sergey Yurkov Anton Schweigert

#### Title of film:

Alan & Alina pass an exam

#### Background on your team: Who are you and how did you meet?

We all studied in the same group in Dnepropetrovsk National University of Railway Transport. We had graduated in June 2007, Anton has a Bachelor of Computer Science degree, and Sergey has a Master of Computer Science degree.

Sergey takes a great interest in hiking, playing guitar and table tennis. In his free time he tries to organize his business of developing computer games. For some time Anton worked with him in the position of game designer.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Short Film invitational?

**Sergey**: We were inspired with idea to work in some new, creative field absolutely different from programming. Besides, the Imagine Cup is an excellent way to make new friends in all parts of the globe.

Anton: I was inspired by Sergey when he called with the news about the competition which comes to an end in 3 days. It was the best push for me!

#### What is the storyline of your short film? How does it address the theme of education?

There are two heroes in our film. One of them uses modern technologies (Alina), while the (Alan) does not use modern technologies. Though Alan does not suspect it, technology also impacts his education due to technical novelties. It seems to us, that in this way we have most directly answered the question of how technology helps all to get access to the best education.

#### Technology/software used:

Sony HDR-FX7E, tripod, vehicle.

Adobe Premiere CS2, Virtual Dub 1.5.1, Deshaker 2.0, Adobe Photoshop CS.

# What has been your favorite part of the Imagine Cup competition thus far? What obstacles have you had to overcome?

It was pleasant to open the leaderboards after the second round and to see the name of our team in the first place. Seriously speaking, preparation and shooting were the most challenging parts of the process. There were many difficulties, for example, it was necessary to find a new vehicle which took 2 weeks before the shootings, and to raise \$3500 for a video camera. We had to look for money for so long, that shooting was conducted in two days total, and our film was mounted in 6 hours.

#### What do you plan on doing after the Imagine Cup finals in South Korea?

Speaking about films creation, we have plans on creation of one more short-footage film for the British project DepicT! (a part of Encounters Short Film Festival) and shooting of TV-advertising which we were recommended to take part in after the Imagine Cup final.

#### What are you most looking forward to about the worldwide finals in South Korea?

**Sergey**: 36-hour non-stop competition. I have been a participant of such events few times, when time is limited and the rewards are very high. I adore the energy of these moments. This is a great test for the spirit.

Anton: I agree with Sergey. The most interesting decisions come to me during those moments when time limits are compressed and it is necessary to throw out non-standard ideas at any cost.





# **Interface Design**

Creativity, innovative ideas, and usability - when these three elements come together for users of software or Web applications it becomes pure magic. The experience that the artist and developer can create with a well designed user interface can make or break the application that it sits in front of. The Designer invitational challenges designers all over the world to create useful and compelling user interfaces that are unique and forward thinking. Participants have the opportunity to dream of an application, connect to the theme of the Imagine Cup and show the world how their skills can bring that to life. Innovating and envisioning revolutionary interfaces are the goals. Competitors are encouraged to get away from traditional user interface approaches and rethink the way we behave when in front of a computer screen.







# Austria

#### **OOT Graphics Team**



**Team Members:** Verena Lugmayr Claudia Oster

**Title of Project:** INTOI-Interchange of Ideas



INTOI is a hardware-software setup that serves as a digital hybrid between a flipchart and a whiteboard. Pen based multi user interaction on a rear projection surface is quite similar to working on an analogous whiteboard. Intoi allows its users to easily write, draw and, additionally, load images, PowerPoint presentations, PDF's and videos. An easy-to-use menu system and a simple remote control enable the user to easily change properties and switch between slides. Navigation on the page of infinite size is performed by simple hand gestures.

Intoi combines the benefits of ordinary flipcharts and whiteboards with the potential of today's computer systems. Furthermore Intoi introduces a unique user interface which is easy to understand even for people without any computer experience.

#### Background on your team: Who are you and how did you meet?

We first met at the University of Applied Sciences Hagenberg, Austria, where we are studying at the master course "Digital Media".

# What inspired you to enter the Microsoft Imagine Cup and why did you choose the Interface Design

As we already started with our project at the university, we heard about the Microsoft Imagine Cup and the topic "Imagine a better World of Education". Our project was to develop the user interface for a digital flipchart and we thought it would go perfectly with this topic.

#### Technology/software used:

- C# .NET, Tao Framework
- Microsoft Visual Studio 2005
- Adobe Illustrator

- Anoto Pen and Paper Technology
- Adobe Photoshop

#### What has been your favorite part of the Imagine Cup competition thus far?

Our favorite part was right after the Round 1, were we were able to see all the projects of the other teams and their ideas concerning the education topic. This also motivated us to work harder on our prototype for the 2nd round.

#### What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

We are going to improve the usability of Intoi and add several additional features. Especially the combination of analogous and digital content seems to be an interesting topic for future work. Making our own business sounds interesting, but unfortunately we don't have the money necessary.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are really looking forward to meeting all the other student teams and talking about their ideas.







### China FrontFree Studio UI



**Team Members:** Dongjing Yao Yushi Ma

### **Title of Project:**

Frain

#### **Project Overview:**

Frain is a 3D application of a large-scale knowledge base. It provides a clear, easy way to share information, to get knowledge, and to make education efficient. The project utilizes advanced meaning of data presentation and search: 3D interaction movie technique helps video data presentation, which makes direct and clear impression and strengthens interaction. The new voice recognition system makes data search much easier and comfortable. By integrating these new techniques, the knowledge procure process will be simple and interesting, benefiting both educators and learners.

#### Background on your team: Who are you and how did you meet?

Frontfree Studio UI was founded in April 2001. Our goal is to create the most fantastic interface for our program and to extend programming technology. Many computer technology fans with good skills joined us and worked for this goal. Yushi Ma is a graphic designer, and Dongjing Yao is a programmer. We worked together and made our project--Frain. Both of us are members of Frontfree Studio UI.

What inspired you to enter the Microsoft Imagine Cup and why did you choose the Interface Design invitational? We think the Microsoft Imagine Cup is a great platform to show our idea. We chose Web Development because we want to create a whole new interface to help students get knowledge easily and comfortably.

#### Technology/software used:

- Microsoft .NET framework3.0
- ExpressionBlend
- Fireworks8.0

- Visual Studio 2005 Team Suite
- 3ds max

#### What has been your favorite part of the Imagine Cup competition thus far?

The Imagine Cup provides an opportunity to communicate with worldwide students.

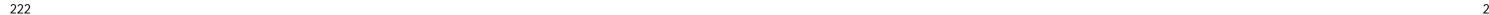
What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

Of course, we hope our idea will build into a business someday.

What are you most looking forward to about the worldwide finals in South Korea?

We will try our best and expect to win the first prize.









## France

#### **Atomnium**



**Team Members:** Manon Gaucher Flavien Charlon







#### **Project Overview:**

EasyTour is an application that will help you to learn about a city while visiting it.

It is a mobile application, since it has been designed to be used on a Tablet PC. First of all, before your trip, you will have to download from the Internet a data file containing information about the city you want to visit.

Then, you will have to plan which cultural points of interest you are about to visit. In order to help you, EasyTour will provide you a lot of information as well as reviews submitted online by other visitors.

During your tour, an interactive map helps you to localize yourself and the points of interest you chose to visit. You also have at your disposition a 3D multimedia encyclopedia that provides you with several articles about places, traditions, famous people, and many other topics.

#### Background on your team: Who are you and how did you meet?

We met three years ago while we were studying in the same college in France. Now, we are both students in engineering school. Manon is studying in Turin, Italy, and Flavien in Lyon, France.

We have known the Imagine Cup since 2005. Last year we were finalists in the Project Hoshimi invitational. This year, we wanted to step up again to the challenge, and once again apply ourselves to an ambitious project. That's why we decided to enter the Interface design invitational together.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Interface Design invitational?

The Imagine Cup is a good opportunity for us to carry out a team project. Moreover it gives us the chance to discover technologies we were interested in. The Interface Design invitational is a technical challenge, as well as an artistic one. We chose it because we liked this diversity. Besides, we wanted to learn about new technologies that will quickly become industry standard.

#### Technology/software used:

We used the WPF technology which enhances graphic style of new generation applications running under Windows Vista. We used Microsoft Expression Blend, and Microsoft Visual Studio as our developer tools.

#### What has been your favorite part of the Imagine Cup competition thus far?

At this time, our favorite part in the competition has been discussing our ideas with other contestants and sharing our experiences. We have really enjoyed having a look at the various projects submitted by other contestants.

#### What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

After the worldwide finals, we will keep on improving EasyTour. We currently are thinking about many ways

#### What are you most looking forward to about the worldwide finals in South Korea?

We are very excited to meet other contestants from the Interface Design invitational. We are also really happy to discover South Korea.







## **France**

### **TimeCube**



### **Title of Project:**

Time<sup>3</sup>



The Time Cube was conceived to be integrated in a broader application, but it is valuable enough by itself too. The Cube gives the user a better overview of world history in three dimensions: time, space and topics. At any moment, the user can see what happened at a given place throughout time and in different topics; or the Cube can be rotated to display, for a given date, what happened around the word in different topics; or rotated again to display for a given topic, what happened in time and space.

All axes can be moved to travel in time and space and to display different topics, and zoomed to allow a broader or narrower view according to the user's needs.

The Time Cube would work great as part of an encyclopedia, allowing its users to easily find and crossreference information, and it would be even better if connected to the Internet, so that this information is updated in real time, giving an overview of world in three dimensions as it changes.

#### Background on your team: Who are you and how did you meet?

Mauricio is a computer engineering student at SUPINFO Paris, where he also trains other students in .NET technologies. Faustine is a design student at State Collège, also in Paris. They both met at Microsoft's Technology Center where they were invited to learn more about this year's Imagine Cup and decided to create a team.

What inspired you to enter the Microsoft Imagine Cup and why did you choose the Interface Design invitational? We both had good ideas, which we thought could be well applied to the Interface Design invitational given our software development and design backgrounds.

#### Technology/software used:

Development was done on Visual Studio "Orcas" using the Microsoft.NET Framework and the Windows Presentation Foundation.

Design was done on Adobe Illustrator and Photoshop then later integrated in the project using Expression Design and Expression Blend.

#### What has been your favorite part of the Imagine Cup competition thus far?

Definitively, learning that we were qualified for the world finals, because it was totally unexpected, given some technical difficulties that we had before the deadline of Round 2 that prevented us from submitting the project as we would have liked to.

What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business? Our career plans in the short term, definitively didn't include creating a business out of a competition

idea. But if someone is interested, why not?

#### What are you most looking forward to about the worldwide finals in South Korea?

We have no idea what to expect from the world finals... Hopefully, we will be able to meet new people with which we will certainly share interests and who will challenge us in the final round. We will do our best to defend the colors of our respective countries (our flags share the same colors, so there's no risk of problems within the team [wink!])









## India

### **Avengers**



#### **Title of Project: NIDRA**







NIDRA (implies sleep in 'Hindi' language)is based on Sleep Learning (also known as hypnopædia) technology and it attempts to transmit information to a person in sleep. This helps him to learn while sleeping .This Application is controlled by the nervous system. NIDRA will be supported by an intelligent cap hardware on the user's head, connected to a WI-FI system. Using sound waves and "Hypnobioscope", electric signals are implanted directly into the brain. This can help the user in learning languages and technologies, applying self-development, etc.

#### Background on your team: Who are you and how did you meet?

NIDRA is a creative implementation of dreams of two visionaries, Mohit Bhargava and Mitushi Jain. Mohit, a computer engineer, applied his knowledge to develop NIDRA from bottom up technically. He also has knowledge of business administration as he's pursuing an MBA from the National Institute of Business Management. He plans to apply a business model to make NIDRA a product in future.

Mitushi Jain's passion for graphic design has brought up NIDRA to life--her innovative sense of giving forms and color can be seen across the application. She is pursuing Fashion and Lifestyle Accessory Design from the National Institute of Fashion Technology.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Interface Design invitational?

The Imagine Cup always asks for innovation, and our team always believes that innovation can lead the future and therefore uses technology to solve problems of the world. Also the chance to participate with other smart people across the world is a real challenge and we learn so much from each other.

#### Technology/software used:

- Microsoft .NET 3.0
- Microsoft Expression Design
- Adobe Photoshop
- 3d Max

- Microsoft Expression Blend
- Microsoft Visual Studio
- Zam 3d

#### What has been your favorite part of the Imagine Cup competition thus far?

The experience of new technology and applying it to help human kind and compete with the top students of the world is the most interesting part of this whole voyage.

#### What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

Yes, we want to build out our idea into business solution. Our last year's idea has already been taken up by Indian Army, and this year we have already started searching for people who can help us in further development. We are also looking financing from some companies.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward to meeting all the finalists of Imagine Cup 2007. It is a lifetime experience, which has become a passion for us. We would like to share what we have with the rest of the world and would like to learn from our judges and friends.











#### Romania **BluePixel Studio**



**Team Members:** Ionut Cirja Gabriel Constantin Deliu

**Title of Project:** Virtual Chemistry

#### **Project Overview:**

Virtual Chemistry is an interface that enables you to meditate upon the beauty, the elegance, the power and utility of chemical theories, to work and think like a scientist, to make the same mistakes and improve them. Imagine... You're in the wilderness admiring the bright green colors of the abundant vegetation, contemplating the great foamy waves of landscape, the notched ridge cliffs coming out of the water and still remain confident in the surrounding sensory perception phenomena. You can also choose to understand the major forces which control your life. We are convinced that if you let yourself be carried to this path, you will discover the importance of understanding, and explaining the chemical concepts underlying life and phenomena. You can then apply your knowledge in society, economy and health.

During your journey to the mountain or sea-side you may wonder:

- How and why do atoms combine one with each other?
- Do rocks, wood, water, plastics, carbon dioxide, salt or metals belong to the same group of substances or to different ones?
- How can you explain the crystals' perfect structure and how does that affect their properties?

The only science that has all the answers to these questions and many more is: CHEMISTRY.

- ...is nature's science that studies the substances' composition, structure, modifications and the general laws.
- ...implies a profound study, deeply bound to man and society, groundbreaking for the imagination, understanding, observation and also, analysis. The interface that we developed uses a speech recognition system that allows the user to move the mouse only using his voice. The only thing the user of Virtual Chemistry has to do is to say the direction in which they want to go, and the mouse will move accordingly. The application allows you to use the software just by looking at it. Using a Web camera installed on your computer, Virtual Chemistry can analyze the images sent by it and literally track your eye movement, positioning the mouse on the spot you are gazing at. We've made research in this field for some time but only just recently we came to substantial progress. And the best thing is that the user doesn't even need to know how to use the mouse. This new approach regarding human-computer interaction may lead to new research and hopefully be from now on integrated in all the application.

#### Background on your team: Who are you and how did you meet?

We are two students, one in Mathematics and the other in Informatics at the same University, "AI. I. Cuza", in lassy, Romania. We are good friends, sharing the same passion for technology from the very beginning of our studies.

#### What inspired you to enter the Microsoft Imagine Cup and why did you choose the Interface Design invitational?

The first time I entered the Microsoft Imagine Cup was 3 years ago and I found out about it from elder fellow students. Thus, I thought that I could do the same. My friend, Gabi Deliu, found out later and we thought that we might do something great.

Taking into consideration the idea of this invitational, we thought that it could be very interesting to create an innovative interface. Another reason was our passion for design.

#### Technology/software used:

- Visual Studio 2005
- Microsoft Expression Blend Speech Recognition
- Text2Speech

- Eye Recognition
- Web Services
- XML

#### WPF

What has been your favorite part of the Imagine Cup competition thus far? We like the idea of this competition as a whole.

#### What do you plan on doing after the Imagine Cup finals in South Korea? Do you plan to build your idea into a business?

We have already begun to develop our idea for a business and we hope to have success there too.

#### What are you most looking forward to about the worldwide finals in South Korea?

We are looking forward for the thrill of the competition and also the world premiere.





### About the Microsoft Academic Team

Microsoft works in partnership with the worldwide academic community to expand opportunities for students and educators and to encourage innovation in the technology industry. The Imagine Cup clearly demonstrates Microsoft's continued commitment to fostering interest in computer science among students with the ultimate goal of stimulating local knowledge economies across the world. The Imagine Cup demonstrates our commitment to the following goals:

- Commitment to education and employability: The Imagine Cup helps students around the world realize their potential and experience the opportunities made possible through technology.
- Commitment to driving innovation in response to solving the world's toughest problems: When coupled with the power of technology the potential of young people is unlimited and the ideas they develop for the Imagine Cup could significantly improve the lives of millions of people around the world. In this competition, everyone wins.
- Creating future growth and economic development: The students who participate in the Imagine Cup all over the world represent the next generation of technology and business leaders. Their creativity and innovation speaks volumes about the promise of technology to really make a difference in peoples' lives in the way we think, work and communicate.

It's been a long journey to the Imagine Cup finals and chances are you've already met someone on the Microsoft Academic team on the way. We are a worldwide team of over 100 people who spend our days working with students and faculty to develop Microsoft's relationship with academia.

Our mission is to empower students like to achieve your hopes and dreams in both your personal and professional lives. The Imagine Cup is just one of the programs that we work on throughout the year.

Channel 8 is the Microsoft community for technical students. As part of the Evangelism Network (Channel 9 and Channel 10), Channel 8 provides software design and development students with the latest news about upcoming technology releases, access to insights from individuals in the product groups on future technologies, and the chance to share their opinions and accomplishments with students from around the world who have similar interests.

Microsoft Student Partners is a global effort to reach out to students at the campus level to share our passion for technology.

The Microsoft Students to Business Program connects Microsoft partners and customers with universities to provide students with real world experience and establish the skills and competencies needed to fuel innovation, broaden the recruiting process and aid employability of the next generation of students. The Students to Business (S2B) program is designed to support strong local software economies by helping companies find and hire talented students for their first jobs or internships in the technology industry.

We also give regular technical presentations on school campuses throughout the world and bring your feedback to the product development teams giving guidance on Microsoft's next generation technologies.

We wish you all luck but most of all we hope that you have a great experience in Seoul at the 2007 Worldwide Imagine Cup Finals.

The Microsoft Academic Team

**Academic Team** 

**About the Microsoft** 

# **Imagine Cup Innovation Accelerator**

The Imagine Cup Innovation Accelerator is one of the world's premier technology showcase events for students and is co-sponsored by Microsoft Corp. and BT. It is an intensive two-week program designed to inspire the world's best and brightest young minds to create the "must have" technology and communications applications of the future.

The Innovation Accelerator is a unique prize and opportunity for the top six Microsoft Imagine Cup finalists from the software design competition to harness their exceptional talents and take their ideas a step further toward commercial reality. The program is designed to inspire new generations of students to apply their skills and creativity to make a difference, both globally and locally, through technology.

Six of the software design invitational student teams from the Imagine Cup 2006 world finals participated in the Imagine Cup Innovation Accelerator program. The teams refined the software applications they created for the Imagine Cup competition after receiving in-depth guidance using Microsoft and BT platform and network assets. Guidance from business experts was also on hand to help bring their concepts to market.

The Imagine Cup Innovation Accelerator is about turning creative passion into commercial reality. Every one of you is exceptional. Continue that passion; have daring goals and keep your dreams.

# Microsoft would like to thank the following judges for their support of the **Imagine Cup 2007 World Finals**

Judges

Mr. Abdul Waheed Khan Assistant Director-General for Communication and Information UNESCO. Alexandra Augusta Pereira Klen GSIGMA Co-ordinator, Federal University of Santa Catrina (UFSC), Brazil Bernhard Steffan Professor, University of Dortmund **Brian Conte** President, Fast Track, U **Chris Amaris** Chief Technology Officer, Convergent Computing, USA Chris Hess Creative Director, Mondo Robot Christian Schormann Director Program Management & Product Strategy, Microsoft Chuck Yoo Korea University Colin Finlay Photograher, Colin Finlay Photography Corey Burke Test Manager, Microsoft, USA Daniel Magliola Customer Service Director, Crystal Gears, Argentina **Dennis Anderson** Professor, Internationalist, Technologist, ICT Adviser & Strategist Edwin Jongsma Capability Director Solution Development, Avanade **Etienne Tremblay** Lead Technologist , Innovation Engineering, EDS Filip Joos Film Director, Belgium **Gregory Renard** CTO WYGWAM- Microsoft Regional Director, MVP Guillaume Belmas Software Architect, Exakis, France Hassan Khabbazeh Information Technology Chair, HCT, UAE Helmut Spudich Business & Technology Editor, Der Standard Ivan Boyd, BSc, MSc, PhD General Manager Research, BT Group Chief Technology office Jae, Soh Professor of Film, Seoul Institute of the Arts Festival Director, Producer, RESFEST Korea Professor, School of Electrical & Computer Engineering, Georgia Institute of Technology James Hamblen Jeff Greene Technical Evangelist, Microsoft Pro Photo Community John Eldridge Pricipal Software Design Engineer, Microsoft USA José Roberto Vasconcelos Professor, University Estácio de Jozef Colpaert Professor ICT & Educational Engineering University of Antwerp, Belgium Jung-Hee, Song Assistant Mayor For Information Technology(CIO) Seoul Metropolitan Government Kerem ÖZSÜ CEO. I-con **Kevin Nickels** British Teleocommunications plc Kwang Keun, Yi Professor, School of Computer Science and Engineering, Seoul National University

Lani Fraizer Microsoft IT Academy Program Maarten Struys Maarten Struys-Technical Manager, PTS Software by Maria da Graça Pimentel Professor, Sao Paulo University, Brazil Mehmet Nuri Cankaya Enthusiast Evangelist, Microsoft Nannette Cutliff Vice President /Chief Information Officer, Pacific Service Nauzad Kapadia Director & Principal Consultant, Quartz Systems, India Nick Randolph Microsoft MVP & Lead Developer, Intilecta Corporation, Australia Ovid Tzeng System Chanceller, University System of Taiwan, Taiwan Peigen Li President, Huazhong University of Science & Technology Philip Winstanley Secret Volcano Lair Limited, UK Rand Morimoto President, Convergent Computing, USA Richard Clark Microsoft MVP .Net français, Consultant C2i.Fr, France Microsoft Student Partner Chip Magazine, Turkey VP Sales & Marketing, ICOP Technology Inc British Teleocommunications plc Senior Marketing Manager, Microsoft Program Manager, Microsoft, USA Software Design Engineer, Microsoft

Richard Petercsak Lecturer & Teaching Fellow, University of Hull, UK **Rob Miles** Sahin Eksioğlu Samuel Phung Steve Konya Steve Kosted Sung Deok (Steve), Cha Professor of Electrical Engineering & Computer Science, KAIST (Korea Advanced Institute of Science and Technology) Tadeusz Golonka Partner & Chief Technology Officer, Business Potential Discovery, Poland Tiago Cardoso Assistant Professor, Science & Technology Faculty New Univery of Lisbon Unni Ravindranathan Assistant Professor, Department of Business Information Systems, University of Iasi Valy Greavu Vincent Vergonjeanne Vincent Bellet Lead Developer, Societe Generale Corporate Investment & Banking, United Kingdom Virginia McFerran Chief Information Officer, Weill Cornell Medical College Wilson Ng The Hong Kong University of Science & Technology Yannick Lejeune Director of Internet Marketing Systems, IONIS Education Group

### **Global Imagine Cup Sponsors**

Microsoft would like to thank the following organizations throughout the world for their contributions to





Founded in 1975, Microsoft (Nasdaq "MSFT") is the worldwide leader in software, services and solutions that help people and businesses realize their full potential.

For more information, visit www.microsoft.com.



Education is a project that requires long lengths of time and effort, just like planting and growing a tree. This is a sector that requires extensive dialogues, long-term visions, and thorough deliberation. It is most important to look far out to the future when planning and implementing education policies.

In recognition, the Korean education ministry will be working to gather diverse opinions under a large coherent framework, to develop policies based on discussion outcomes, and to obtain public understanding and support when pursuing education policies.

We have made it a core mission to nurture the basic learning capacity in pre-school children, and to provide appropriate education for primary and secondary students with special ability in certain fields. It is also of our keen interest to push forth strongly with the specialization policy for higher education, so that universities may gain international competitiveness and cultivate talents qualified for the industry and local society. At the same time, there will be focused endeavors to expand lifelong learning programs and access across South Korea.

While there may be numerous approaches and voices to education, there exists one common understanding, which is that education should offer hope and create better opportunities for all. This is a crucial time for the ministry, the country, and the people, to work together in earnest for that very goal.



Seoul is a city of infinite discoveries. The capital of South Korea, Seoul is a city where the traditional and the cutting-edge exist in perfect harmony. It's a dynamic city that never sleeps, and the list of things to do is endless, from sampling the outstanding cuisine served in the city's excellent restaurants to climbing the rock faces that overlook the city. Come to Seoul, and learn why so many travelers fall in love with this fast-paced but relaxing city.

For more information, visit http://english.seoul.go.kr.



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In the year that ended March 31, 2007, BT Group plc's revenue was £20,223 million with profit before taxation of £2,484 million.

British Telecommunications plc (BT) is a wholly-owned subsidiary of BT Group and encompasses virtually all businesses and assets of the BT Group. BT Group plc is listed on stock exchanges in London and New York.

For more information, visit www.bt.com/aboutbt

# **Microsoft** Learning

Microsoft Learning provides Microsoft customers, partners, and academic affiliations with skills training and validation to help them realize their full potential with Microsoft technologies. This is accomplished through a rich and integrated portfolio of high-value learning and reference solutions to support learning needs throughout the product lifecycle. Training and certification products include: Instructor Lead Training; Technical and Non-Technical Certifications; Distance Learning; Simulations; Labs; E-Learning; E-Reference; Skills Assessments; and Learning Management tools.

For more information, please visit www.microsoft.com/learning.



SK Telecom has been providing telecommunication service since 1984 and commercially launched the CDMA service worldwide in 1996. SK Telecom is leading mobile network technology in the telecommunications industry in Korea, creating new value for the customers. SK Telecom is stretching its market beyond Korea's borders to new territory around the world.

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The Windows Live platform of Web services provides a platform that lets your customer share information and content to create vibrant online communities and social networking spaces. This will enable partners to extend their existing applications using global, industry-leading Web services or build new Web applications that leverage Microsoft core infrastructure and Web services platform. The central focus of this powerful new platform is built around four simple ideas: Build community-driven applications; enable users to store and access information from anywhere, on any device; communicate and build connection; and maintain trust.

For more information and to download SDKs, please visit http://dev.live.com/.

The Windows Live platform includes:

- Microsoft Silverlight Streaming
- Windows Live Contacts
- Windows Live Search
- Windows Live ID
- Windows Live Spaces Photo Control
- Microsoft Virtual Earth

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Channel 8 is a technical student community hosted by Microsoft, guided by students. Channel 8 is the place to be for students who want to code, connect to, and create technology. It's a place where you can find colleagues from your school or other schools, connect with friends from the Imagine Cup, search for Microsoft Student Partners, and meet students who love technology and want to learn more about it. It's the place to find information about all Microsoft student programs and connect with the people behind them through videos, interviews, comments, and ideas. Use Channel 8 to get plugged into tech news and share in the experience with students around the world just like you who want to see their creations come to life.

Channel 8 is a also your back door directly into Microsoft. You'll gain access to the inside scoop about our products, learn what it's like to work at Microsoft, and find information on cool and cutting-edge new products. This is the technology student's community-a place to share tips, brainstorm problems, check out what others are doing, and talk about what you think is cool.

Visit Channel 8: http://channel8.msdn.com.

# **Local Imagine Cup Sponsors**

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# **Imagine Cup 2008**

Imagine a world where technology enables a sustainable environment. A world where technology is an ally of the planet, not an adversary. A world where software enables us to interpret environmental indicators, predict the outcomes of our actions, improve our consumption of precious resources, and live more in balance with our environment.

In Imagine Cup 2008, we challenge the top student technologists around the world to actively contribute to the mission of protecting our world for generations to come. We are pleased to announce the 2008 theme: "Imagine a world where technology enables a sustainable environment."

For some, a sustainable environment means something as simple as breathing fresh air each time they open their window. For others it means making significant change in key environmental indicators. At Microsoft, we are inspired by the possibilities, and are honored to call on young programmers, artists and technologists around the world to step up to this worthy challenge.

In 2008, the Imagine Cup world finals will be held in Paris, France. The Imagine Cup 2008 worldwide finalists will discover that Paris offers fascinating gateways to scientific knowledge, artistic creation and historical adventure, through a program spread throughout the week. The digital face of the capital of France, a unique combination of innovation, technology and digital design, will enlighten an unforgettable experience of France.

#### Microsoft France



MAIRIE DE PARIS 🥹

A message from Bertrand Delanoë Mayor of Paris

® Henri GARAT\MAIRIE DE PARIS

Best known as an historical and cultural capital, the City of Paris is also deeply engaged in the Digital Revolution and the development of innovative approaches for the protection of our environment. In a world where technology and protection of the environment are key themes for future generations, I am pleased to welcome Imagine Cup 2008 to the city of Paris.



**SOUL OF ASIA** 





# BT, innovation at the speed of life

BT enthusiastically welcomes the opportunity to sponsor the Imagine Cup. In addition to fostering leadership and technical excellence – values that are close to the heart of BT – this competition provides direct support and encouragement to the next generation of technology innovators.

Al-Noor Ramji, CEO BT Design and BT Group CIO.

Innovation is the lifeblood of organisations that want to survive and thrive in a marketplace that's global in its extension and ferociously competitive. For BT, this means continually innovating and putting customers at the heart of everything we do – there should never be a gap between what is technically possible and what we deliver in the markets we serve. We achieve this by drawing on external sources and best practices to complement internal innovation assets. BT cultivates close links with innovation partners including academic institutions, external venturing partners and strategic business partnerships to create a global innovation network.

BT's IT strategy is based on transformation, innovation and speed. This model means that it is increasingly embracing agile development in order to meet rapidly changing customer and market demands. An example of this is BT's 'Inspiring Minds' initiative which brings together students in a 'hothouse' environment to develop innovative ideas through to prototypes and, potentially, commercial development.

BT and Microsoft have a history of working together, from simple licensing agreements to a Global Alliance Partnership. Championing innovation and research is a legacy that BT celebrates — it's this that makes the Microsoft Imagine Cup such a valuable opportunity for both BT and the participants. Students are given support to generate innovative and commercially viable solutions set to become technology 'must-haves' of the future. At the same time, it enables BT to nurture some of the brightest talent in IT today whilst continuing to develop BT Microsoft partnership activities.

BT, helping customers thrive in a changing world!

www.btplc.com/innovation





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