

• JAPAN 05 •

imagine  cup



This year nearly **17,000 students** from more than **90 countries** competed in the Imagine Cup, making it the **world's largest** and most inclusive **student technology competition**.

Microsoft congratulates **student technologists** everywhere for their **achievements** this year, and looks forward to continuing to help **students everywhere** connect, innovate, and **realize** their **potential**.

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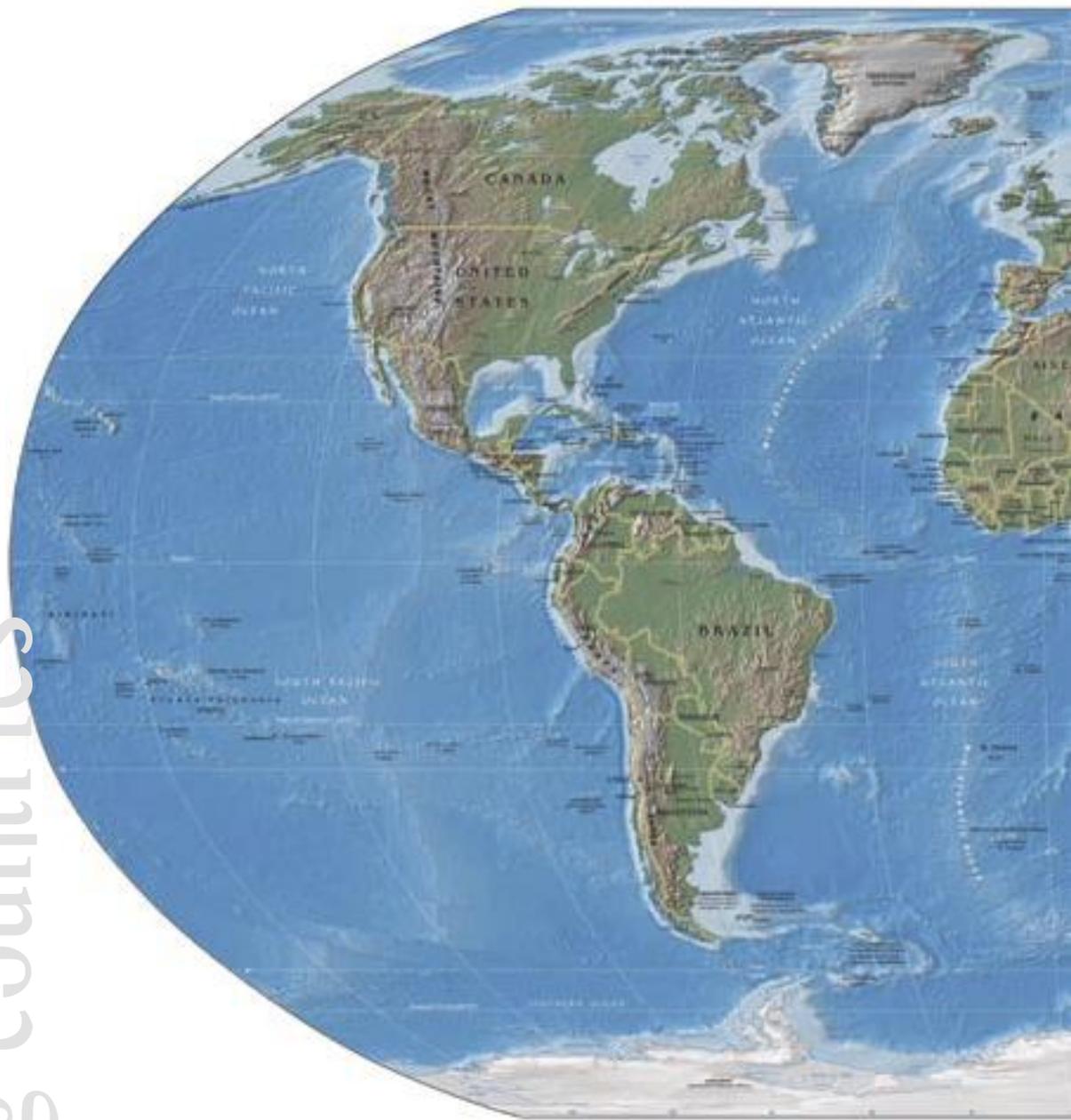
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participating countries



Algeria
Argentina
Australia
Austria
Bangladesh
Belarus
Belgium
Bolivia
Bosnia and Herzegovina
Brazil
Bulgaria
Canada
Chile
China
Colombia
Costa Rica
Croatia/Hrvatska

Cyprus
Czech Republic
Denmark
Dominican Republic
Ecuador
Egypt
El Salvador
Estonia
Ethiopia
Finland
France
Germany
Greece
Guatemala
Honduras
Hong Kong

Hungary
India
Indonesia
Iran
Ireland
Israel
Italy
Jamaica
Japan
Jordan
Kazakhstan
Kenya
Korea
Kyrgyzstan
Latvia



participating countries

- | | | |
|-------------|---------------------|---------------------|
| Lebanon | Peru | Sweden |
| Lithuania | Philippines | Switzerland |
| Macedonia | Poland | Taiwan |
| Madagascar | Portugal | Tanzania |
| Malaysia | Puerto Rico | Thailand |
| Malta | Romania | Trinidad and Tobago |
| Mauritius | Russian Federation | Tunisia |
| Mexico | Saudi Arabia | Turkey |
| Moldova | Serbia & Montenegro | Ukraine |
| Morocco | Singapore | United Kingdom |
| Nepal | Slovakia | United States |
| New Zealand | Slovenia | Uruguay |
| Norway | South Africa | US Virgin Islands |
| Pakistan | South Korea | Uzbekistan |
| Panama | Spain | Venezuela |
| | Sri Lanka | Vietnam |
| | | Zimbabwe |



Welcome to Yokohama!

Like you, we've been dreaming about this for the last 12 months, and we're excited to finally meet you here. This being our 3rd Imagine Cup, our advice to you is to relax and enjoy this moment.

Together, you're the world. With the best students coming together, you have many opportunities to exchange ideas, experiences, code, and email addresses. Connect with as many people as you can; you may see them again soon.

Together, you will lead. As finalists of the Imagine Cup, you have already established yourselves as the technology leaders of your generation. Each of you will go on to make important contributions to research and businesses throughout the world. Lead with your head and lead from your heart; make the world a better place.

Together, you will inspire. Those who are younger will look up to you. Those who are older will learn that dreams can come true. Everyone, including your children and their children, will want to know what happened. Be a role model, remember your roots, and thank your parents.

Together, you will change the world.

On behalf of Microsoft, we'd like to welcome you to the World Finals of Imagine Cup 2005.

Good luck and best wishes for all of your future endeavors.

The Imagine Cup 2005 Team

This is my second year at the Imagine Cup world finals - last year was a heartfelt experience for the attendees, including myself, and it's with great anticipation and excitement that I prepare to attend the event this year. Over the past three years the Imagine Cup has come to signify more than excellence in technology and art. One of the things I remember vividly about last year's finals in Brazil is the camaraderie that developed amongst students. Even though they were competing, students were genuinely interested in each other's projects and successes. The bonds formed through the competition have lasted long beyond the finals, and it's the formation of this Imagine Cup community that brings us the most pride as the primary sponsor of the event.



The global theme of this year's competition focuses on using technology to dissolve the boundaries between us. I feel this is an interesting and relevant theme for our times. Studies project that only 14% of the world's population will be online this year. While access to the internet is certainly not a prerequisite to lead a fulfilling life, lack of access can isolate and create an information gap. It was with this in mind that we set the theme as a call-to-action for students around the world to help dissolve boundaries through their creativity, innovation, and use of technology.

And they have: in the last 12 months, thousands of students all over the world have utilized technology to create software applications, systems, films, websites, and other work to bring the world closer together. The finalists in Japan represent the best and the brightest students from over 40 countries in every inhabitable continent. They're here for a week long of final competition, cultural immersion, and connection with one another. To further enrich their experience here, we've invited even more industry partners and faculty than we did last year to provide mentorship and feedback to students. All of them share our passion of helping students turn their aspirations into reality. I want to thank them for their participation and sponsorship of the Imagine Cup.

I also want to thank the City of Yokohama and the State of Kanagawa for hosting the event. They've been a most gracious host, providing extraordinary support. We've found this great city's blending of tradition and modern technology, as well as its diverse international citizens, to be an inspiring cultural manifestation of dissolving boundaries. I'm looking forward to the Imagine Cup World Festival on August 1, which will not only be a fitting conclusion for us to celebrate a wonderful week, but will also end with a bang, literally, with the annual Kanagawa Shimbun Fireworks Festival.

Finally, I look forward to seeing the outstanding student accomplishments, but even more so, I look forward to seeing the mark that they will undoubtedly leave in the years to come. Please join me in honoring the worldwide student finalists of Imagine Cup 2005, and in wishing them the very best in all of their future endeavors.

Sincerely,

A handwritten signature in black ink that reads "S. Somaségar". The signature is written in a cursive style with a prominent loop at the end of the last name.

S. Somaségar
Corporate Vice President Developer Division
Microsoft Corporation

muajcome



ABOUT THE IMAGINE CUP

Now completing its third year, the Imagine Cup continues on in its quest to showcase student innovation in technology and art. Five new invitationals were launched this past year, creating opportunities for web developers, IT students, Office developers, business students, and gaming/AI programming enthusiasts. Three invitationals also launched with separate pre-University divisions: Visual Gaming, IT, and Web Development, allowing younger students to participate. These eight new invitationals join the four from 2004: Software Design, Algorithm, Short Film, and Rendering, to form the twelve invitationals that make up the Imagine Cup competition.

Imagine Cup began in 2003, and has traveled the world westward from Barcelona, Spain, to São Paulo, Brazil, to Yokohama, Japan. The “cup” itself - a trophy given first in 2003 when there was only one category, Software Design, has spent time with the Software Design champions in both the United States (2003-2004) and France (2004-now). The cup will travel from Paris to Yokohama and be awarded to the winning Software Design team on August 1, who will keep it until next year’s Imagine Cup worldwide finals.

Finally, to become involved with more students, the Imagine Cup moved its online home in 2005 to theSpoke.net, the leading online community for student technologists. This enabled Imagine Cup students to connect with their peers and mentors via community features like blogs and message boards, as well as to gain access to the software needed to compete.



DISSOLVING BOUNDARIES

Gates. Fences. Walls. These are types of boundaries that are meant to keep us safe. However boundaries can also isolate, create misunderstanding and hamper acceptance. Paradoxically, the need for boundaries can often be abolished when people connect and achieve a common understanding, but too often we fortify our boundaries and hide behind them when we are confronted with unfamiliar situations.

For this reason, boundaries have separated us throughout history. Whether the boundaries were physical or metaphorical, emotional or intellectual, self-imposed or imposed upon us, cultural or biological, they have left both positive and negative legacies. Each of us grew up within these boundaries, some as ancient as civilization itself.

Imagine Cup 2005 challenged students to “Imagine a world where technology dissolves the boundaries between us.” The results were impressive in all the relevant categories. For instance, in the Software Design invitational, students showed us problems they saw in their world, and showed us how they would go about solving them. The applications are diverse in their subject matter, including healthcare, education, communication, and digital lifestyle. The abstract of their applications are included in this program guide. In the Visual Gaming invitational, students competed by writing algorithms directing nanobots to deliver medicine inside a patient’s body to save his life. In the Short Film invitational, students created films that illustrated their vision of how technology, old and new, unites people. Their work ranged from comedy to action to drama, but all made us think deeply about the boundaries between us.

Given the quality, we’re certain that some of the students’ work will live on beyond the competition. Even more so, we hope that the theme of dissolving the boundaries between us will remain with every student participant and that they will inspire their peers and others around them to join them in doing the same.

Imagine

ABOUT JAPAN

With a population of 127 million people across over approximately 378,000 square km, Japan is known as one of the most densely populated countries in the world. It consists of 4 major islands, with several thousand small islands, largely extended from North to South. Because of its extension, the climates in Japan vary from region to region; yet, the climate of most major cities is considered temperate with four seasons.

Japan is also well known for its strong economy; currently the second most powerful economy, measured by GNP, following the United States. Today's major industries in Japan are manufacturing, construction, distribution, real estate, services, and communication. Japan is politically structured in 8 regions and 47 prefectures. Yokohama, the capital city of the Kanagawa prefecture, with a population of over 3 million people, is the second largest city of Japan. When Japan started to open its ports to foreign trade in the late 1850's, Yokohama became one of the fastest growing cities in the country.

Due to this new and busy foreign trade, many foreign traders moved to Yokohama and settled in the Yamate area. Over 100 years after its rapid change, Yokohama is again growing its area with the development plan named Minato Mirai 21—Harbor of the Future.

Even with the futuristic skyscrapers in the center of the Minato Mirai 21, Yokohama, fortunately, has not lost Japanese traditions. Japanese people, in fact, have an appreciation for many different styles of traditional art. Garden design, for instance, has played an important role in Japanese culture, influenced by Shinto, Buddhist, and Taoist philosophies. Tea ceremonies, another traditional art, are still enjoyed in Sankeien, a beautiful Japanese garden in Yokohama.

In the late 1860's, fireworks, which originated in fire signals as a communication tool, became very popular in Japan. Fireworks were born again as an art by the Japanese. In the 1870's, stained fireworks with bright colors, called Yobi (Western Fire), were studied and the very first Western fireworks festival was celebrated in Yokohama in 1877.

In this nature—blending both Western and Eastern and the combination of tradition and future—Yokohama is the perfect place to have this year's competitions with the theme: Imagine a world where technology dissolves the boundaries between us, and warmly welcomes all participants with the word meaning welcome, Yokoso!

japan



CONTACT INFORMATION

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POLICE 110

EMERGENCY (FIRE, AMBULANCE) 119

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no coins or phone cards are needed as long as the phone
has an emergency call button.*

Press the emergency button and dial 119.

Information

SCHEDULE

DAY 1: WEDNESDAY, JULY 27

Narita International Airport

Hotel Pan Pacific - Yokohama

Students arrive in Tokyo's Narita International airport, where they will have some time to stretch their legs after a long flight. Shuttle buses will run continuously from Narita airport to Yokohama, and a guide will point out sights and provide interesting information along the 90 minute ride.

Upon arrival at the Pan Pacific Hotel in Yokohama, students will check in and then get ready for a welcome dinner and party at Blitz Yokohama, a famous local music hall.

DAY 2: THURSDAY, JULY 28

Hotel Pan Pacific - Yokohama

The day begins with the opening ceremony for all attendees. After the opening ceremony students break out based on their competition tracks. Software Design and Office Design teams will work on setup as well as do their light presentations. Algorithm, IT, and Visual Gaming teams will begin their 24 hour competitions. Short Film teams will get their final assignment and begin 30 hours of filming and editing.

Day 2 is an intense one, and meals will mostly be buffet style for time convenience. 24 hour competitors will work through the night, and others will be tucked away in rooms practicing presentations just one last time.

DAY 3: FRIDAY, JULY 29

Hotel Pan Pacific - Yokohama

The second major day of competition, day 3 begins with little formality. 24 hour competitors are already 16 hours through their challenge. Software Design teams conduct their formal first and second round presentations, as do Office Design teams.

By mid-afternoon, most 24 hour competitions will be done. To relax, dinner will be followed by a party

DAY 4: SATURDAY, JULY 30

Hotel Pan Pacific - Yokohama

On day 4, all attendees will take a half day trip to Sankeien Garden, a traditional Japanese garden in Yokohama. Sankeien is the former grounds of Sankei Hara, a wealthy businessman, who turned it over to a local foundation for preservation in 1953 for restoration, care and maintenance. At over 175,000 sq. meters, the Garden is expansive, and is a national historic landmark in Japan.

At Sankeien, students will participate in a traditional tea ceremony, enjoy lunch, and see some traditional Japanese cultural performances. We will take group photos at the garden, have some time to explore and relax before returning to the hotel for dinner.

After dinner on day 4 we host an Imagine Cup tradition - digital theater. This year we will feature the top rendering entries as well as the 30 hour short films. We will also announce the finalist 6 teams in the Software Design invitational, who will present one more time on Sunday for their final placement.

DAY 5: SUNDAY, JULY 31

Hotel Pan Pacific - Yokohama

On Sunday morning we will host a finalist workshop. In the afternoon, all attendees will gather in the Pan Pacific Auditorium for the Software Design Finals and Sunday Awards Ceremony. The afternoon will include the awards ceremony for Rendering, IT, Web Development, and Office Design. It will also include a screening of the 6 qualifying short films, and the final Software Design team presentations. The event will be opened up to local Japanese students, faculty, press, and other interested parties.

DAY 6: MONDAY, AUGUST 1

Hotel Pan Pacific - Yokohama

Students will be guests of honor at the Imagine Cup World Festival. Open to the public, the World Festival is a combination of technology fair, Imagine Cup awards ceremony, entertainment, and networking event. The event will be held in the spacious Marine Auditorium, and will feature local TV personality emcees, keynote speakers, and musical guests. Awards will also be given out for Algorithm, Visual Gaming, Short Film, and Software Design.

In the evening students will be treated to a VIP reception, dinner, and viewing of the annual summer Yokohama fireworks festival. Known throughout Japan, the August 1st fireworks show brings more 300,000 individuals to the Yokohama Bay each year.

DAY 7: TUESDAY, AUGUST 2

Hotel Pan Pacific - Yokohama

Narita International Airport

Our last day in Yokohama, students will coordinate with their Microsoft contact to check out of the hotel and travel to the airport to return home.



**Microsoft would like to thank the following judges
for their support of the Imagine Cup competition.**

Chris Amaris	<i>CTO, Convergent Computing, United States</i>
Prof. Dennis Anderson, Ph.D	<i>Pace University, United States</i>
Ricardo Anido	<i>Computer Science Dean, University of Campinas, Brazil</i>
Prof. Dr. Ing. Irina Athanasiu	<i>University of Bucharest, Romania, Romania</i>
Paul Babb	<i>CEO, Maxon Corporation, United States</i>
Mark Barry	<i>Senior Director, Emerging Business, Microsoft Corporation United States</i>
Bill Bishop	<i>Professor of Computer Science, University of Waterloo Canada</i>
Brian Blau	<i>CEO, Blue Rock Technologies, United States</i>
Martin Brown	<i>Producer, Australia</i>
LeVar Burton	<i>Actor/Director, United States</i>
Gary Casey	<i>Director Platform Engineering, BT, United Kingdom</i>
Sung-Deok Cha	<i>Computer Science Department, Korea Advanced Institute of Science and Tech, Korea</i>
Eric Chang	<i>Assistant Managing Director, Microsoft Research Asia China</i>
Sara Chen	<i>President, Cinezoic Media, China</i>
Richard Clark	<i>President, c2i, France</i>
Prof Aziz Derahman	<i>Dean of Faculty of Computer Science in UKM (National University of Malaysia), Malaysia</i>
Justin Ebert	<i>Senior Vice President, Anark Corporation, United States</i>
Brad Feld	<i>Managing Director, Mobius Venture Capital, United States</i>
Jonathan Fener	<i>Writer/Producer, United States</i>
Matevz Gacnik	<i>Development Division Manager, Gamma System, Slovenia</i>
Ivette García	<i>Director of the Digital Economy Group of the Mexican Ministry of Economy, Mexico</i>
Mitchell Goldman	<i>CEO, Hombre d'Oro, United States</i>

Tadeusz Golonka	<i>CTO, Business Potential Discovery, Poland</i>
Prof. Ke Gong	<i>Vice President of TsingHua University, China</i>
Carlos Guevara	<i>General Manager, Evolusoft, Republic of Panama</i>
Scott Hanselman	<i>Chief Architect, Corillian Corporation, United States</i>
Lisa Henson	<i>Co-Chairman and Co-CEO of the Jim Henson Company, United States</i>
Chris Hess	<i>Vice President Creative Services, Anark Corporation United States</i>
Thierry Joubert	<i>CTO of Theoris and Teacher, France</i>
Nauzad Kapadia	<i>INETA Asia Pacific, India</i>
Phillip Lee,	<i>Director, Hong Kong</i>
Josephine Leong	<i>Chair of Interactive Design and Development, Savannah College of Art and Design, United States</i>
Drew Lytle	<i>Group Program Manager, Microsoft, United States</i>
Scott Maxwell	<i>Managing Director, Insight Partners, United States</i>
Mr. Fumio Mizobata	<i>CEO, ILLUMINATE JAPAN Corporation, Japan</i>
Rand Morimoto	<i>President, Convergent Computing, United States</i>
Ganesh Natarajan	<i>Confederation of Indian Industry and National Association of Software Service Companies, India</i>
Chris Pacitti	<i>General Partner, Austin Ventures, United States</i>
Matt Pohl	<i>Development Manager, Microsoft, United States</i>
Nicholas Randolph	<i>Development Manager, AutumnCare Systems, Australia</i>
Bill Rehbok	<i>Director, NVIDIA Corporation, United States</i>
Eduardo Rossoff	<i>Director, Mexico</i>
Michael Sarnier	<i>Filmmaker, United States</i>
Dr. Ikuo Takeuchi	<i>The University of Tokyo, Japan</i>
Andy Tischafer	<i>Test Lead, Microsoft, United States</i>
Charles Wessler	<i>Producer, United States</i>
Jeff Williams	<i>Technology Manager, Digital Content Creation, Intel Corporation, United States</i>
Prof. Dr. Heinz Züllighoven	<i>Professor, Computer Science Department of the University of Hamburg, Germany</i>



ABOUT THE MICROSOFT TEAM

Whether you compete in a local software design competition or in an online invitational, chances are you already know someone on the Microsoft academic team, at least by name. We're a worldwide team of over 60 people who spend our days working with students and faculty to develop Microsoft's relationship with academia.

In addition to the Imagine Cup, our programs include theSpoke.net (online student community), MSDN AA (campus software licensing), and Student Ambassadors (campus representatives). We also give regular technical presentations on school campuses throughout the world, as well as conduct faculty conferences and workshops such as Academic Days. Finally, we provide feedback to the product development team, giving guidance on Microsoft's next generation technologies.

the team





SPONSORS

Microsoft would like to thank the following organizations throughout the world for their contributions to Imagine Cup 2005.

3i

ABC Computers (Pvt) Ltd

ABN AMRO Bank

Autodesk Corporation

Bilge Adam Bilgi Teknolojileri Akademisi

BT

Capgemini

CET Computer Equipment and Trade

CIEE

Creative

Game One TV

Gas Powered Games

Hewlett Packard

Intel Corporation

Joystick Magazine

Kaspersky Labs

LANIT

Netron Technology

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Omron

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Telenor

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ALGORITHM INVITATIONAL

The algorithm invitational highlights a **pure skill** that pushes the **boundaries of computation**. The discovery and use of the right algorithms, and clever implementations and application, are **building blocks** upon which the whole field takes collective steps forward. In a world with **infinitely fast** processors and **limitless storage** there would be less need for this art, but we have neither, and yet still attempt to **decode the human genome**, **route millions upon millions of packets**, search the entire internet, and much much more.

algorithm

AUSTRALIA



University Melbourne University
Team Member JOHN DETHRIDGE
Hometown Melbourne

BIO

John was born in Sale, a small town in Victoria, Australia. He attended school at Gippsland Grammar and Melbourne Grammar, and then went to Melbourne University to study pure math and computer science. He completed a bachelor's degree with honours in science and is now working on a Ph.D. in pure math. His academic interests are combinatorics, operations research, and algorithms. John won a gold medal at the ACM Inter-Collegiate Programming Contest in 2000 and first place in the 2002 TopCoder Open, and competed in the International Mathematics Olympiad.

WHAT IS YOUR APPROACH TO A CHALLENGING PROBLEM?

When I'm doing a programming competition problem I try to think of an approach to solving the problem while reading it, and start coding immediately when I'm convinced I can see a method that works, ironing out the details while writing the code.

HOW WILL YOU MANAGE THE FORMAT OF THE ALGORITHM FINALS?

With caffeine! The exact format of the contest is unknown to us before the final. We don't know how many questions we'll be getting and how much work they'll require, so perhaps I'll just be able to complete them all before I get tired..

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

Somebody water my plants and record "24" for me! And thankyou to my extraordinarily patient supervisor for letting me take so much time off for competitions!



CHINA



University Rutgers University
Team Member XIAOMIN CHEN
Hometown Shanghai

BIO

[Not so much has been changed since last year, so all I need to do is to insert some brackets here.] Xiaomin Chen was born in the small city of Shanghai in China. In Shanghai he lived, made friends, got very nice education in mathematics and computer algorithms among many other things, and went through various competitions and enjoyed some honor. Xiaomin is a huge fan of the Brazilian national soccer team for almost 20 years. [And happily discerns that the same is true for many Japanese people.] He is [still] a PhD student in Rutgers University, where he got to know some real geniuses and got the chance to play with them. Xiaomin is currently playing in the field of combinatorics and computational complexity. He proved a nice theorem in combinatorial geometry, and thus looked more like a mathematician. [His most recent result is about the human nature in the game of the Hanoi Towers.] Xiaomin now lives in New Jersey, close to a lot of friends with whom he shares the same hobbies (Brazilian soccer, mathematical puzzles, etc.).

WHAT IS YOUR APPROACH TO A CHALLENGING PROBLEM?

Look at it. Look at it again. And look more. In most cases the answer will pop up. [Thus the time complexity of a problem is simply defined as the number of times you need to look at it.]

HOW WILL YOU MANAGE THE FORMAT OF THE ALGORITHM FINALS?

I plan to eat a lot. I also would like to say that I will bring some novels, but this proved to be a bad idea last year.

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

Take care of my credit card bills.

CHINA



University Beijing University of Technology
Team Member XIAOSHI LU
Hometown Beijing

BIO

Xiaoshi Lu is a senior undergraduate student from Beijing University of Technology and he will not be a full-time student any longer from this July. When he was in high school, he didn't like science very much, but now he just enjoys the study of algorithm. He doesn't know why, either. Maybe it's just because he likes competition rather than standard examination which accompanies science all the time in China. In fact, all of his hobbies including soccer, basketball and a card game called Magic The Gathering contain fierce competition. Well, his accumulated knowledge about AI and math is much less than other competitors such as John Dethridge. He is just lucky to be one of the finalists this time, but he is very confident to give you a good performance if there is a soccer match during the final.

WHAT IS YOUR APPROACH TO A CHALLENGING PROBLEM?

```
Solution DealWithChallengingProblem(Problem problem) { if (I think I can't solve problem before the deadline even if I try my best) return null; if (problem is not deserved my try by main force) return null; Solution mySolution = new Solution(); while(it's before the deadline now) try to improve mySolution; return my Solution;}
```

HOW WILL YOU MANAGE THE FORMAT OF THE ALGORITHM FINALS?

When I believe I can find something in my dream I will have a nap, but now I think I will be sleepless during that period.

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

I will buy a present for each of you if I don't finish the final as the 6th place.



HUNGARY



University Eotvos Lorand University
Team Member ENDRE CSOKA
Hometown Debrecen

BIO

I was born in the town of Debrecen, Hungary on 18th November 1984. I like mathematics since I was a child, and it has been obvious for a long time that I will be a mathematician. I have participated 3 times in the International Mathematical Olympiad, all the 3 times I have gained a silver medal and I have been once more in the International Olympiad in Informatics. I have some other significant national results in mathematics, informatics and physics too. I have a fifth place in the Central-European ACM. Now I am a 2nd year student at the Eotvos Lorand University, my major is mathematics. I will specialize to the theory of algorithms.

WHAT IS YOUR APPROACH TO A CHALLENGING PROBLEM?

It depends on the problem. If I reckon it as a really interesting problem then I will make everything to solve it with a great desperation, but if it's not interesting, it is hard to bring myself to engage with it.

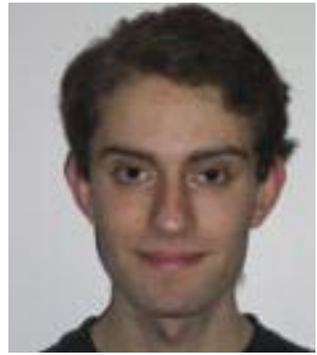
HOW WILL YOU MANAGE THE FORMAT OF THE ALGORITHM FINALS?

It depends on what we have to do. If we have to write a big program, and that's why we have that much time, I will have no chance. But if it is because we have to find a really difficult algorithm, the more time we have the better it is for me.

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

If I want to say anything to a friend of mine, I tell it personally. :-)

UNITED STATES



University Massachusetts Institute of Technology
Team Member MICHAEL LIEBERMAN
Hometown Warminster, PA

BIO

I just finished my sophomore year at MIT, where I am majoring in Computer Science and Math. This past fall I really enjoyed an Intro Algorithms class, and after that I took some more advanced classes in the spring. Though I know a lot about the theory of algorithms, I have little experience actually implementing them in practice. The semifinals of this competition were organized in a way such that a couple of elegant insights were extremely useful, while traditional programming knowledge was useless. If the finals are similar, then maybe I'll have a chance.

WHAT IS YOUR APPROACH TO A CHALLENGING PROBLEM?

I sometimes walk around, turning the problem upsidedown in my head until I find the right way to look at it.

HOW WILL YOU MANAGE THE FORMAT OF THE ALGORITHM FINALS?

I'll try to get a lot of sleep the night before.

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

NHDKVH YI NMSE BC RXH KNYOH UYTH; B XKOH YCPQ LVYOHT BR
UYVVHUR, CYR RVBHT BR.



VIETNAM



University Nanyang Technological University - Singapore
Team Member NGUYEN PHUONG NGOC
Hometown HAIPHONG

BIO

Hi everybody, my name is Nguyen Phuong Ngoc, a.k.a Stanley. I was born in Haiphong, the third biggest city in Vietnam. I'm studying in 3rd year in Nanyang Technological University, Singapore. During my years in primary school and secondary school, I loved playing around with Maths. My Maths teacher discovered my ability, and I was soon put into a team to represent the city in the nationwide Maths competitions. And I did not let him down since later I brought back two medals from the competitions. My IT career didn't start until I entered highschool, when I first got chance to land my hands on a computer. And it was like love at first sight. I felt so thrilled thinking about myriad opportunities that a computer can open, just by writing some simple programs for it. While my classmates were still struggling to learn the programming language, I already felt that I had what it takes to become exceptional in this career. Until now, I have got six-years programming experience, with two IOI medals, two being in ACM/ICPC World Ranklists. I want to become a good, white-hand programmer :-)) Besides programming, I like sports and computer games. I play football twice a week with my friends, and do game programming in EyePower Games, my Internship Company.

WHAT IS YOUR APPROACH TO A CHALLENGING PROBLEM?

1. Read problem statement carefully 2. Did I solve it or one similar with it before? If yes, jump to step 7. 3. Coding Phase 4. Testing Phase. If not accepted and still have time, go back step 3. If accepted, jump to step 7. 5. Asking Phase, from internet, books, friends ... If successful, jump to step 7. 6. Cry and go to step 6 :-)) (7. Smile and go to step 7 :-))

HOW WILL YOU MANAGE THE FORMAT OF THE ALGORITHM FINALS?

I never did any competition consecutively in a whole day. The longest one was only 12 hours, and that time I felt very tired. This time I'm sure it will be different because I will have 12 more hours to rest :-)) For this kind of competition, I think the fast problem solving skill is not the most important. To prepare for the final, I will practice implementing the big, long-code problems as well as some advanced algorithms. In my opinion, the most advantage you have in this competition is your long-term knowledge, not just a few months preparation.

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

To my darling, I honestly believe in the old saying "Behind every successful man, there's a good woman". I want to give my big thanks to you, who always stands beside me and believe in me To my roommate (we are staying in the university campus), thank you for supporting me. You helped me a lot when I was busy for this competition, like cleaning our room, cooking the dinner... through whole a month :-)) To my colleagues, thank you for the programming experience and the self-confidence I learned from you. To my family, I don't have enough word to tell how much I love you. I'll try my best to make you all always happy and proud of me.



BUSINESS PLAN

The business plan invitation seeks to more formally

bridge two areas that are often loosely coupled - **student**

technology innovation and business planning. The background work

that goes into making a case for a **business/opportunity**

helps define and shape technology, and **vice versa**. Students in

this category built plans around the theme of **technology that**

bridges the digital divide, and created everything from market

opportunity maps, to implementation plans and timelines, to cash

flow projections and investment needs.

business plan

INDIA



Team Name DEVIMAGING
University NIT Jamshedpur
Team Members ABHISHEK SINGH (Ayodhya)
M. UDAYA BHASKAR RAO (Hyderabad)

OVERVIEW OF TEAM

The team “DevImaging” consists of Abhishek Singh and Udaya Bhaskar Rao, both of whom are B Tech (Hons) - 3rd yr students at National Institute of Technology. Abhishek is a research oriented person. He has successfully lead teams for accomplishments of various projects - some of them include - a) Fabrication of microscope to image even atoms (which has won Texas Instruments Design Award 2004), b) Led a team for rediscovery of ancient Indian science and technology - which manifested itself as eye-opening Vedic Technology Museum in the college campus. He has been winning prizes for presenting his novel papers and is filing patent for them, as well. His interests range from Economics to Microbiology; but is passionately interested in Theoretical Physics, and is presently engaged in study of superconductivity of thin-films.

The other team-member is a rare expert in the college, who often teaches his teachers. A Computer whiz-kid, Udaya Bhaskar Rao, is passionately interested in System Software designing. He is also interested in Website Designing and has often designed the site of the college as well as other private firms! To bite off the nails, he is right now designing his own Operating System!!

The team is determined to set standards in the field of instrumentation, automation and national self-reliance.

OVERVIEW OF TEAM

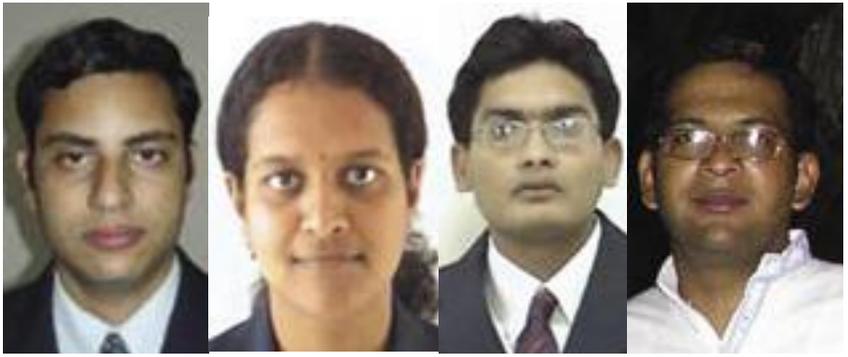
To extend the digital revolution to a larger number of people and to bridge the digital divide, the team is proposing a novel self-designed Hand-held Integrated Medical Diagnostic System, which promises to provide crucial life-saving diagnosis to the common man. The incredible cost (- \$ 6000), and the associated bulkiness of existing ECG/EEG/EMG has denied a large chunk of population off this important life-saving diagnosis.

The team is proposing to fabricate a hand-held Palm-top / PDA based imaging / diagnostic system capable of instantaneously producing ECG/EEG/EMG reports. The proposed product also integrates within itself a novel digital stethoscope* (a concept fundamentally designed by the team), with Bass and Treble control, offering doctors to hear and filter voice of interest and analyze them. The innovative feature of this stethoscope is that it can even image the cough congestion - thus, enabling doctors see what they were hearing so far.

The integrated diagnostic system offers a flexible, cheaper (about \$ 300) and portable version of existing bulky and costly counterparts. The efforts of the team will make ECG/EEG/EMG a common equipment available in ordinary dispensaries. The Team further aims to commercialize this product soon, so that this important technology comes in market as soon as possible.



INDIA



Team Name PROGREEN
University Bharathidasan Institute of Management
Team Members SANTHOSH RAMDOSS
ANAND VENKATARAMAN
DEEPAK KUMAR BHATTER
ANITA PARTHASARATHY

OVERVIEW OF PROJECT

ProGreen is a social venture committed to bringing marginalized communities in rural areas to the mainstream of economic activity, through:

- Identifying and harnessing sustainable business opportunities driven by IT
- Formation of rural micro cooperatives

The business opportunity that ProGreen intends to leverage upon is a rural BPO cooperative, providing outsourced 'data entry and conversion' services.

The marketing plan

ProGreen does not intend to be a full-fledged BPO company, but only an 'enabler' in assisting the large BPO firms to tap affordable talent in rural areas. In this process, the larger firms will benefit from reduced wages, steady & reliable source of manpower, no 'attrition issues' and an opportunity to adopt socially responsive practices.

Implementation Plan

ProGreen will group the members to initiate the cooperative and provide a common worksite, with connectivity, from where the BPO cooperative can function. ProGreen will also focus on training members with requisite skill sets. Further, ProGreen will interface with large BPO players to sub-contract work from them.

Potential Social Impact

ProGreen acts as a social change agent primarily through the economic empowerment of cooperative members. By becoming a part of the BPO cooperative each member on average will be able to earn \$1,100 per year. Economic empowerment also leads to other social benefits like Improvement in Health & Nutrition, Sanitation & Hygiene, Bridging the Gap between rich and poor and Preventing Migration to Urban Areas.

ProGreen thus also bridges the digital divide through the cooperative members, who become 'Information Leaders' in their respective communities.

business plan





Team Name OSKI
University University of California, Berkeley
Team Members NELSON CHAN (Diamond Bar, CA)
CHRISTOPHER NGUYEN (Laguna Hills, CA)
CHRISTOPHER FAN (Lafayette, CA)

BACKGROUND ON TEAM

We are three UC Berkeley students studying Business at the Haas School of Business. Nelson Chan also studies economics and is currently the president of Students for Responsible Business.

Outside class, Nelson plays the piano and listens to classical music. Together with Christopher Nguyen, Nelson founded the Berkeley Classical Music Society. Christopher Nguyen will be a senior during the fall semester. In addition to taking more accounting classes, Christopher will lead the Berkeley Quiz Bowl Club to more glorious heights. He plans to tackle more business cases to apply the knowledge he has gained through the classes. He has taken to playing football (soccer for those in the States) in his spare time. Christopher Fan currently is a senior studying Computer Science and Business Administration. He will teach a student class discussing the business dynamics of the information technology industry in the fall.

BACKGROUND ON TEAM

The team firmly believes that technology and business can work together to provide the best benefit to mankind by improving the standard of living. Our business plan seeks to improve living standards by disseminating medical knowledge through the Internet. We feel that in most developing nations, the local general practitioner is severely isolated from other medical resources. While the practitioner is capable of dealing with routine cases, there are few resources that the general practitioner can readily access in the cases that fall outside the scope of his expertise.

Our idea was to bridge the knowledge gap by providing the general practitioner with a service where he can contact specialists to obtain the information necessary to make an accurate diagnosis and treat the patient successfully. Our analysis has shown that by uniting various medical communities, we can draw upon the network effects to create a win-win situation for all stakeholders. Ultimately, we hope that our plan will allow the rural communities to receive greater medical treatment and attention through our network. We initially targeted India to perform a country analysis due to the standardized use of English in medical correspondence. From our findings in India, we are confident that our business model can be abstracted to other developing nations in the world.





INFORMATION TECHNOLOGY

The IT and IT high school invitationals highlight 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 **custom** needs and configurations require an intimate understanding of how all the pieces work, **how far they can be pushed**, and how robustly they will function. **Think about all this** the next time you access your VPN wirelessly from a coffee shop or see timely updates and patches **automatically deployed** onto a networked machine.

AUSTRIA



University Vienna University of Technology
Team Member ANDREAS TOMEK
Hometown Vienna

BIO

Hello, my name is Andreas Tomek and I come from Austria. I was always fascinated with IT, administration and security. During my highschool time I worked part time in helpdesk and technical support. After that I started my civil service and working part time as an W2K Administrator. Meanwhile I certified as an MCSA and MCSE in Windows 2000. Following that I started studying Business Informatics, as well as Internet Computing and Software Engineering at the Vienna University of Technology and worked part time as a trainer for network administration. Last autumn I switched to working in Information Risk Management for KPMG Vienna and in april 2005 I finished my studies with a specialication in IT security. Further I teach some security courses at Vienna University of Technology.

WHAT IS THE COOLEST TECHNOLOGY WE'RE GOING TO SEE IN THE NEXT 5 YEARS?

The full integration of process oriented applications and application development, automatic software distribution and resource allocation and the dynamic management of the whole enviroment. It will be interesting and challenging to streamline processes, implement MOF and integrate all this with the System Center Wave 1-3 products.

information technology

FRANCE



University INSA de Lyon
Team Member STEFAN PLIZGA
Hometown Chatellerault

BIO

My name is Stefan Plizga. I am 22 years old. That's my last year as a student. I am now finishing my studies at INSA de Lyon, a engineering school in France. During my studies, I did technical support on Microsoft products for the National Education in France...That's was a great experience! I have learned a lot of things about Microsoft technologies..

WHAT IS THE COOLEST TECHNOLOGY WE'RE GOING TO SEE IN THE NEXT 5 YEARS?

The coolest technology will be, for me, a technology which can improve communication between people in the world. I like Exchange Server, and this product has really good features for mobility. I hope there will be new features to do more and more with mobility and communications!

GERMANY



University FOM Munich - University of Applied Sciences
Team Member CHRISTIAN MEYER
Hometown Munich

BIO

I'm 26 years old and live in Munich. I'm studying business information systems in the 4th semester. Before I did a triennial technical training. I like to play soccer, listen to electronical music, have fun with friends or just relax in the great outdoors.

WHAT IS THE COOLEST TECHNOLOGY WE'RE GOING TO SEE IN THE NEXT 5 YEARS?

Wireless electricity and wireless connections between every device at home.

information technology

ITALY



University University of Rome “La Sapienza”
Team Member HERNAN LIONEL CIANFAGNA
Hometown Buenos Aires

BIO

Born in 1984 in Buenos Aires, Hernan got his first computer (a ZX Spectrum) when he was seven and immediately began programming. By five years he attended a computer science oriented technical high school, in those years he competed on several events and, in 2001, he participated at the 52nd Intel International Science and Engineering Fair as a finalist. In 2002, he moves to Italy and started working in the IT field. In 2003, he begins studying at the University of Rome “La Sapienza” as a distance learning student. Today he is an MCP, works full time as an informatics consultant for a local IT company and simultaneously is an informatics engineering sophomore student.

WHAT IS THE COOLEST TECHNOLOGY WE’RE GOING TO SEE IN THE NEXT 5 YEARS?

The Universal Networking Language (to be ready by 2006) united to new wireless devices, powerful processors, wonderful algorithms, AI, IPv6 networks, great nanotechnology advances, and committed people like theSpoke’s members, will be breaking up language barriers, rationalizing laws, and automating an uncountable number of things, permitting human genre to walk forward towards the future.

Information technology

ROMANIA



University "Politechnical" University of Timisoara
Team Member EMANUEL PENTESCU
Hometown Timisoara

BIO

The beginning - I saw my first computer about 10 years ago, back in 7th grade; it was a "Commodore" with a tiny green display.

In high school I studied computers as a specialization, mostly Pascal and C programming on 286 computers running DOS, we had only on win3.1 computers J. I was not a very good programmer, I spend most of my time trying to hack the Novel Netware supervisor password and fixing thinnet connectivity.

When I finished high school I enrolled in Economical University of Cluj Napoca. I wanted to be a manager :). The school was a post communist joke in terms of knowledge so after I completed my first year I bailed out.

I spent one year home, all night in front of my computer all day sleeping

My best friends Tibi Toader and Gemenel Claudiu who were studying computers at that time convinced me to join them at the Timisoara University. They even bought me the admission curricula from their own savings because I was broke.

Ascending - I was accepted at the University in the short form program (3 years) that I finished and I got my Associate Degree.

I'm currently enrolled in the Bachelor Degree program, I have one year left. More important that school in the first year is that I met the people from Microsoft Academic Program (formally named ACSP). They had lots of MCSE books that could be lent to students, and they also gave exam voucher if you could pass the exam tests. I studied hard and I obtained the MCSA certification paid by Microsoft :).

I currently teach pro bono MCSE classes to students at MAP so I could give some back.

Teaching - I've done a lot of Microsoft based projects for many companies from small "you would not remember there name" ones to big ones like Alcatel. About two years ago I had an opportunity to become a Microsoft trainer for a local CPLS. I became an MCSE, I was accepted in the MCT program and have been teaching ever since.

My company - Earlier this year I've started my own company named "United Gurus" that offers Consultancy, Design and Administration mostly for Microsoft and Cisco technology (sometimes Linux too :))

WHAT IS THE COOLEST TECHNOLOGY WE'RE GOING TO SEE IN THE NEXT 5 YEARS?

I believe that computers would be adopted like electricity was years ago. All our home machines including the fridge would have microprocessors in them and will be connected to a network (most likely the internet). All equipment will have an IPv6 address and will have remote, ordering or reporting capabilities depending on the case. People will be closer to each other - sometimes too close, the software market will grow a lot, and the need for network engineers like myself will be huge. Ahhh, and one more thing, all these machines will run windows of course :)

ROMANIA



University “Alexandru Ioan Cuza” University of Iasi
Team Member VALY GREAVU
Hometown Iasi

BIO

1. Family name: GREAVU-SERBAN
2. First names: VALERICA
3. Date of birth: June 14, 1976
4. Nationality: Romanian
5. Civil status: married

6. Education:

* 1990 - 1994 Economic High School, Commerce Field

* 1994 - 1998 Faculty of Economics and Business Administration, Alexandru Ioan Cuza University

* 1998 - 1999 Master of Business Information Systems, Faculty of Economics and Business Administration, Alexandru Ioan Cuza University

* 1999 - present, PhD Student, Business Information Systems Field, Faculty of Economics and Business Administration, Alexandru Ioan Cuza University

Key qualifications:

implementing, designing and maintaining Active Directory network, Share Point Portal, Exchange 2003 and IIS Web server at Faculty of Economics and Business Administration

WHAT IS THE COOLEST TECHNOLOGY WE'RE GOING TO SEE IN THE NEXT 5 YEARS?

I think that the coolest technology that we will see in the next 5 years will be in biotechnology, developing biological microprocessor but just for testing and scientific communities.

In software I think that the coolest technology will be the new generation of operating systems that will improve C.I.A. and LDAP integration of applications and web authentication.

INDIA



High School The International School, Bangalore
Team Member VARUN SRINIVASAN

information technology
high school



ROMANIA



High School “Grigore C. Moisil”

Computer Science High School of Iasi

Team Member CIPRIAN COSTIN

Hometown Iasi

BIO

Hello, my name is Ciprian Costin and I was born in Iasi, Romania. I'm 17 years now and I'm really interested in reading more and more about IT technologies. When I was a little bit younger I participated in international piano competitions, where I won some prizes, but nowadays I'm more fascinated by composing, creating music with and for the piano, in which I already received a second international prize for one of my compositions. I love playing piano in recitals, especially interpreting classical, romantic-era music and my own pieces. I also won some prizes in Mathematics and Informatics, including national competitions and Olympiads in Computer Science. In my rare free moments, I enjoy listening music, playing the piano, composing post-romantic and film music, and reading about new trends and discoveries in science and technology.

WHAT IS THE COOLEST TECHNOLOGY WE'RE GOING TO SEE IN THE NEXT 5 YEARS?

My opinion is that the 4G standard for mobile devices will be a significant input in communication. A great step will also be done in medicine and pharmacology, according to genome structure new discoveries, in a trend greatly influenced by nanotechnology machines. We can imagine routine interventions on brain, heart, or in circulatory system, made by the help of the intelligent nano-robots, including telemedicine. Stem cells artificial growing and large utility will also cure very complex diseases. On the other hand, DNA and genome computing are going to influence and restructure the way we are actually programming, creating highly interactive intelligent software. Intelligent prosthesis used on large scales becomes also a must. Fuzzy systems are usual presences in actual technology, fuzzy processors and microchips coordinating feed-back devices meant to serve humans. New structures of artificial neural networks continue to learn human way of acting and apply it in a wide area of mecatronics technologies.

UNITED STATES



High School Walter Payton College Prep
Team Member BRIAN DESMOND
Hometown Chicago, Illinois

BIO

I am an IT consultant for Blackwell Consulting Services out of Chicago, IL. I am a consultant to the third largest school district in the United States. There I am a member of a small team responsible for a half million user, 60,000 mailbox, 60,000 workstation, 650 site Active Directory and Exchange environment. I also maintain the district's Sharepoint infrastructure. I am also a Windows Server MVP for three years now.

WHAT IS THE COOLEST TECHNOLOGY WE'RE GOING TO SEE IN THE NEXT 5 YEARS?

Compact storage/cards. People already carry usb thumbdrives around - they hold a couple gig max. Flash memory already supports 8GB. That number is going to continue to rise. Integrating this with a smart card type device will allow people to carry all manner of information on their person and use it in their day to day lives.

information technology
high school







OFFICE DESIGNER

The Office Designer invitational calls on student teams to **create** software solutions **on top of and around** the Office platform. The **motivation**: everyday users of Office have needs that aren't always addressed by just one Office product, or all the products loosely linked. Teams in this category have **mastered skills** like **exchanging data** seamlessly between applications, **creating** custom interfaces and frameworks, and **integrating** their applications into Office to create a much **richer and productive** user experience.

Office
designer

BRAZIL



Project Name ArtiFACTORY **Team Name:** Solvent-OD
School Name Federal University of Pernambuco
Team Members ANDRE WILSON BROTTTO FURTADO (Pernambuco)
ADELINE DE SOUSA SILVA (Pernambuco)
MADSON MENEZES COSTA (Pernambuco)
RAONY MASCARE NHAS DE ARAUJO (Pernambuco)

PROJECT OVERVIEW

ArtiFACTORY is an XML and Microsoft Office based solution for the integrated creation and maintenance of artifact sets, such as software development process artifacts or documents for other business processes. Its purpose is to dissolve overhead and bureaucratic boundaries by providing a new level of automation and guidance to the generation of artifacts. The solution is composed of three tools. The ArtiFACTORY Modeler is targeted at domain experts, who will be able to specify artifacts (Word and Excel documents) for a new artifact set, as well as to specify the sections and subsections of each artifact and how guidance will be provided when artifacts are being filled. ArtiFACTORY Consolidator imports artifact set specifications generated with ArtiFACTORY Modeler. Using the Consolidator, one can provide content to an artifact and request its generation, choosing a specific formatting style. Finally, ArtiFACTORY Discoverer is used by an artifact resource collector to upload, to ArtiFACTORY Consolidator, multimedia content (such as pictures, sound or video) which will be linked with artifact sections and will appear in the Document Actions task pane. Finally, it is worth noticing that ArtiFACTORY is not a competitor of project life-cycle management tools, since it is focused on artifacts and their integration to development methodologies. On the contrary, we believe that ArtiFACTORY can be turned into a plug-in for such tools. Microsoft Visual Studio Team System, for example, is a strong candidate for ArtiFACTORY integration, since it is also targeted at software development processes automation in general (but not specifically in artifact automation).



CHINA



Project Name SCY
School Name Nankai University
Team Members SUN MINGZHU (Tianjin)
CHEN XIAOYU (Tianjin)
YU YUE (Sichuan)
YE DANQING (Zhejiang)

BACKGROUND ON TEAM

Are you still using Notepad, Word or Excel to manage your references when writing papers? Try M.Y.Reference, we believe it's the best choice.

Are you still troubled with numbering the references and changing the order when modifying your paper? Try M.Y.Reference, and you will get rid of these troubles forever.

Is it too boring to write the bibliography by hand? If your answer is 'Yes', just try M.Y.Reference.

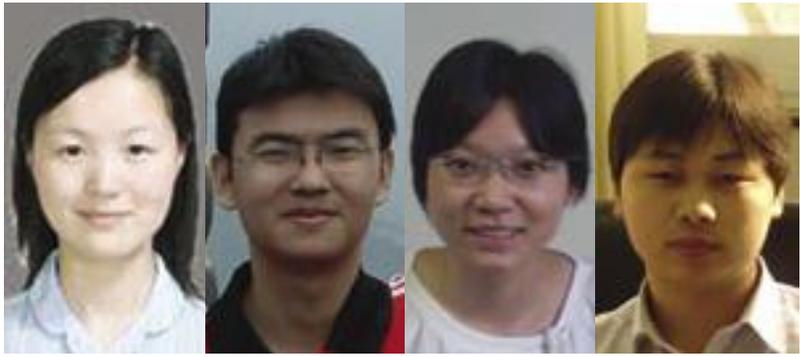
M.Y.Reference—a good helper for reference management! With its help, paper writing will become much smoother!

M.Y.Reference includes a Microsoft Word add-in as the client application, which can be used independently. We use Smart Document to connect it with an Access database. You can use the Data Browser to manage your references, as well as do it on our website. Also, M.Y.Reference provides a management center of references based on Web Services, therefore everyone can have own his Personal Data Set and share it with others. 'One for All, All for One'.

The knowledge can be shared in a much easier way.



CHINA



Project Name PAPER GENIUS **Team Name:** PALADIN
School Name Huazhong University of Science and Technology
Team Members YANG YONG ZHI (Hong'an, Hubei Province)
HE CONG (Tong Cheng, Hubei Province)
LIU TIE FENG (Xian Tao, Hubei Province)
YANG LI ZHEN (Jiu Jiang, Jiang Xi Province)

PROJECT OVERVIEW

Human beings are continuously discovering our amazing blue planet. Through researching activities, people can know the world more clearly and make life easier. In the modern society, papers become the most important carriers of human's research. Our project is focusing on the writing, collecting, storing and publishing of the papers.

The whole project is composed of three parts:

Researcher's application: This part is based on the Word Smart Document and Web Services. Smart Tag, Research Services and Action Pane are adopted to realize the functions of this part. In this application, researchers can search and review the information of papers in the research pane, add references into the context by searching results, and submit papers to publishing companies by using the function in the Action Pane in Word.

Editor's application: This application is based on the Word Smart Document and Web Services. The editor can review all the papers which were submitted by researchers. They can also decide whether to choose the papers in the format of Word. This application can also send the papers to the electronic paper companies automatically.

Electronic Paper Company: This application is based mainly on Web Services. A registration service is defined to allow editors to publish the papers to the Electric Paper Company via Web services. The searching service is defined to allow researchers to search the papers online via Web services.



COSTA RICA



Project Name FRANJOMANES

School Name Instituto Tecnológico de Costa Rica

Team Members Manfred Schosinsky Garcia (San Jose)
Francinny Picado Araya (Turrialba)
Esteban Villalobos (Heredia)
Leonardo Alvarez (Cartago)

PROJECT OVERVIEW

“A better World for tourism” is a suite of software applications developed for the Microsoft Office Platform by using Microsoft .NET. The main objective with this product is to provide small travel agencies with an affordable and easy to use set of tools which help them to better manage the customer service process.

The suite includes tools for the following business scenarios:

1. Defining tours and making reservations for those tours
2. Managing the contracted tours
3. Searching tours by different topics
4. Translating the tour information to the customer preferred language.

According to the business scenarios the application includes the following modules:

A set of InfoPath documents to create tours and reservations. This module also includes an Excel document used to list all the contracted reservations in a period of time. The reservation Infopath document includes a task pane to search for tours based on different criteria like category, cost and zone.

A set of Smart Tags for recognizing tours and reservations ids. Once recognized, the user has the option to see a Word Document with detailed information about the selected tour or reservation. The detailed Tour and Reservation documents were developed with Visual Studio Tools for Office 2003.

A Research Services based task pane to search for tours based on keywords contained at the tour description. This task pane includes a smart tag for each displayed tour in order to allow the user to see a Word Document with detailed information about that tour. This smart tag gives the user the option to translate the tour information to its preferred language (the Google translation Web Service is use for the translation process)

Office Designer

JAPAN



Project Name EleP **Team Name:** The Quester
School Name Kaijo Senior High School
Team Member YUTO TAKEI Urayasu, Chiba

BACKGROUND ON TEAM

EleP (Electronic Paper) is a document exchange system, which is completely integrated with Microsoft Office using VSTO 2005. EleP has build on 2048bit key RSA cryptograph system so it is outstandingly secure. When you sign up to the system for the first time, your own key pair will be generated. All connection between your computer and EleP system are encrypted with the key. Although the system is of the highest security, it also has great usability. EleP has a tour to introduce users what EleP can do, how to use, or how amazing EleP is. Based on the simple interface, EleP is very easy to use. But it is not just a simple interface - there is an extensible API library for developers. You can develop client applications using EleP web services using the API. One of the most notable functions is the search system. You can use different search engines for what you are looking for. On phrase keyword search, detailed expression search, or formula search. As the search result, you can use RSS. With RSS, you can collect the newest information using an aggregator. Taking these secure, useful, extensible and ingenious functions into consideration, EleP is the best system to exchange documents.



RUSSIA



Project Name FIBRA

School Name Moscow Institute of Aviation (Technical University)

Team Member SERGEY DUBOVIK

PAVEL ZADUMKIN

DMITRY KOZLOV

ANASTASIYA FILINOVA

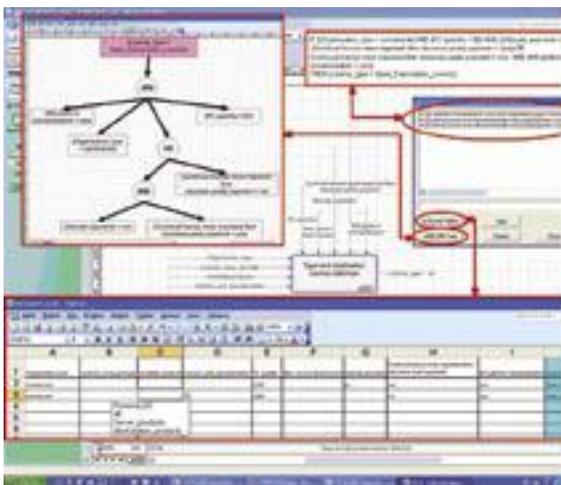
BACKGROUND ON TEAM

FIBRA (Flexible Intelligent Business-process Restructuring Analyser) is a combination of advanced artificial intelligence methods and modern techniques in business modeling, based on widely spread Microsoft Office products. It dissolves boundaries of traditional analysis techniques and business process automation, opening this world to virtually any person with advanced MS Office skills, and requiring minimal initial knowledge to start experimenting with business process modeling and simulation. FIBRA provides a full circle of business process modeling and development from a sketch to a working model that can be used in automation and decision support information systems.

FIBRA is based on the proposed extension to SADT/IDEF-O model by introducing formal specification languages for lower-level atomic processes based on knowledge representation methods, such as and/or trees, case-based reasoning and production rules. One notices the similarities between business process execution, which is based on the available data in the current state, and forward-chaining logical inference in expert systems - which suggests that large family of business processes can be described by knowledge representation methods, and makes those methods in particularly suitable for defining the exact semantics of atomic business processes.

FIBRA provides simple natural graphical language to perform structured functional decomposition of respective problem domain for effective application of AI methods and further investigation and verification of business-process models. It is a comprehensive toolkit for business analysis, consolidated with common Microsoft Office platform, allowing to perform all activities inside the organization by entry-level specialists, not appealing to external consultants.

FIBRA unifies many MS Office components - starting with IDEF-O model in Visio, we can incorporate knowledge using Excel tables, visually-constructed and/or trees or production rules, seamlessly switching back and forth between different knowledge



representations. We can then simulate the process execution by filling in InfoPath form with initial data, and our custom-designed inference engine in SML.NET would provide full description of process execution in Word, or process activity breakdown in Project.

For more information, please visit our site <http://fibra.maillabs.ru>



RENDERING

Real time rendering is an **art** as well as a **science**, that calls on students to combine knowledge of **complex mathematical transformations** and more along with the **aesthetic sensibilities** to **create compelling** characters and stories. Teams that can bring these two worlds together **amaze** us with stunning representations of the world around us, **the future, the past, and anything else they can imagine.**

rendering

CHINA



Team Name FRONTFREE STUDIO

School Name Beijing University of Technology

Team Members PU WANG, SHI SHI, YOU XU, CHEN LIANG

BACKGROUND ON TEAM

Our members come from Frontfree Digital Graphics Studio, which was founded in 2003 based on the Frontfree Graphics Group. Since we are developed in the university, we obtain support and help from professors, who have abundant experiences on both computer software and hardware. All the members in the studio are bachelors and master students in Beijing University of Technology. The core members have years of experiences on 2D graphic design, 3D model design, Direct 3D development and many other aspects. Besides, we have excellent cooperation during many past projects. We have grown into a mature develop group.

PROJECT OVERVIEW

In a storeroom of a barn, squirrels from the Stupid and Crazy groups are undergoing an intense battle. Both of them hope to eliminate the other, and stop the battle by some artifices. Hence, the respective Dissolving Border campaigns come up.

The actor, one squirrel in the Stupid group, acknowledges that Crazy Virus, a virus that brings about the variation of the squirrels, is quickly spreading. Therefore he is assigned to open the water controlling valve deep in the Crazy group which is under severely strict guard. This will spread the water to all the Crazy squirrels and clear up the Crazy Virus they carry. The name of the task is: Dissolving Boundary.

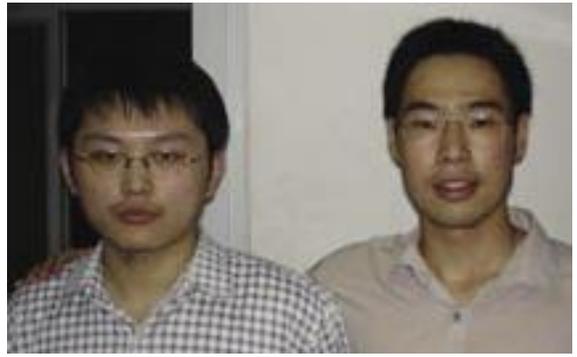
The actor is hit by a pine nut bullet from the enemy and passes out. When he wakes up, he is convinced immediately that the thing that is called Crazy Virus is actually an Evolvement Element, which will make the all squirrels realize their true development. Thereby, the actor receives orders to dive into the Stupid group secretly, stun the rivals and bring them back to carry through the Evolvement Alternation. The alias of the assignment is: Dissolving Boundary.

If the stupid actor completes the Dissolving Boundary campaign from the Stupid group, after this setback, all the Crazy squirrels will become clear-headed again and a new leader will come into being!

If the crazy actor completes the Dissolving Boundary campaign from the Crazy group, all the squirrels in the barn will become Crazy squirrels. This is the evolvement of the whole squirrel race.



CHINA



Team Name NICKYLEMONGXR

School Name Huazhong University of Science & Technology

Team Members LIANG HU, XIAORUI GAN

BACKGROUND ON TEAM

The Team nickylemongxr is from Huazhong University of Science & Technology, China and is currently made of 2 Team members Nicky (Chinese name : Liang Hu) and lemongxr (Chinese name: Xiaorui Gan). Team Nickylemongxr aimed to attend Imagin Cup 2005 Rendering invitational.

Here is the description of the two members:

Nicky: chief programmer, engine designer, and is now a student majoring in computer science and technology from HUST, wuhan, China.

lemongxr: 3D modelling, animation and textures producer. And is now a student majoring in computer science and technology from HUST, wuhan, China.

The team nickylemongxr begins this project at the beginning of March 2005. After 1 month and a half's hard work, we finally made the Demo "The Ant's Adventure".

PROJECT OVERVIEW

The demo "The Ant's Adventure", describes a simple story of an ant's incredible adventure, which brings you the theme of "dissolving boundaries" between virtual and reality. Imagine that current and forthcoming technologies, mostly brought about by computers, would bring man from reality to a place where we would exist as just information, interacting with each other under the terms of virtual rules. So this really is a kind of dissolving of boundaries. We designed to make a scenario that consists of a computer which act as a portal between the real world and virtual space that let the ant travel through one side to the other, and then safely back to reality, which is what this demo is all about.

The Demo makes use of graphics effects such as per-pixel omni-directional lighting with bump mapping, parallax mapping, blurred soft shadows, glow effects, waving grass, water effects, lens flare and depth of field.



rendering

LITHUANIA



Team Name NESNAUSK!

School Name Kaunas University of Technology,
Vytautas Magnus University, Vilnius University

Team Members ARAS PRANCKEVICIUS (Kaunas)
PAULIUS LIEKIS (Kaunas) ANTANAS BALVOCIUS (Kaunas)
RAIMUNDAS JUSKA (Vilnius)

BACKGROUND ON TEAM

'nesnausk!' is a group of enthusiasts interested in game development, real-time computer graphics and demoscene. Our group is dedicated for improving skills and learning new technologies. We create realtime computer graphics demos, participate in and organize various demoscene related events, write small computer games for fun, participate in programming contests etc. The core of 'nesnausk!' group formed about 7 years ago, while most of the members were still in high school.

Our Imagine Cup entry was done by four of us: Aras Pranckevicius, Paulius Liekis, Antanas Balvocius and Raimundas Juska:

- Aras is our main programmer and is generally obsessed with graphics programming; he spends his free time with his wife and daughter.
- Paulius is interested in programming and graphics design; on his free time he is training his personal neural networks to master BMX tricks.
- Antanas brings us high-quality animations and 3D models and he spends most of his time on it; he is also interested in chess, music, movies and swimming.
- Raimundas made music for our Imagine Cup entry. It's his first project with

'nesnausk!' so we don't know him very well :)

PROJECT OVERVIEW

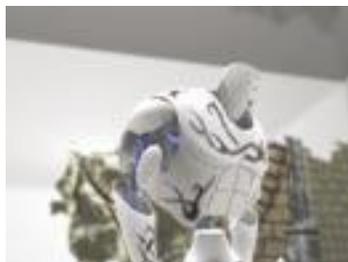
'in.out.side: the shell' is a program that displays 3D computer graphics and plays audio. All rendering is performed in real-time and can be interactive.

'in.out.side: the shell' tells a story about breaking the boundaries between individual person and the outside world. It tells that while our own private "inside" world may be nice and polished, we're still trapped in it. By breaking the shell of our own self we can discover the outside world; the world which may be much more complex, rough and not that nice. However, there we can discover whole new worlds (among them, other persons) and become free.

The message we want to tell is: Be free to discover your self, your time and the world around you. Dissolve the boundaries.

The demo is implemented as both a non-interactive realtime rendered film and an interactive user experience. The non-interactive version shows the whole scenario; however, at any time the user can go to "interactive mode": look around, walk and experiment with breaking the boundaries (the walls) himself.

From the technical side, we use many modern computer graphics techniques, like normal mapping, ambient occlusion, realtime soft shadows, blurry reflections and fullscreen postprocessing effects.







SHORT FILM

The short film invitational asks teams to **share a perspective** on the **boundaries** between us. It all starts with a story and a point of view – two very **elusive** pieces that **challenge** even veteran film makers. Teams first submitted storyboards and concept diagrams to **validate** these two points, and 30 teams were selected to move on to the film creation round. Based on these films, six finalists were selected and their challenge in Japan is to cover the grounds in a **guerilla filmmaking competition**, armed with yet **another story** to tell and **point of view**.

CANADA



Team Name DIGITAL CORSAIRS
School Name The University of Western Ontario
Team Members EVAN AAGAARD (Cambridge, Ontario)
DEREK COMEAU (Moncton, New Brunswick)
NICK HAFFIE-EMSLIE (London, Ontario)
BRYCE HUNTER (London, Ontario)

BACKGROUND ON TEAM

The Digital Corsairs are a group of (mostly) Film Studies students at the University of Western Ontario. The members have made numerous short films in the last few years, in collaboration and separately, including last year's Imagine Cup finalist, "From Everything."

DESCRIPTION OF PROJECT

"The Thought Pulse" is an advertisement from the not-too-distant future advertising a product that can transfer thoughts and memories between users. Josh's feelings for Dana have become something more than they used to be, but he can't find the words to tell her.

WHAT IS YOUR ARTISTIC INSPIRATION?

The idea for the "Thought Pulse" came from an interview that acclaimed sci-fi novelist Arthur C. Clark gave for Popular Science Magazine. In the article the interviewer asked Clark what his predictions were for the near future. Clark replied that he believed humans would soon develop a technology that would allow for direct thought communication (telepathy), the most harmonious language that sentient beings could be capable of.



INDIA



Team Name I & M

School Name Birla Institute of Technology and Science

Team Members ISHAN SHUKLA- PILAN (Rajasthan)
MAYUR KARTHIK - ERODE (Tamil Nadu)

BACKGROUND ON TEAM

Ishan Shukla: I am passionate about making paintings, write stories and novels, do a lot of theatre, write poetry, and love to read. I do a LOT of 3D animation, write scripts, design web sites, do love photography. I have found that it's in filmmaking where I can put ... all my minuscule creativity. Currently I am doing M.Sc from my great institute ... that's giving me a lot, apart from studies too.

Mayur Karthik: I am doing M.Sc in instrumentation from my Institute. I love to make 3d models and animations. Sketching is one of my hobbies that I love. I play almost all games. And from them I like football the most. Football-and-3d anim-and-films is all I am living for.

DESCRIPTION OF PROJECT

The story is about a dream that what if someday we would achieve the miracle of orienting the attitude and propensity of humans to act righteously. As the theory at the starting of film says, a few scientists succeed in adding few chemoemitters in the air and thus changed the air. Due to which the gene structure of the humans got altered. "The Last Renaissance" is about a dream, a dream yet to be realized. As if something happened in the dream last night and someone is just trying to remember it. Now in dreams we don't remember colors..neither the details nor the faces. What is left with our memory is just a heap of mixed visuals with jagged edges. And that's exactly what the film looks like. We kept three things in mind. The characters should 'act' real. The surroundings should 'set' the mood and the film should 'look' like a dream. That's the reason why the characters are real and surroundings are 3d in our film.

WHAT IS YOUR ARTISTIC INSPIRATION?

Ishan: My inspiration is "the portrait.."

Mayur: Mine is all that God has created...the nature. Anything that creates the feeling in me to create something is my inspiration.



MEXICO



Project Name VIA - VERTIGEN TEAM

School Name Universidad de Guadalajara -
Centro Universitario de la Costa

Team Members SANDRA CAROLINA BRIONES PÉREZ (Puerto Vallarta)
JESÚS CUAHUTÉMOC AGUIRRE CUIEL (Puerto Vallarta)
ALEJANDRO EMMANUEL FÉLIX PIMIENTA (Puerto Vallarta)

BACKGROUND ON TEAM

Sandra: Mangaka girl, extremely ecologist and kittens lover. Expert in manga sketching.
Temoc: Knows everything about videogames, but ask him how many games he has (?).
Also loves kittens. Have a collection of mangas and read anything in front of his face.
Alx: Likes to read terror books. Amateur graphic designer. Loves kittens too. Wants to be movies director. Sigur Rós maniac fan. The aspects of our personalities that we share is the passion for multimedia projects, creativity and we don't like to be as the rest of the people (lambs). Oh yeah, all of us love kittens.

DESCRIPTION OF PROJECT

This story is about two individuals whose necessity to communicate. They use the telephone in rudimentary fashion, by which they find to express their ideas, thoughts, emotions and feelings of each other across the world. While they are talking with each other, they feel that the great distance between them gets shorter by each second. Only element that separates them is an imaginary wall. The complete story happens while a background melody is being played ("Untitled # 1", from "(" album by Sigur Rós), which was chosen because of the sentimental value and its lyrics, similar to dialogues in the short film, are hidden so that each individual gets the talk of the characters on his/her own way. In that way each person is free to invent the dialogues and to build the structure to the message that unites both children. The short film is shown black and white in coherence with old fashion way of the story. Use of the telephone is in its initial stage, the video (like the technological element by which we are transmitting our message) also had a beginning and we decided best way to show it making coherent with the story.

WHAT IS YOUR ARTISTIC INSPIRATION?

It was a difficult task to choose the story, which we were going to create for the contest. Everything we were thinking about was computers, chats, videoconferences, and thought-readers. With all the stress of thinking about a good story, a joke came up, it was to show two kids communicating with a telephone made with glasses and a wire. As we were not paying attention to everything we said then, we just continued thinking of more stories. Alex wanted to show a surgery done remotely. Sandra wanted to make a story about destructive things that humans have made with technologies since prehistoric times. And Temoc, well, he just said "whatever" to everything. After burning our brains for hours we thought about the idea with the kids and the glass-telephone, and it didn't look so bad after all. We just had to look for the correct approach to the contest theme. We really never imagine that this joke was going to drive us to the finals. As an anecdote, while shooting the road scenes, a bull made us run because it was stalking us. We almost ruined the house of Sandra's boyfriend (where we made the stage). The wall was full of holes made with a drill, we nailed a lot of pieces of wood, we perforated the wall to make the wire fit in it. The girl didn't want to act in some scenes, so we had to convince her to do it by buying her a special edition candy everyday. The boy made his scenes conditioning us to buy him a Japanese toy, if we make it to the finals. We also saved two cats in serious danger. They now live happily.



POLAND



Team Name SKYLINED
School Name UNIVERSITY OF WARMIA AND MAZURY
Team Members JULIA GÓRNIOWICZ (OLSZTYN)
JACEK BARCIKOWSK (OLSZTYN)

BACKGROUND ON TEAM

We started working together as Skylined about two years ago. Since then we were mainly focused on developing web applications and web design and we've got involved or started many Internet projects like "Nimformatyka" - the portal for students of computer science at our university, or "Animuj.pl" - the first Polish portal dedicated to 2D animation. Our interests come from our computer and artistic education - Jacek is very into computers, Julia is more into art. Thanks to Imagine Cup, we've decided to finally give a chance to our love for 2D animation and tried to create one on our own. We are currently developing the story for our next animated short film that we will begin to draw around October 2005. As a team, we evolve in the 'new media' direction, trying ourselves in the new fields, of course always with computers and new technologies in the background.

DESCRIPTION OF PROJECT

Our short film "Pudeuka" tells a story about the world of boundaries changed by one boy's invention. The film is based on a simple idea of using symbols - we have people dressed in boxes - their boundaries and prejudices, we have the magic button - the symbol of progress and technology, and the boy bounded by his situation, but saved by his knowledge and desire to create. The short film is one and a half minute 2D animation, drawn entirely on a computer.

WHAT IS YOUR ARTISTIC INSPIRATION?

We get our inspiration from everything that surrounds us, but if we work on something, the best thing to get motivated is to talk about the ideas, read books and articles on the subject and watch the creations of other people.



Short Film

TURKEY



Team Name DEU-SHORT FILM

School Name 9 EYLUL UNIVERSITY

Team Members MEHMET FERHAT DEMIREL (KAYSERI)
YASIN KARADAYI (ZONGULDAK)
MEHMET DOGAN YETIK (MANISA)
SINAN DINÇ (RIZE)

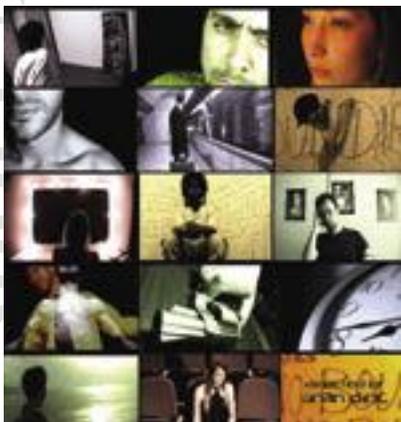
BACKGROUND ON TEAM

Every member of team is a student in 9 Eylul University Computer Engineering Department. None of us has a cinematic education but we are all addicted to cinema. 'Union' is the first film experience for us.

DESCRIPTION OF PROJECT

Everyone is looking for something but none of us knows what we are looking for. We think that when we have lots of money, a great career, a big house and a sport car, we would be so happy. And no one can find where the mistake is? That's why there is always an emptiness inside of us, that's why we always make ourselves bleed by hitting the walls of boundaries that surround us and that's why we can't catch the happiness. Actually we are living in a speed age. Everything passes so fast that we can't find enough time for our family, our friends even for ourselves. We are racing with minute hand and hour hand. Because of that our all relationships are patchy, all of us are separated from each other because of boundaries we create. Whereas we take all the advantages of technology. We can arrange our work with one phone call or one email. We can travel around the world in hours with airplanes. By the internet the world is in our hands. But we still don't have enough time to stop for a moment and think about why we are all alone and unhappy, what are these things that bounded us and isolate us from other people. This is a poetic story of four people that come together in a cyber world where money, beauty, physical disabilities and cultural differences don't create boundaries between them, the story of four different people that have a chance to catch that moment to apprehend these boundaries which they are trapped. These four character's, Mustafa, Alice, Daniel and Omar's lifes symbolize boundaries that we are trapped in our life's. Mustafa is a workaholic that bounded his life for his money and career passion and find himself alone

and unhappy because of this. Alice is a beautiful model, lives in a world where the only important thing about her is her appearance, nothing else more. She is stuck in that beauty ghetto. Daniel handicapped who has to live with a wheelchair, and isolates himself from people because of his physical disability. Omar, our last character, is a young student who has problems with his family and environment because of cultural differences between them.



WHAT IS YOUR ARTISTIC INSPIRATION?

Thousands of movies we watched, thousands of lifes around us, parts of our lifes.

UNITED STATES



Team Name TEAM ZULU
School Name Lansing Community College
Kendall College of Art and Design
Team Members SCOTT LYNCH (Leslie, Michigan)
NICOLE DAVENPORT (Traverse City, Michigan)
JAMIE HANKS (Perry, Michigan)
ANDREW SHIREY (Perry, Michigan)

BACKGROUND ON TEAM

Nicole Davenport is a 23 year old native of Traverse City, MI. She has a B.A. in English from Michigan State University and is currently studying film production at Lansing Community College. Andrew Shirey is studying at Kendall College of Art and Design majoring in Illustration with a minor in Digital Illustration. He enjoys reading comics and books, watching cartoons (both western and eastern variants), watching movies, and listening to various kinds of music. Jamie Hanks is an enthusiastic film student studying at Lansing Community College. She has been involved in theater and the arts since high school, and fell in love with film as an animation student. Scott Lynch is also a student at Lansing Community College, where he splits his time between school and his company. Currently he has been working as a Director of Photography shooting music video's on HD.

DESCRIPTION OF PROJECT

ONE^3 is the story of polar-opposite strangers who forge a human connection through the aid of a mysterious technological device. Bridget, a ten-year-old white female, and Aman, a fifty-year-old man of Indian descent, couldn't be more different. Their worlds collide when Bridget plows through the door of Aman's neatly kept convenience store. Aman catches Bridget stealing merchandise and chases the girls out of the store. The attempted theft is the first of a series of temptations and choices that ultimately launches Bridget into the world of adult-hood as she recognizes that her actions have a direct affect on others, whether positive or negative.

WHAT IS YOUR ARTISTIC INSPIRATION?

Team Zulu's ultimate goal is to combine flawless production technique with solid conceptual ideas. In addition, we are dedicated to providing a new or different perspective on age old conflicts. Since its inception, the filmic medium in the United States has been controlled by white men. As a result, many of the films that receive distribution are about, and written for white men. With ONE^3 we decided to break with this traditional method of storytelling by centering the narrative around a young Caucasian girl and an older Indian-American man. Our next challenge was to portray these 'social groups' without slipping into the use of stereotypes. It is the physical interaction of these two seemingly unlike people, and the metaphorical collision of worlds that makes ONE^3 unique.





SOFTWARE DESIGN

The software design invitational is the **oldest** category in

Imagine Cup, and calls on teams to use .NET and

mobile devices to write software that **dissolves the**

boundaries between us. This year there are **38 teams from**

6 continents at the world finals that advanced through country

and regional competitions. Teams use the **latest in new**

technology to address some of the most age-old

problems we face, and the result is an **interesting glimpse** into

how **the future** may look.

software design

AUSTRIA



Project Name GECCO-GLOBAL EMERGENCY CLINIC
COORDINATION

University Vienna University of Technolgy & Vienna University
of Economics and Business Administration

Team Members ALEXANDER DUGGLEBY (Vienna)
RALPH ZLABINGER (Vienna)

OVERVIEW OF PROJECT

The Gecco system is designed to support patients who require special medical monitoring and their attending doctors, enabling rapid specialized treatment. Patients wearing a Gecco-enabled monitoring device, such as a smartphone connected to a number of medical sensors through Bluetooth, are constantly monitored and in the case of an emergency the device will automatically inform the Gecco System and ensure fast medical support. On receiving such an emergency request, the system will alarm the nearest emergency physician and assign the case, who will automatically receive a map showing him the way to his patient. At the same time the system will contact the attending physician at the patient's home location. Both physicians can now access the current patient data submitted by the patient's device, the patient's medical history and communicate using their own languages (Gecco will translate the messages automatically, enabling foreign physicians to communicate with the local physician without perceiving the language barrier.) To support the treatment, the emergency physician can take photos and submit them to the attending physician allowing him to get a better view of the patient's state.

TECHNICAL OVERVIEW

The central component is the Gecco Servicer. Clients access the Gecco system using Webservices. Each client passes messages to the webservice which forwards them to a message queue. The Gecco Servicer processes each message, using the database and a set of external webservices. The patient's client runs on a Smartphone with the .NET Compact Framework. The medical sensors are simulated and communicate over TCP/IP with the client. The emergency physician's client is a Windows Application connected to a video input device. It displays maps, patient data and allows both physicians to communicate. The attending physician's client runs on a Pocket PC. The slightly bigger display allows the physician to see more data at once, allowing a better diagnosis. All clients require access to the Gecco Services over the Internet. The server infrastructure is based on Windows Server 2003, Message Queues, IIS 6 and SQL Server 2000.

AUSTRALIA



Team Name TEAM DOUG
University Queensland University of Technology
Team Members DOUGLAS STOCKWELL (Brisbane)

OVERVIEW OF PROJECT

What? Colle (pronounced clow-ie) is a new Collaborative Environment for learning Foreign Languages. Colle makes it easy to create and share flash cards, provides automated and intelligent training, and allows for collaboration in distributed and close-proximity environments.

Right now it's wonderful that computers and the Internet can help with language learning by providing access to a wealth of information. But the actual amount and quality of software to aid in training is somewhat less impressive.

Colle aims to provide several key features to aid and enhance language learning on the Tablet PC platform.

Creation and distribution of flash cards. Central storage of information for collaborative editing. Automated testing and training. A collaborative shared surface for teaching, discussion and language exchange. Dictionary searching - Thick client, and Smartphone. This Colle prototype focuses on technology for learners of the Japanese language.

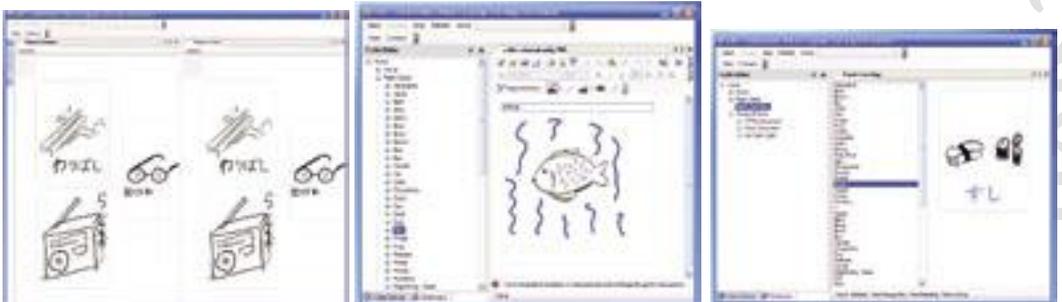
TECHNICAL OVERVIEW

Colle is a Smart-Client - Server application.

At the heart of Colle is WsiWik (A web-service-isy wiki). WsiWik takes the idea of a Wiki or CMS to the next level. Although the web is a great platform and existing Wiki and CMS technology is immensely popular, the capabilities of smart clients are tremendously attractive - thus WsiWik provides access to its content completely via web services. This makes building a smart client/collaborative editor a breeze.

WsiWik is a hierarchal system, pages or entities live within their parents. Entities have identity (a name and number) and type (their schema). WsiWik enties in Colle include InkFlashCards, Html, Word Documents and so on. Each entity is its own web service - generated and accessed through the standard ASMX interfaces. Each entity has state, an XML body. Additional web methods may be bound to an entity type, these can interact with the body, or talk to other entities. Due to the hierarchy an entity can have children, calling an entries "GetChildren" web method enables web service discovery.

The beauty of this system is that the XP Colle application is by no means the only client.



BELGIUM



Project Name BLUECONNECT
University Haute Ecole Rennequin Sualem
Team Members HILDEBRAND STÉPHANE (Province of Liège)
NOIRFALISE JÉRÔME (Province of Liège)

OVERVIEW OF PROJECT

How cool would it be to stay automatically connected with interesting people in general and with your loved ones in special situations just by using the bluetooth technologies of the tools you are already using day-to-day (GSM, Smartphone, PDA, etc)? BlueConnect first and foremost allows you to imagine a world where you get automatically in touch with people who are coming into your boundaries and who share the same passion as yourself. While using the BlueConnect website, people can subscribe to different groups (by keywords like “interests” or “events”) and they will be automatically notified when somebody with the same keyword enters into their Bluetooth environment on for example an event or a party. Notice that it will not only allow you to get in touch with new friends, but will also allow you to get an automatic notification when you are getting closer to one of your loved ones in for example dangerous situations (avalanche). Blueconnect not only indicates to you when somebody enters your boundaries, but also allows you to imagine a world where you get an automatic notification when one of your loved ones leaves your boundaries. So, the application will for example help parents to stay in touch with small toddlers on the beach or will warn you when your pet has gone walking. The new BlueConnect device is the special detecting device we have created to enable bluetooth connection between this weaker group of loved ones and our standard controlling devices (PDA, Smartphone, GSM, etc).

TECHNICAL OVERVIEW

Technologies used for the development of the applications: Microsoft Visual Studio .NET 2003 to program in C# the PocketPC and the smartphone, Microsoft Visual Studio .NET 2005 beta 2 to program the web site (in C#), Microsoft SQL Server 2005 beta 2 for our database, Photoshop from Adobe for computer graphics, Flash from Macromedia to provide animations in the web site. Technologies of the controlling devices: Pocket PCs with Widcomm stack and Smartphones with Microsoft stack. Architecture of the Blueconnect website: Fully multilingual with RESX files (English, Dutch and French currently available), Easy to install (MSI file deploys a cab file into the mobile), Fully configurable using XML files. HardwareComponents of the new detecting device: Breadboard (I/O panel), Flexip lanel Bluetooth + Bluetooth Radio, Basic Stamp (microcontroller), Buzzer, Leds.



BRAZIL



Team Name SOLVENT-SD
University Universidade Federal de Pernambuco
Team Members ANDRE FURTADO (Recife)
GUSTAVO ANDRADE (Recife)
IGOR GATIS(Recife)
LEONARDO SOBRAL (Recife)

OVERVIEW OF PROJECT

Our solution is focused on enhancing the tourist experience. Using a mobile device, tourists can visualize the map of the region being visited, which is updated according to their position. Points of interest (POIs), such as tourist sites, services and products, are displayed on the map. Tourists can request detailed information about a POI, visualize its reviews (registered by other tourists) and interact with its multimedia content, besides searching for POIs using specific criteria. A virtual agent also interacts with the tourist, suggesting exploration paths for a tourist site. Tourist travel diaries can also be maintained online and intuitively: movies, pictures or text can be sent by the mobile application to the tourist's personal blog in a web server. If allowed, the application can automatically create new blog posts, indicating the route that the tourist is taking when traveling, and send to tourists personalized advertisement. Finally, it is possible for one tourist to view the location of another, visualize their profile and send them private messages. It is worth noticing that our application is actually a combination of underlying reusable services, which could also be used to create other types of distributed, mobile and context-aware applications as well.

TECHNICAL OVERVIEW

The core of our solution consists of a service oriented framework, named InContext, aimed at the creation of mobile, distributed, context-aware and customized solutions. This framework increases software developers' potential by offering integrated services, such as location, notification, content, advertisement and blog & post services. In order to illustrate the proposed framework, we have developed a solution focused on enhancing tourists experience when traveling around the world. Some of its features are the visualization of the map of the region being visited, which is updated according to the tourist position; access to detailed information of tourist sites, including interaction with multimedia content and reviews registered by other tourists; a virtual agent which helps tourist site exploration; online and intuitive maintenance of travel diaries and interaction with other tourists, among others. This tourist application validated the InContext framework, since the usage of its building block services provided a seamless development experience.

Software design



CANADA



Project Name EMMA

University University of British Columbia & University of Western Ontario

Team Members NICHOLAI YU (Burnaby, BC)
CINDY SHEN (London, ON)

OVERVIEW OF PROJECT

Emma is a location-aware application that bridges drivers, their GPS systems and the internet. It dissolves boundaries, both physical and technological, that the drivers encounter on the road. Emma allows people to access information such as yellow pages, parking lot availability and traffic flow based on where they are. Drivers can easily obtain this information without leaving their steering wheels. It also makes it extraordinarily easy to exchange information and locations between people. Finding your friends has never been this easy.

TECHNICAL OVERVIEW

Emma is built with the .NET Framework. It consists of a client application and a web service. The client application pulls together an array of technologies. Specifically, it requires a cellphone, GPS, and a laptop/Tablet PC in terms of hardware. On software, it takes advantage of MS Speech and Ink to enable users to better communicate with each other. Emma also takes account of live webcam images and RSS technologies.

CHINA



Team Name FRONTFREE STUDIO-MISG
University Beijing University of Technology
Team Members NIU JIANXIN (Beijing)
LIU XUE (Beijing)
FENG TAO (Beijing)
XIAO XUEYING (Beijing)

OVERVIEW OF PROJECT

Fego is a kind of new generation of internet community based on the .NET framework 2.0. In Fego, you live in a internet virtual world, where you can build your own villas in Fego world and use the Fego Site Engine to create Fego personal website. Furthermore, Fego sites can be managed by a client program which runs on the Pocket PC. The Fego community also contains infinite commercial profits; corporations can not only set up their own complex websites with the Fego Site Engine, but also build their marked buildings, advertisement signs and shops for trading in Fego world. Making use of two advantages which are vivid display of buildings and making websites quickly, we apply Fego World Editor and Fego Site Engine to assure us to speedily develop many sorts of application, like our university buildings information query system, real estate buildings and so on. If we can apply it in the Beijing 2008 Olympic Games, it will make people's life more convenient - the location and information of each gymnasium and more can be made available. Fego make internet life no boundaries.

TECHNICAL OVERVIEW

We built the framework and the core of this project with .NET 2.0, designed the user interface with RIA (Rich Internet Application) concept, which improves user's experience a lot. Moreover, through Web Service, RIA and .NET can exchange data smoothly, dissolving the boundary between different technologies. We did a lot of work in expanding the new function of .NET 2.0, like Web Part, Theme, Master Page, etc. And we have implemented an expansible and powerful dynamic website building engine with high customization ability. During the development with mobile equipment, we connected mobile terminals and remote server with Web Services. And the smart-client design concept helps us to implement the functions of off-line operation and on-line synchronization.

ECUADOR



Project Name INSTANT SCORE
University Pontificia Universidad Católica del Ecuador
Team Members CHRISTIAN HERRERA (Quito)
LEONARDO VÉLEZ (Quito)
MARIO NAVAS (Quito)
BYRON BORJA (Quito)

OVERVIEW OF PROJECT

“A final grade has just been determined for a student, a grade in his most complicated and difficult subject. In fact, it’s the last grade in the semester, that one grade which keeps the student awake all night. In that very moment the student receives a message on his cell phone with the grade and finally he can breathe calmly.”

TECHNICAL OVERVIEW

Users interested in receiving their grades instantly must first register by filling the register form in the portal created for this process; the portal also has the contact option. Then the portal communicates with a web service, which after validating credentials supplied in the portal against Windows Active Directory, inserts the data corresponding to each user in a Database. The second major process involves registering a grade. When the grade is registered on the university Database, a trigger calls an external executable file, this executable encapsulates business logic, and after requesting user information from the registered users database, validates whether it’s possible to send an SMS or just an e-mail, and sends it.

The screenshot displays the 'Instant Score' web application interface. At the top, there is a logo for 'Instant Score' and three language selection options: English (with a US flag), Español (with a Spanish flag), and Français (with a French flag). Below the language options, there is a registration form with the following fields and buttons:

- Username: [Text Input Field]
- Password: [Text Input Field]
- ID Number: [Text Input Field]
- E-mail: [Text Input Field]
- Call Phone Number: [Text Input Field]
- Buttons: 'New User', 'Modify User', 'Delete User', 'Contact Us', and 'Register'.

A large, semi-transparent watermark reading 'software design' is overlaid diagonally across the entire page.

FRANCE



Project Name WIZZME
University Epita / 3IE
Team Members FRANCK TETZLAFF (Paris)
SÉBASTIEN MONTEIL (Paris)
SÉBASTIEN RISS (Paris)
ANTOINE VERET (Paris)

OVERVIEW OF PROJECT

WizzMe is a Meet-Up organization platform. The solution's goal is to bring together individuals who share the same interests. It gives people the possibility to make searches with specific criteria. WizzMe is composed of a generic base and modules. The base provides the common functions to all the modules. A module specifies the operational mode of a type of meeting (sports, culture, dates ...). People can access easily to WizzMe through the new means of communication: * Web Site * Pocket PC * Mediacenter In order to enhance socio cultural exchanges, WizzMe provides a lot of meeting channels. WizzMe is a Meet-Up catalyst. In order to accelerate meeting organization, WizzMe selects the location of the meeting. Users can visualize the route with a geographical map, to go to the selected place.



GERMANY



Project Name SMARTRUNNER
University University of Leipzig / FH Merseburg
Team Members ROLF KLUGE (Leipzig), ROMAN BELTER (Leipzig),
KATRIN LETZ (Leipzig), DANIELA MALEK (Leipzig)

OVERVIEW OF PROJECT

Up to now, it was only possible to be informed about speed and covered distance of a workout session at a fitness studio or using an exercise machine at home. But what about jogging in unobstructed nature? Any guidance is missing. What distance did I cover? How many kilometres did I run? What was my speed? How is my training condition and how did it change during the last month? Without such information you lose momentum, because you are not able to meter, evaluate, and compare your athletic success. Should we do sports in stuffy rooms only? - Not with us! We developed a software which makes it possible to do sports everywhere and anytime - in unobstructed nature - while being informed about specific measured values of the workout session, like: - duration of the workout session - covered distance in kilometres - current speed - average speed - estimated calorie consumption - graph of the covered distance The project SmartRunner revolutionizes hobbyist sports and enables every walker, jogger, hiker, roller-skater, biker - in unobstructed nature - to meter, to evaluate and to compare their workout sessions. From now on the potential of every athlete is our passion.

TECHNICAL OVERVIEW

Prerequisites for receiving and processing the data gained from athlete's movement are a GPS receiver, a mobile device and a software. SmartRunner consists of client application, web application and web services. The client application is executed on a mobile device and receives contemporary and current GPS information from the GPS mouse. Based on this data the application determines specific measured values during a workout. After the session the solution offers two ways for reviewing. On the one hand a reporting component on the smart device and on the other hand a more detailed reporting view accessible over the SmartRunner website. Furthermore the application provides a weather forecast, giving information about weather and its short and medium term development in the actual training area. This overall system uses the latest Microsoft technologies: .NET Compact Framework, ASP.NET 2.0, Windows® operating systems as well as Microsoft® SQL Server as the database backend.



GREECE



Project Name SIGN2TALK
University Aristotle University of Thessaloniki (AUTH)
Team Members ANASTASTIOS VALSAMIDIS(Thessaloniki)
FANI TZIMA (Thessaloniki)
VASILIKI KOSMIDOU (Thessaloniki)
AIKATERINI DIKAIYOU (Thessaloniki)

OVERVIEW OF PROJECT

Sign2Talk is a system aimed at providing a solution to the communication difficulties of people with hearing loss. In particular, it focuses on translating American Sign Language (ASL) into speech and vice-versa, to formulate an integrated solution that would efficiently facilitate deaf or hearing impaired people's every-day communication. In particular, our system: 1. uses a wireless, custom made device (armband) to acquire data related to the arm and hand movement (Surface Electromyogram-sEMG signals and spatial information-SI) in order to recognize ASL gestures; 2. translates ASL gestures into American English text and speech; 3. translates speech into animated ASL gestures and/or text; 4. personalizes to the user's specific way of signing through self-training procedures; 5. improves Quality of Service automatically, based on statistical analysis of system use, and 6. provides extensive user support through dynamic vocabulary updates via Web Services. Sign2Talk can have a great social impact worldwide and significant "added value", since it turns a set of devices (e.g. PDA, Bluetooth, electrodes, etc) into a useful tool. It provides the bed-set not only for productive exploration of the team abilities to address such a problem, but also to understand and integrate the needs of the hearing-impaired community, in a joint at-tempt to dissolve their social boundaries.

TECHNICAL OVERVIEW

Sign2Talk is physically divided into three discrete, yet closely coupled, modules, i.e., the Sign2Talk Armband, the Sign2Talk Pocket PC Application and the Sign2Talk Server. The Sign2Talk Armband is a custom made device used to acquire the essential data for ASL gesture identification (sEMG, SI). The acquired data are initially conditioned and then sent to the PDA via Bluetooth link. The Pocket PC Application is the system control unit. During the Sign2Talk operation, it receives gesture data from the armband, analyzes them, recognizes the performed gestures - using Hidden Markov Models - and outputs speech. Accordingly, in the Talk2Sign operation, recognizes speech, processes it and outputs text and video ASL gestures. The system also offers the option of downloading new words from the Sign2Talk Server or filing requests for additional ones. The server consists of: (a)an IIS 5.0 Web Server, hosting Web Services for data exchange between the server and the Pocket PC Application, and (b) an MS SQL Server 2000 database, containing a dynamically updated vocabulary and user identification data. Vocabulary data include all available words, their synonyms, model parameters used for gesture identification and syntactic features needed for content analysis.



HONG KONG



Team Name INTERACTION

Project Name ICKnowledge -Interactive and Collaborative
Wireless Suite for Knowledge Delivery

University Hong Kong University

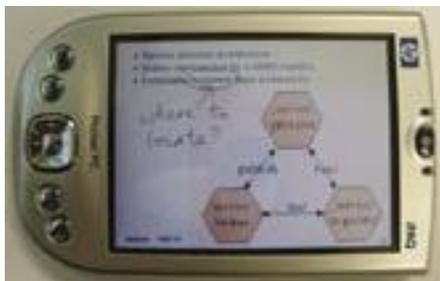
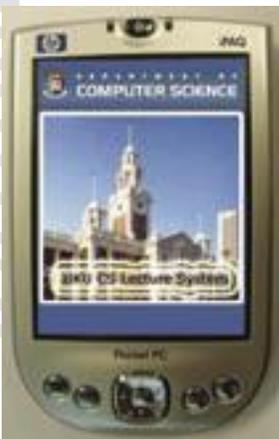
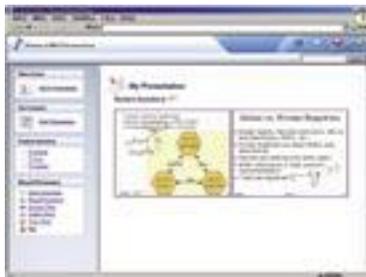
Team Members YU, YAN (Hong Kong)
WING, WAI KWONG (Hong Kong)

OVERVIEW OF PROJECT

icKnowledge is an “Interactive and Collaborative wireless suite for Knowledge delivery”. It integrates mobile technologies into teaching and learning processes where students learn with their teacher. Students bring to the classroom their PDA which displays relevant presentation slides for them to annotate using a stylus or a keyboard. Students are also encouraged to ask questions freely and effectively in the class.

With icKnowledge, students write down their questions directly on the slide and wirelessly transmit them to the teacher using their PDA. Students could ask questions containing symbols or formulas which are difficult to ask verbally. In addition, the teacher can instantly go to any slide that a student is referring to, regardless of the progress of the lecture. Consolidated questions are presented to the teacher in a tablet PC and in turn may be projected for discussion or archived for later follow-up. Other students get involved by retrieving those questions into their PDA.

Therefore, students sitting at the back of the lecture room have no disadvantage to other classmates, and the teacher can manage and respond to students with greater ease. icKnowledge breaks the barrier between students and their teachers, as well as among the students themselves, by facilitating two-way interaction and collaboration in class.



INDIA



Project Name "CITYPULSE" BY THE BAG OF CONSULTANTS
University MES College of Engineering, University of Pune
Team Members GAURANG SINHA (Pune), SAURABH JAIN (Pune)

OVERVIEW OF PROJECT

Our solution is a traffic management system which helps in regulating traffic, by finding out the least congested routes to your destination and channeling traffic through these routes. The system can also be used for Emergency services, such as calling an ambulance from the nearest hospital in case of an accident. Traffic signals can also be dynamically controlled depending on the traffic conditions using our system. Whenever a user selects a source and destination of a route, the 'fastest' (and not the shortest) route is presented to the user, with the approximate time of travel required. Other services that we are providing are:

- Allow tourists to plan site seeing trips in the most efficient manner possible .. i.e. by charting out the closest route from one site to another.
- Users without laptops / PDAs can ask for directions via SMS.
- Users get notifications (via SMS) of bus arrivals at bus stops minutes before the bus actually arrives - so no more unnecessary waiting at bus stops.
- Ability to plan out a trip in advance and get an auto notification in the event that there is blockage on the route selected. The user is also provided with an alternate route and the new time of travel.

TECHNICAL OVERVIEW

We assume the system to be installed on each vehicle in a particular city. A GPS receiver is connected to a PDA / Laptop / Embedded Device which tracks the position of the vehicle which it is on. This information, along with the speed and direction of the vehicle is sent to a centralized server via the internet or SMS or RFID (in scenarios where internet is not available). The server sorts out this information from a queue and updates its database containing the various roads and their corresponding weights. The weights of the roads are calculated using their lengths and the number of cars on the road along with the average speed of the cars. These weights are then used by the clients installed in vehicles to calculate the 'fastest' path between different locations. In the event of an accident, the server gets a notification about the car and the position where the accident has taken place. It uses this information and finds out the closest



hospital to the accident site. It then automatically sends a request to the hospital to dispatch an ambulance to the accident site, along with the 'fastest' route which the ambulance can take to get to the location. If all the ambulances in the hospital are busy and cannot respond to the request, the server then finds the next closest hospital and repeats the above process.



INDONESIA



Project Name EMBRACE (WITH COMPASSION)
Team Name HEAL THE WORLD
University STT Telkom University
Team Members UMAR ALI AHMAD (Bandung)
HENDY IRAWAN (Bandung)
GEDE HENDRA SAPUTRA (Bandung)
M. YUDHA FEBRIANTA (Bandung)

OVERVIEW OF PROJECT

Embrace communicates emotional expression between people using video clips. Embrace dissolves boundaries between people by expanding the potential reach of technology to people who lack resources to use technology, are physically or mentally disabled, or maybe are victims of a disaster. Embrace is not a standalone application, it is integrated within another system (Adopter) through the Embrace XML Web Services API, although it has client applications for performing typical tasks. Embrace also has an Extension API to facilitate interoperability with external systems and services. Embrace uses XML Web Services, ASP.NET, .NET Framework, .NET Compact Framework, .NET Remoting, and Windows Media technologies

TECHNICAL OVERVIEW

Summary of Application Components : Note: These are only the components of Embrace. An Adopter (such as Compassion) may include more components, they are not listed here for clarity and brevity.

1. Application Server. Exposes an XML Web Services API for all other Embrace components and the Adopter.
2. Video Server. Serves video clips in Microsoft Windows Media (WMV) format.
3. Database Server. Stores and manages data using Microsoft SQL Server 2005.
4. Administrative Client Application. A .NET Windows Forms smart client application that connects to the Application Server to administer the system.
5. Mobile Client Application. A .NET Compact Framework smart device client application that connects to the Application Server to submit video clips

ITALY



Project Name TELLME
University University of Udine
Team Members GIANLUCA DEMARTINI (Savogna d'Isonzo)
FABIO BUTTUSSI(San Giovanni al Natisone)
ELISABETTA DE MARIA (Udine)
DANIELE NADALUTTI (Premariacco)

OVERVIEW OF PROJECT

TellMe is a smart Pocket PC application designed to help deaf people to communicate to other people that may not know sign language. In fact, this innovative application listens to people's voice, translates it into sign language and then shows a virtual 3D humanoid who makes the respective signs. TellMe is composed by 2 fundamental parts: MyVoice and MyHearing. My voice synthesizes the sentences the user wants to tell. MyHearing shows the signs to the users. TellMe eliminates the boundaries between deaf people and other people. By using this application, communication between deaf people and other people becomes easier. So the boundaries between deaf people and the rest of the world are immediately dissolved. A user scenario: Bill, a deaf person, goes out to attend a conference. He is late. The room is full. He has to sit at the back of the room. The speaker is far from Bill and he can't see her lips. Bill first takes his Pocket PC and turns it on. Now he is ready to attend the conference without any other help. The software takes in input the voice stream of the speaker and automatically translates it in a set of gestures.

TECHNICAL OVERVIEW

TellMe uses the most recent technologies in the fields of 3D, mobile devices and web servers, such as Microsoft .Net Compact Framework 2.0 (Beta), X3D, H-Anim 200x humanoids, OpenGL ES 1.1, Microsoft Speech Application Software Development Kit 1.1 and Microsoft SQL Server 2005 both in the Developer and the Mobile Edition. It uses a TTS (text to speech) engine for MyVoice and a SR (speech recognition) engine for MyHearing. In MyHearing, the input voice stream is first translated into text by the SR engine and then this text is translated into sign language. All the gestures used for the sign language animations are stored in a mobile DB, which can automatically be upgraded through a web-service. Appropriately composing these gestures, we can have an X3D file containing an animation of a complete sentence which will be performed by our humanoid. This animation is rendered by a module that can show an X3D file using Open GL ES.



JAMAICA



Project Name FUSION
University Northern Caribbean University
Team Members ROMAINE CARTER
(Mandeville, Manchester, Jamaica W.I.)
CLEON GREEN
(Mandeville, Manchester, Jamaica W.I.)
GEORGE LONG
(Old Road Village, St. Mary, Antigua & Barbuda)
KERON TOOMA
(Mandeville, Manchester, Jamaica W.I.)

OVERVIEW OF PROJECT

Fusion is a global communication system designed to transcend boundaries such as culture, language, disabilities and distance among others, to bring individuals together and enhance their potential. The system facilitates users who wish to easily keep in contact with friends and family across borders, as well as interaction between persons of different backgrounds and culture. Fusion will also facilitate communication between persons who speak different languages. This will help to foster interpersonal relationships as well as business transactions where language differences would have been a barrier. Additionally, with Fusion, tourists and business travelers may download to their mobile device cultural and etiquette information ahead of their visit. This allows them to be knowledgeable of the traditions, customs, and dos and don'ts of the country or region they are visiting. Moreover, voice command features are included to assist the visually impaired to utilize available functions audibly.

TECHNICAL OVERVIEW

Fusion is a global communication system designed on the .NET platform. Its purpose is to transcend boundaries such as culture, language, disabilities and distance among others, to bring individuals together and enhance their potential. A number of Microsoft development tools and software development kits were employed to create this system. XML Web services are used in various modules to exchange data throughout the system. Data is primarily stored in a SQL Server 2000 database; however protocols and other user specific data are stored locally in XML files. The system also works through the Internet and interacts with mobile devices such as Pocket PCs and cell phones.

JAPAN



Project Name GEONOTE
University Osaka University and University of California, Irvine
Team Members KOTARO NAKAYAMA (Osaka)
TAKUYA MAEKAWA (Osaka)
HIROKAZU TOMIYASU (Osaka)
ROSE ROBERTS (Los Angeles, USA)

OVERVIEW OF PROJECT

GeoNote is a Social Network system that allows users to share geographic information among their friends. The purpose of our project is to bridge three boundaries; the boundary between people, geographic boundaries, and the boundary of time. By automatically creating a Social Network using MSN Messenger contact list, it is much easier to create a friendship network than was possible with previous SNS. This solves the "Invitation System" problem that exists with most Social Network System, and is successful at removing the boundary between users. Through the sharing of geographic information between friends, geographical information can be shared even if both parties are not physically near each other, allowing the removal of geographic boundaries. The shared information can then be linked to the a Weblog, allowing not only the boundaries between people and place to be removed, but also for the boundary of communication through time to be crossed, through the recording of geographical log data and allowing people to search old log information when needed. In addition we have created the "Virtual Viewer," an innovative feature in GeoNote that helps users find out and leverage shared geographic information on a mobile device with GPS.

TECHNICAL OVERVIEW

There are several innovative features in this system. Virtual Viewer, one of the features in GeoNote, integrates virtual and real geographic information. Through the camera view of a PC or cell phone, virtual information from friends can be viewed. Thus friends can leave each other note that can be found in real-time, almost as if they had placed a sign at that place. We can offer high quality navigation through the use of sensors for global positioning, examining acceleration, and recognizing rotation. The Virtual Viewer allows the user to understand map information naturally, by seeing mark information from their viewpoint. Another special feature of the system is GeoNote Maps, which is a web based map viewer. Through the use of Ajax (Asynchronous XML communication by using DHTML) users can scroll around our map in their Web browser to search for geographical information, or to leave marks for their friends.



KOREA



Project Name EN#
University Sejong University
Team Members NAM SIK KIM (Seoul), BYUNG KI LEE (Seoul),
JUNG CHUL LEE (Gyeonggi-do),
JAE KYUNG KWAK (Gyeonggi-do)

OVERVIEW OF PROJECT

Have you ever dreamed of making an appointment by software?

Arranging an appointment and setting up a meeting with people isn't an easy thing. Above all, it is quite troublesome work to contact with each person. In addition, looking for a suitable place and reserving seats for the right time, and reporting the result to people produce more work. Also if anything goes wrong you get the blame.

Just input an attendant and time into the scheduler and then it's all set?

Smart Planner is a revolutionary software that helps a person to find suitable space, and to arrange a reservation. It informs all parties of where and what time to meet, how to find the place, what the weather is like on that day, who is going to attend the meeting, and whereabouts the person is.

Arranging an appointment isn't bothersome and hard work anymore!
It would be a piece of cake from now on!

TECHNICAL OVERVIEW

Smart Planner uses Xml as a pathway to link all the systems and to provide best service to users.

Also Smart Planner includes MapPointWS, WeatherWS, ExchangeWS and combines those with planner function. In addition, Smart Planner uses powerful mailing functions of ExchangeServer which has Xml type semi-data formation. That would help people to send and share information.

Each system has been linked together and makes an organized functional structure.



LEBANON



Project Name WINK
University American University College of Science & Technology
Team Members ALBERT FARHAT (Beirut)
CHRISTEL GHAWY (Beirut)

OVERVIEW OF PROJECT

As the Lebanese culture still somewhat adheres to traditional standpoints, especially when it comes to dating, our tool uniquely offers easy access for those who are wishing to meet new people, and communicate with them, wherever they are! WINK is a matchmaking application as well as a chat application which is targeted for the Pocket PC Operating System. WINK uses Bluetooth and Web-service to achieve its goal, which is communication among people. The matchmaking profiles, and the ability for use and search using the i-mates allows this program to be significant for a large chunk of i-mate owners, for their everyday use, wherever they may encounter other people. Application Definition: WINK can operate via Bluetooth and the internet. While not connected to the internet, the user can find and communicate with people having WINK using Bluetooth. The user can add, remove, or block a contact, and upon connection, these changes will be stored on the server, and can be retrieved in case any information is lost. WINK will register a user upon connection to the internet. The registration will provide the user with several services: - Sending online and offline messages with other registered users; - Receiving upon registration a unique number, used to: a- change the password; b- send messages through the web-service; c- retrieve the information in case of change of hardware or loss of WINK from the i-mate; d- Check offline messages.

TECHNICAL OVERVIEW

The application is divided into four parts: the database, the web-service, the client application WINK, and the website. - The database used is MSSQL Server - The web-service is the mediator between the client application and the database. The client application sends the request to the web-service and the web-service executes this request and sends it back to the client application. - The website accesses the database directly and performs the appropriate queries. - The client applications communicate with each other through Bluetooth using a WINK protocol and handshakes. The mobile Bluetooth software industry is at its beginning, especially when there are several versions of Bluetooth stacks. This is going to change swiftly and we must be ahead of that change, just as Bill Gates was when he correctly predicted the increasing price of information. Similarly, we can progress, and develop the Bluetooth technology to take it into its inevitable eminent future. Our future work will include: WINK automatic update, online games, compatibility with other PDAs, part of the Pocket PC OS, plug-ins, among other features.

MALAYSIA



Project Name EVOLVE
University Multimedia University
Team Members SAW KEE LENG (Kelantan)
OOI WEN FONG (Penang)
TAN BOON SIANG (Penang)
CHUAH SHANG JUN (Penang)

OVERVIEW OF PROJECT

Traditional boundaries exist between humans in four major ways. The social boundary includes differences in culture, race and religion; the boundary of distance separates us physically; the boundary of physical ability prevents the sick and disabled from fully utilizing existing services; and the boundary of information widens the gap of understanding between us. Fortunately, these boundaries can be dissolved through effective means of communication, and our solution aims to bridge the communication barrier through selective labeling identification using RFID tags. What this means is that points of interest are labeled using RFID tags, and users are able to identify the actual properties through RFID reader equipped PDAs. The PDAs identify the tags, which then accesses third party web service providers that disseminate the required information. When you can have instant information about anything around you, the possibilities are limited only by one's imagination.

TECHNICAL OVERVIEW

Summary of Application Components: • Smart Client Application - A PDA application that sends the RFID identifier to Web Services to retrieve the information from the server. The PDA is connected to the RFID Reader that scans the RFID tag. • Database Server - Keeps all the RFID information. • Web Service - As a middleware that aggregates 3rd party web services and the connectivity to the Database Server • 3rd Party Web Service - As a supporting web services to our application which provides additional RFID information.



MEXICO



Project Name MLC: SOLUTIONS FOR NATIVE COMMUNITIES
University CETYS Universidad
Team Members CAROL IVETT CAMACHO ESTRADA (Tijuana)
EMMANUEL RUELAS ALFARO (Tijuana)
JESÚS JÁQUEZ RUEDA (Tijuana)
TOMÁS TSUNAMI IMAIZUMI BARBA (Tijuana)

OVERVIEW OF PROJECT

Aware that globalization is now part of everyday life and that technology is constantly building bridges between isolated communities, we attempt to connect the population who doesn't speak the official language, and therefore are often uninformed, with the rest of the nation. We are proud of our country's rich cultural legacy; unfortunately, history has neglected those communities that enrich our culture. MultiLingual Chat (MLC) is designed to change this situation. MLC is an expert system design to provide online information, as well as educational and health services, to native Mexican communities in their mother tongue (náhuatl). Our portal facilitates trustworthy information exchange, communication and electronic transactions as well as translations between participants; aiming to empower marginalized communities and to better their lives. We believe that translation and cultural validation is more than a service, it will provide our natives with additional resources to fulfill their basic needs, thus, transforming the futures and hopes of an entire generation. MLC bridges the linguistic and cultural gap between two worlds, enables individuals and organizations to interact with each other and brings people and societies closer together. MLC dissolves the boundaries that forbid our country, as well as any other, to live as one.

TECHNICAL OVERVIEW

MLC is a system based on a web page that can be accessed by a mobile device (pocket pc or smart phone). The web application communicates with web service which has an expert system; the expert system is capable of solving some problems to native Mexicans who don't speak Spanish, the official language of Mexico. The web page is based on ASP .Net technologies, using C# and Frameworks version 1.1; the web service's source code is also C#, and interfaces the expert system. The expert system is design to help native Mexicans that do not speak Spanish in different types of scenarios, e. g. help to find their local health institute, or find the nearest school that teaches their native language.

MOROCCO



Project Name MEET
MUTUAL EXCHANGE ENVIRONMENT POUR TOUS

University Al Akhawayn University in Ifrane (AUI)

Team Members BADR MOLATO (Rabat)
HOUSSAM HAITOF (Kenitra),
KHALIL HONSALI (Rabat), YASSINE KACEMI (Rabat)

OVERVIEW OF PROJECT

“MEET” is an application that creates a Virtual Community where people meet and express themselves. Meet offers services and a transparent framework that can dissolve different levels of boundaries between users. It integrates a wide range of technologies and provides a virtual space where users can meet to exchange their ideas. While communicating with each other, MEET provides live translation of all the discussions based on the user profile and his/her preferences for dissolving language boundaries; as well as Text-to-Speech and Speech-to-Text functions for dissolving boundaries of disabled people. It also provides a database of Meta Information on culture-specific terms and expressions that is fed by the users themselves to dissolve cultural boundaries. When discovering new people, MEET provides feature options to look for a specific profile, and proposes profiles to the user based on his/her own profile and behavior. MEET also provides utilities to cross physical and location boundaries permitting people to locate each other easily whenever it is appropriate. MEET provides many other features and integrates a number of services to create this Intelligent Application and the MEET virtual community.

TECHNICAL OVERVIEW

MEET is a light application that uses the power of web services to render the Pocket PC into an integrated mobile application characterized by the following modules: -Blog: Post your ideas, opinions, definitions, services...etc -Chat: communicate with others from all around the world, with seamless word translation and culture explanation. -Meet: find the person that meets your criteria or just stand by and be advised of the right match for you. -Locate: find you friends, potential collaborators, service providers wherever and whenever they are. -Search: search the web, cultural encyclopaedia, services, people...etc -Bookmark: bookmark or blog your discoveries right away, so that everyday findings are never lost. -Open requests: send a request to the community to get more information about language and culture. -Profile & services: define your profile, and post your services here; people will look for you to chat and collaborate.

PHILIPPINES



Project Name VULCAN
University University of the Philippines
Team Members KRISTINA JANE BAYLON
JON ERIC CANTOS,
RHEA THERESE LUCAS
SARAH KRISTIN ROXAS

OVERVIEW OF PROJECT

What Vulcan does is to forge links between people. With this capability, it seeks to show that everyone in this world is connected somehow, in some way. No one is isolated. And though each person is unique, he is undeniably similar to any other. Vulcan's core feature is his elegant and efficient Forge or Connecting Function. Searching through different parameters like location, bloodline, and industrial orientation, it tries to connect one person to another by forming a chain of people who share these things in common. But Vulcan's applications do not stop there. The same engine and structure, with very little customization, could be applied to other fields like Medical Science, Interest- or Field-Based Searches, Statistics and Polls, Formation of Mediator Networks, and Business Connections. With a little more tweaking, the algorithms and features could be used as foundations of another. The applications are limited only by one's imagination.



PORTUGAL



Team Name SPORT MENTATS

University Faculdade de Ciências e Tecnologia da Universidade Nova de Lisboa

Team Members DANIEL CACHAPA VIEIRA (Lisbon)
RUI RODRIGUES MILAGAIA (Lisbon)

OVERVIEW OF PROJECT

Most people who start exercising are discouraged by the lack of information, by injuries caused by incorrect technique, and most of the time because they can't see any results. Intuitively understandable, the Personal Digital Trainer is an easy to use tool that guides you throughout an exercise session. As an internet based tool you can manage your User account through your browser and get an online view of your training sequence and status. To start training outdoors all you have to do is install the Personal Digital Trainer in your PDA with a wireless connection to the web and you are ready to pump it up. The training sequences are made by a professional trainer to ensure that your exercise experience will be safe, effective and complete. This software allows you to get an insightful view of your progress since when you began training using the PDT system. Whether you're an old miner, a young astronaut or a successful businesswoman, this system will fit in your life to meet your exercising needs.

TECHNICAL OVERVIEW

The Personal Digital Trainer system is based on a number of different technologies working together for the user's benefit: - Pocket PC: The main application runs on a PDA and relies on a wireless network connection in order to access a remote Web Service to provide the user with information regarding his exercise or physical status. - Web Application: An internet-accessible service running on Microsoft IIS server software that allows administrators, trainers and users access to their specific areas online. - Web Service: Also running on Microsoft IIS server software, the Web Service is the interface that links both the Web Application and Pocket PC software to the database. - Database: Is made available through Microsoft SQL Server software and is accessed directly only by the Web Service.



RUSSIA



Project Name OMNIMUSIC

University Moscow Institute of Physics and Technology and Lomonosov Moscow State University

Team Members STANISLAV VONOG (Konotop, Ukraine)
NIKOLAY SURIN (Volgograd), ALEXANDER POPOV (Moscow), RUSLAN GILFANOV (Kazan)

OVERVIEW OF PROJECT

Imagine composers from different countries improvising and creating music together, taking inspirations from one another. Imagine a young child learning how to play the violin from the world's greatest virtuoso. Imagine young people finding each other in distant places over the Internet, starting their own band, and eventually becoming rock stars.

omniMusic is a community-oriented environment for distributed live musical performances. It blurs the geographical, cultural and emotional boundaries between people and unites them in the moments of creating and experiencing pieces of musical art.

Imagine... You plug your electric guitar (or any other instrument) into your computer and in a few seconds your friends begin to appear in your virtual studio to play with you. No matter how far you are from each other. You see the video pictures of all the members of your band, you can talk with each other, and you can actually play together with high quality sound and no latencies. You can choose the audio environment model for your virtual studio and tweak digital effects for each instrument. Finally, you are ready to organize your first digital concert. A lot of spectators across the entire Internet can see you. And of course the concert is automatically recorded and saved for your family and friends for ages.

TECHNICAL OVERVIEW

There are many conferencing solutions available, yet none of them give either sufficient sound quality or real-time interaction necessary for musical performances. omniMusic commits to deliver high quality sound and ultra-low latency (<50ms). omniMusic is a service-oriented architecture solution which is designed to work in broadband operators' networks. We have built a range of web services that support omniMusic smart clients. For real-time audio and video transmission the smart clients use peer-to-peer approach and take advantage of multicast technology.

In order to make sure that the latency does not exceed 50 ms we implemented:

- Fast audio capturing from hardware devices with ASIO drivers
- Fast audio rendering to network with our self-developed kernel-mode driver using Kernel Streaming technology
- Fast audio compression with our self developed codec



- Fast audio transmission with Real Time Transfer Protocol. We built our network stack on top of MSR Conference platform RTP implementation (available with source code under MSR-SSLA license from <http://www.conferencexp.net>)

omniMusic is written in Visual C# .NET with Visual Studio .NET 2003 for .NET Framework 1.1. Other technologies include MSR ConferenceXP, Windows DDK, ASIO, COM, Visual C++, DirectShow, ASP .NET, XML Web Services, ADO .NET, SQL Server 2000, Tablet PC SDK, .NET Compact Framework, VRML.

SAUDI ARABIA



Team Name THE ARCHITECTS

University King Fahd University Of Petroleum & Minerals

Team Members WAEL KABLI (Riyadh)

SALMAN AL-ANSARI (Madinah)

OVERVIEW OF PROJECT

IPM- Intelligent Patient Monitor is a software solution that enhances patients' life. Patients can monitor and keep track of their medical status through easy mobile software or a normal windows application. They will be able to assess their medication process by having this software controlling their medicine doses, sports and other medical activities. It will contact the appropriate person if an urgent situation occur and reminds both the patient and his supervisor (if any) about different status that the patient goes through. Users can also monitor other patients' medical process as well as their own. Moreover, children's periodic injections alerts are supported along with good multilingual interfaces that ease the human interaction with the whole system. This will help tremendously people who travel frequently, leaving behind sick children or ill parents. By using IPM from anywhere and via smart devices, the geographical boundaries will be dissolved. Moreover, since IPM is multi language, so this will dissolve the boundaries of natural languages (Arabic and English) and it may be extended to include more than these languages.

TECHNICAL OVERVIEW

IPM is a client server application that uses web services as its underlying protocol along with the .Net framework as its underlying technology. IPM was designed to enhance the concept of Rule Based Engine, which has very useful applications in intelligent supervision. IPM has three main parts. One part enables patients to monitor their medical activities such as medical doses and special diseases like Diabetes; IPM considers Diabetes as an example but the program can be extended to include many diseases. Another part is to monitor the main injections of the children from the date of his/her birth up to age of about 4 years. The last part is for monitoring other patients' status - for example to remotely monitor the medical status of your child. IPM uses messages to accomplish this monitoring, by informing (for example) the parents via messages about the medical status of their children. Hence, it is not necessary to be logged in at the time of arrival of the messages. IPM is designed to function for two languages (Arabic/English) and using different devices including Pocket PC and PCs. This Multilanguage interfaces will allow doctors to monitor their patients effectively.



SERBIA & MONTENEGRO



Team Name THE INSOMNIACS
University University of Belgrade
Team Members MILOŠ BLAGOJEVIC (Mladenovac)
KOSTANDIN DIMITRIJEVIC (Požarevac)

OVERVIEW OF PROJECT

The idea behind the “Just A Drop Away” system is to raise social awareness by providing a means to form a community of voluntary blood donors that live or work in the same neighborhood. They are equipped with the Smart Device applications that would allow them to help people that need blood quickly. High responsiveness is ensured by contacting people in cases when somebody from their surroundings is injured and at the same time the chance of the injured people recovering is increased. The project was also designed to let people report the accident, and, by doing so, increase the possibility of quickly locating accident victims. This would all be conducted in the language users understand, overcoming the possible cultural barriers. Another part of the system is for the medical teams and is used for directing the teams to the accident site as well as collecting multimedia data (audio, images) from the site in order to shorten the time needed to prepare the medical stuff and operation rooms. The most important feature of this part of the system is the ability to automatically start the process of collecting required quantity of blood from the members of our voluntary blood donor communities.

TECHNICAL OVERVIEW

Just a Drop Away is a large-scale, real-time, robust, distributed, easily enhanced, scalable, self-maintainable, auto-updatable, multi-medial, multi-lingual, geographical information system that is able to address all the problems that occur during any part of the emergency handling life cycle, from the moment the accident occurs until the moment the injured people arrive to the hospital, in order to minimize the consequences of an accident. Hopefully, the use of our system can permanently reduce the number of fatal outcomes for wide variety of accident types on a very large territory (one or even more states) by bringing together people that need help and the people that have enough good will and desire to provide it. It is n-tier and 3-layered system with a peer to peer network topology based on a synergism between “Gnutella” and “Nepster” peer communication models.

SINGAPORE



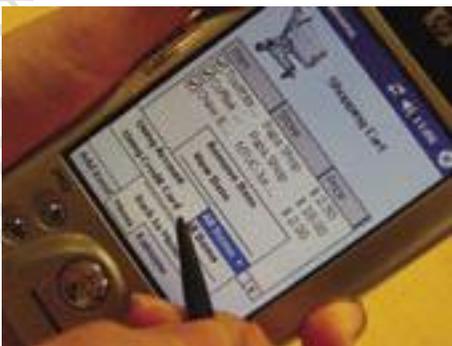
Project Name ENVISAGE
University Nanyang Technological University
Team Members JUSTIN KOH (Singapore)
VINCENT ONG (Singapore)
ANGELA TAN (Singapore)
DOROTHY TAN (Singapore)

OVERVIEW OF PROJECT

KAIMONO is the Revolutionary Shopping Experience. The system is a hybrid model, combining the advantages of both conventional and online shopping.

KAIMONO enables consumers to shop anywhere, anytime with their mobile devices, such as their mobile phones. The feature-rich system allows consumers to access product information, do price comparisons and share reviews. It is all about empowering the consumer with perfect knowledge of products and creating a hassle-free shopping experience.

KAIMONO makes possible the concept of selling anywhere, anytime. Retailers no longer have to constrain sales within physical shop space or opening hours. With the dissolution of such retail boundaries, retailers can look forward to increase in sales and higher customer satisfaction.



SLOVENIA



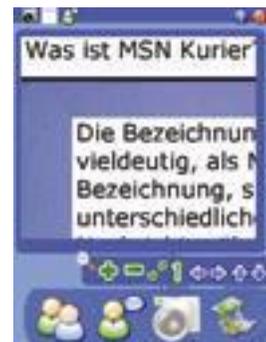
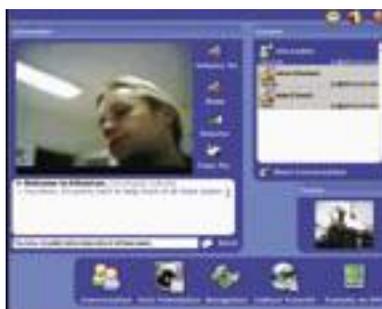
Project Name ETHNOCON - CONVERGING CULTURES
University Faculty of Electrical Engineering & Computer Science
Team Members TADEJ GREGORCIC (Maribor)
SIMON JURIC (Maribor)
BORIS KRIVONOG (Crna na Koroškem)
MIHA LESJAK (Crna na Koroškem)

OVERVIEW OF PROJECT

Man is a social being. But in spite of all the magnificent advances of technology in the recent years, the average person is still limited in his ability to effectively function as such within the omnipresent heterogeneity of our society. Natural boundaries such as culture, language, location, knowledge, as well as the on-request manner of information acquisition, are all well definable. However, they are seldom tackled in a way that would allow the average person to extend his/her possibilities beyond their traditionally conceivable frontiers. EthnoCon challenges these difficulties with a combination of technology, innovation, and intuition, with the aim to give the user the chance to seize opportunities no matter how remote, unintelligible or strange they may seem.

TECHNICAL OVERVIEW

The main instruments chosen to challenge the problem include: - Videoconferencing (Real-Time video-streaming on all platforms) - Speech Recognition and Synthesis (recognition of audio from the clients on the server and conversion of text to an audio stream) - Sound Compression (sound compression for audio streaming) - Automated Translation (Simultaneous translation of spoken or written text) - Automated Punctuation and Context Analysis (Advanced sentence-processing algorithms that optimize the translation input) - Epicto (Conversion of text into a universal pictograph-oriented language (and vice-versa)) - Extendable and robust MSN Messenger-style conversation server - GPS navigation - Econverge (An extensive network system which significantly improves the socialization process) - OCR with automated translation and Layout retention - Culture Tutorials (When a user enters a new country and connects to EthnoCon, he is greeted by a multimedia feed with the basic cultural information) - Suitable for individuals with visual and hearing impairment (- Support for Multiple platforms (PC, Pocket PC, Embedded, ...) - Intuitive User Interface



SOUTH AFRICA



Team Name TEAM FUTURE BOYS

University Nelson Mandela Metropolitan University (NMMU)

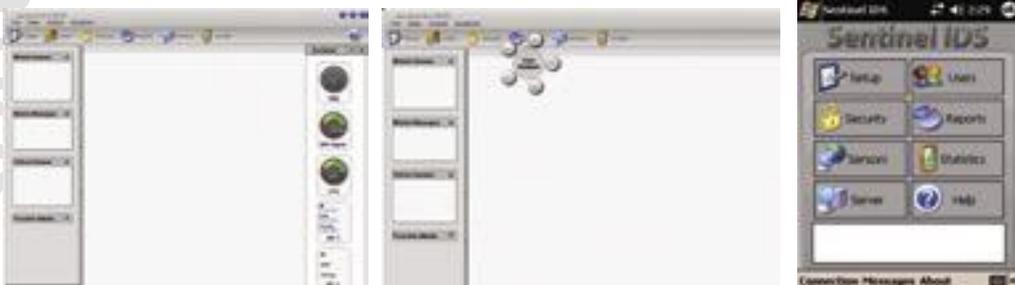
Team Members DEMETRIOS LOUTSIOS (Port Elizabeth)
ROBERT GOSS (Port Elizabeth)

OVERVIEW OF PROJECT

Both novice and experienced computer users, worldwide, fear becoming victims of cyber-crime resulting from vulnerabilities in their computer systems. This is manifested in, e.g. the leaking of corporate secrets, personal information, medical records, credit card details, and computer usage habits; the list becomes quite unwieldy. Sentinel IDS, provides a powerful solution to help combat security breaches, within an organization's network infrastructure. Consider the ramifications for organizations worldwide, saving billions of dollars annually by minimizing security risks. The core of the software is a Proactive Intrusion Detection System (IDS) build on the .NET framework. The software utilizes two forms of Artificial Intelligence (neural networks and fuzzy logic), implemented in a hybrid methodology (Misuse and Anomaly detection), breaking down traditional boundaries which exist within the intrusion detection field. The system utilizes network- and host-based attack information, allowing for more accurate, proactive discovery of attacks, in real time. The system aims to overcome most of the short-comings of existing IDS's, by being more user-friendly, requiring minimal interaction to setup and maintain, and providing configurable automated attack responses. Alerts are sent to administrative staff via any .NET compact framework enabled device, anywhere and any-time, no longer binding them to any one physical location in order to do their job. The system is self-adaptive and constantly learns new user habits, minimizing false alarm rates.

TECHNICAL OVERVIEW

The Sentinel system makes use of a hybrid approach to intrusion detection. The system is implemented using fuzzy logic and neural networks. A third higher level component the Central Analysis Engine (CAE), takes the combined output of the two lower level components and formulates the attack probability value. The system is entirely built on the .NET framework, using mainly C#. The system is multi-tiered, and extensible. We make use of windows services, ADS, MS pocket pc 2003, Web Services, end-to-end network Encryption, SQL server database, and a range of other technologies and standards. Users interact with the system via a desktop application, or a mobile client. The mobile client and server application both connect to a central "server service", this component does the bulk of the processing. The desktop application is a GUI front end to the service, connected utilizing .NET Remoting. Mobile clients receive real-time and pre-emptive attack reports.



SPAIN



Project Name EMI2
University University of Deusto
Team Members DANIEL GARCIA GOMEZ (Santander),
JAVIER FERNANDEZ GONZALEZ (Santander),
IVAN GARCIA COSSIO (Bilbao)

OVERVIEW OF PROJECT

Ambient Intelligence (Aml) defines an interaction model between us and a context-aware environment, which adapts its behaviour intelligently to our preferences and habits, so that our daily life is facilitated and enhanced.

Current mobile devices are equipped with continuously increasing processing and storage capabilities, and better communications mechanisms (Bluetooth, Wi-Fi...). Moreover, they are far more easily programmable with platforms such as .NET than ever before.

An interesting new application domain for handheld devices may be represented by Ambient Intelligence (Aml), where they can be used as intermediaries between us and our surrounding environment. Thus, the devices will behave as electronic butlers who assist us in our daily tasks, by interacting with the smart objects (everyday objects augmented with computational services) surrounding us.

The EMI2lets project proposes a novel platform targeted towards facilitating the development and deployment of Aml scenarios in locations such as our home, our workplace or even public places such as cinemas or bus stops. EMI2lets enables us to interact from our mobile devices with objects that are or had been in our proximity. In essence, EMI2lets provides the infrastructure for adding computational services to commonplace objects (a door, a meeting room) and later discovering and accessing those services from our mobile devices.

TECHNICAL OVERVIEW

EMI2lets is a platform for developing Ambient Intelligence (Aml) scenarios which addresses the intelligent discovery and interaction among smart objects and mobile devices. An EMI2let object is a mobile component transferred from a smart object which normally offers a graphical interface to interact with that smart object.

This project contributes with:

- A programming framework.
- An integrated development environment (EMI2let Designer).
- An EMI2let Player and an EMI2let Server.

The main features of this platform are:

- It transforms mobile devices into universal remote controllers of smart objects.
- It is agnostic of the underlying service discovery and interaction, graphical representation and persistence mechanisms, following a plug-in based architecture.
- The EMI2lets developed follow a “write once run in any device type” philosophy.

EMI2let has been used to augment objects such as parking booths, light systems or bus stops, with computational services. It allows a user's



SRI LANKA



Project Name EZYBIZZ BY SIVUMITHUN[4 AMIGOS]

University Faculty of Information Technology,
University of Moratuwa

Team Members GAYAN PERERA (Dehiwala)
CHANDIMA JAYASRI (Kelaniya)
SITHIRA WEERABAHU (Kurunegala)
ANUPAMA AMARASINGHE (Gampaha)

OVERVIEW OF PROJECT

The ezyBizz system focuses on re-engineering the process of producers selling their produce to traders, and automates the model with the objective of giving higher margins to producers as well as others by cutting down the unnecessary steps through the technology. The objective of ezyBizz is to facilitate linkage between sellers, buyers and logistics handlers of produce, by: - breaking the language barriers involved - addressing the geographical dispersion - providing relevant and timely marketing information and intelligence - providing a transparent and competitive market price discovery mechanism - providing a total automated business solution - harnessing and applying ICTs for rural value addition and empowerment in order to establish a 'Commodity Exchange' in the developing countries of the highest integrity facilitating competitive and efficient trade. The system would be available to the citizens of those countries as well as regional and international traders based upon an open free market system for the mutual benefit of sellers and buyers, and to facilitate the marketing of any commodity provided or desired by any consenting parties through the auspices of the exchange dissolving cultural, geographical and technological boundaries.

TECHNICAL OVERVIEW

The ezyBizz consists of 5 sub systems, which are integrated together to acquire the expected functionality out of the system. They are namely: - The Independent Web Services - The Mobile Web Application - The Web Portal - The Standalone Administrator Tool - The Standalone PDA Tool. These modules use - the huge untapped potential of Internet for data communication(XML/HTTP/WML) - the power of Microsoft .NET technologies for development(VB.NET/ADO.NET/ASP.NET/MS SQL SERVER 2000) - the mobile technology for adding mobility(.NET COMPACT FRAMEWORK/XML) - the UNICODE character set for localization(UTF-8)



SWEDEN



Project Name VESTIGO
University KTH - ROYAL INSTITUTE OF TECHNOLOGY
Team Members OLLE BERGDAHL (Stockholm)
MIKAEL JOHANSSON (Stockholm)
MIKAEL RUDHOLM (Stockholm)
GUSTAF LINDQVIST (Stockholm)

OVERVIEW OF PROJECT

We have developed Vestigo, a new concept for allowing aid organizations to work in registering and searching for lost people more effectively. Catastrophes can happen at any time and at any location and create boundaries when families are separated. Aid organizations do a great effort in the search of lost persons but are requesting a more effective way of working. Today registrations for lost people are often made on paper forms. The administration of information that is collected on paper is often time consuming and difficult to manage. Vestigo replaces the manual administration of paper forms with a distributed information system. Fieldworkers can by using Vestigo, no matter of geographical location and time, easily access all information needed to successfully manage the work of searching for lost persons. Vestigo Registration Procedure guides the fieldworker through the registration and avoids duplicates and incorrect information to be stored in the system. Interaction with the system covers the range of many alternatives: web browser, laptop and smart client. Problems with reliable network connectivity exist in catastrophe areas. Vestigo is designed to be deployed, and function autonomously, within a catastrophe area where no or limited connectivity to the outside world is available. Furthermore, fieldworkers outside the camp area will not always have connection to the Vestigo server but can access system functionality since the smart client application has support for working offline. Integrity of the information is another important issue the system addresses. Other features include: ability to share information with partner systems and possibility for relatives at a distant location to interact with the system. Our concept of Vestigo radically improves the way of work in any disaster that may occur. Families can be reunited faster than before as a result. Vestigo is the Latin word for “to trace”.

TAIWAN



Project Name I4CE

University National Taiwan University

Team Members LI JUNG CHIU (Taipei),
TING-HSIANG HUANG (Taipei),
SHENG-KAI LIN (Taipei), CHUN-WEI HSIEH (Taipei)

OVERVIEW OF PROJECT

MemEx is a collaborative platform that allows users to share personal experience through various forms of digital life artifacts. It offers an integrated environment for experience capture, sharing and exploration. MemEx dissolves boundaries by bridging experience gap through automatic narration and fosters interaction by allowing annotation exchange on top of these shared experiences. MemEx is also capable of re-organizing the information from the experiences to provide helpful travel information to people within your social network. It unveils the beauty of a place and allows you to get one step closer to the place you are unfamiliar with in a non-traditional manner. Over and above that, MemEx extends your experiences via personal computers as well as other mobile devices which allows you to stay connected and updated anytime and in any place. Having the knowledge of the connectedness amongst people in the social network, MemEx brings relevant experiences to your fingertips. Moreover, MemEx foster human interaction beyond the virtual world through interaction reminders. With all these, MemEx presents a complete boundary-dissolving package by bridging initial experience gap, creating common ground for interaction in the virtual world, and then encourage real-life face-to-face interaction.

TECHNICAL OVERVIEW

MemEx is the realization of Vanevar Bush's Memex taken into the 21st century's context in a more focused fashion. To perform as a memory extension, MemEx utilized a number of multimedia processing techniques, such as image matching, face recognition, and keyframe extraction to analyze the content detailing the experience. Global Positioning System coupled with a geographical information database provides additional metadata to those embedded in the multimedia content. Agent and Social Network technologies also sit at the core of the system to provide people information and service to the client. At the client side, Text-to-Speech technologies as well as Information Visualization concepts are adopted to add friendliness to our base 3D presentation space. The 3D environment made use of all the basic DirectX 3D graphics technologies from 3D transforms, Quaternion, to alpha blending and texture mapping. Lastly, the binding technologies for them all are Microsoft .NET, web services and XML.



THAILAND



Project Name PENTOR
University Chulalongkorn University
Team Members PONGPHAT SAKULCHAIYAKORN (Bangkok)
SOMBOON LAO (Samutprakarn)
JAKRAPONG NARKDEJ (Samutprakarn)
VORAPONG SUPPAKITPAISARN (Bangkok)

OVERVIEW OF PROJECT

This services' main objective is to solve problems concerning communication and travel which are considered the most important things that create boundaries between people. Normally, when you interact with foreigners, you would find it very hard to make conversation. As a result, "Companion Transform" offers you a variety of translations, included multi-language dictionaries, in which you can either type the sentences you want to say or select from provided conversation which is sorted in categories. To make it real, you can even pronounce translated sentences by pressing the talk button or show the Sign Language video clip of the word. Moreover, with the Image Recognition System, you'll understand any sign anywhere, thus dissolving more communication boundaries. In addition, we also provide essential information for the user to ease difficulties in traveling such as a map, route, currency and news & weather. With a friendly user interface, you can just select your destination and the services will take you there by simply showing you the map and describing the route to the desired destination with important information and culture of that city. While you're traveling, you can still keep up with updated news and weather in many different languages. Last but not least, in your personal mode, you can calculate your exchange rate and manage your personal information with our Smart Organizer. In conclusion, with Companion Transform, you can just think what you want to say and go anywhere you want without boundaries.

TECHNICAL OVERVIEW

This application dissolves communication and travel boundaries by integrating many kinds of web services together, included own our web services. To solve communication problems we have sentences which are sorted into categories and a word meaning database of about 1 million as well as sign language video clips. We use statistical data from a users' behaviors to predict the next sentences to be spoken. Moreover, with image recognition systems the program is able to detect signs or word symbols matched to our signs database. In addition, we have integrated Microsoft Mappoint "Place finder" and "Route finder" web services with city information and more. With "RSS Feed" Technology we provide updated news from big news agencies and searchable news. While you're traveling, you can also check up weather report or weather forecast. Last but not least, in your personal mode, you can calculate your exchange rate and manage your favorite sentences to be more convenient in conversation.

TURKEY



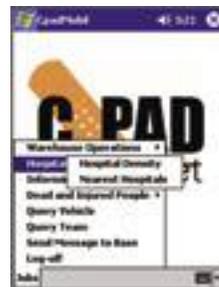
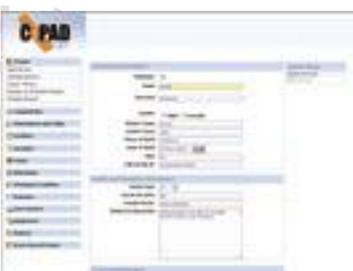
Project Name CPAD.NET
University Erciyes University
Team Members ALI AYEN (Ankara)
ISMINGAZ AHU OZTURK (Mugla)
MEHMET IKBAL KARLI (Nevsehir)
UGUR KAVZA (Istanbul)

OVERVIEW OF PROJECT

Disasters are no respecter of language, religion and ethnicity when causing damage to people. Every year, thousands of people either lose their lives or are fatally affected due to tsunami, floods, typhoon, hurricane and volcanic eruptions. After the aforementioned disasters the management in the area of disasters becomes a hard one to deal with and the precautions to be taken have a vital importance. Besides, all the resources in these areas should be managed productively; a communication network should be set up and organized within and outside these areas. CPAD.Net (Crisis Prevention After Disasters .Net) is a project foreseen as a solution to these problems. The main purpose of the CPAD.Net, which presents solutions to problems ranging from the management of sources to the communication networks, is not to manage the crisis setting which occurs after disasters but to prevent crisis from happening. It provides a platform which enables people speaking different languages to cooperate with each other for help after disasters. People outside the areas of disaster get opportunity to help people they do not know by means of CPAD.Net that dissolves boundaries between people in the world. Consequently, an effective disaster management system is realized.

TECHNICAL OVERVIEW

ASP.Net Web Services along with the mobile technologies form the basis of the project. With the help of web services of the sources needed in the neighboring cities and countries can be searched for and with the help of using mobile technologies the data in disaster areas can be accessed directly. Data is stored in Microsoft SQL Server 2000 database, all mobile applications, web services and the ASP.Net Web form applications are run on Windows Server 2003. During the software development the Microsoft Solutions Framework (MSF) for Agile Software Development methodology with Extreme Programming has been followed. Application is designed as an N-tier architecture. For data manipulation an object oriented library developed with Abstract Factory and Singleton Patterns. For ease of use user friendly interfaces and features are developed. The software is ready for any future improvements.



UNITED KINGDOM



Team Name BIT SHIFTERS
University University of Bournemouth, City University,
Team Members University of Wales, Aberystwyth
ADRIAN COLLIER (Reading)
ANDREW WEBBER (London)
JOSEPH WARDELL (Reading)

OVERVIEW OF PROJECT

OneReach enables gap-year students to blog their journey and experiences from anywhere in the world from their smartphone. Parents and friends at home can view their progress and blogs, pictures and videos on a website and keep in contact with them. Travellers can also immerse themselves in a global community of gap-year students, where they can search for activities, restaurants and hostels recommended by other students and participate in location aware forums connecting the virtual world to the real world. They can even search for like-minded people staying nearby and meet up. Our solution aims to enhance the gap-year experience; sharing it with parents and friends and also facilitating community interaction with fellow gap-year travellers around the globe.

TECHNICAL OVERVIEW

OneReach has been developed using leading edge Microsoft technologies and within a solid architecture OneReach provides the traveller, parent or friend with an intuitive user experience. The rock solid back-end is capable of scaling to thousands of users and partners thanks to distributed clustering using GRID technology. The use of Avalon for the desktop user experience is bleeding edge, and allows the user to interact with and navigate OneReach for a truly compelling user interface. OneReach easily manages a traditionally computationally intense system through the use of the Data Swarm computational GRID; empowering intensive graphical and data processing, scalability and reliability required for an experience suited for the next generation. Messaging is handled by Indigo and Web Services to ensure secure and reliable communication between devices, partners and content providers and exposes an easy 'plug in' mechanism for partners to opt into the system and an easy content extraction model to allow any user to obtain information anywhere on any device in one reach.personal



Software



Project Name LINK
University Virginia Commonwealth University
Team Members JOHN SELLS (Richmond, Virginia)
JOHN MCKEON (Roanoke, Virginia)
JAMES BARRETT (Richmond, Virginia)

OVERVIEW OF PROJECT

LINK is an application suite designed to utilize the portability and performance of the Tablet PC to facilitate writing and phonetic education for all ages and abilities. The LINK system is comprised of four independent modules: Character Studio, Lesson Workshop, Lesson Launch Pad, and LearnWithInk.net. Students complete lessons using the Lesson Launch Pad that have been created by educators with the Character Studio and Lesson Workshop. Students are directed through the writing process and receive immediate feedback based on their input. Once lessons have been completed and synchronized with the central server; objective scores, system comments, and actual student input are available to parents, teachers, and school administrators. Through the LearnWithInk.net web-reporting interface, teachers are held accountable for classroom performance by school administrators. Parents can see their child's completed lessons and compare their child's performance with other students in the school system. The focus of the LINK system is to aid early childhood education students in learning the fundamentals of writing in their primary language. LINK is also used by secondary, higher, and adult education students to develop international language writing skills.

TECHNICAL OVERVIEW

The LINK system was built using C# and .NET 2.0 with a SQL Server 2005 backend and is comprised of four independent modules: Character Studio, Lesson Workshop, Lesson Launch Pad, and LearnWithInk.net. The Character Studio captures ink objects that are transferred to the central database using Web services. Characters are then available to educators to construct lessons using the Lesson Workshop. Lessons are published to the server and retrieved using the Lesson Launch Pad running on a Tablet PC. Students complete teacher-assigned lessons by drawing ink objects which are analyzed against character ink objects using the integrated grading engine. The Tablet PC uses SQL Server Express to store data in a connectionless environment and will synchronize with the central database once a connection is reestablished via Web services. LearnWithInk.net is a secure portal for parents, teachers, and school administrators to access individual and aggregate reports generated by Reporting Services.

VIET NAM



Project Name IMS.NET - GREEN BAMBOO GROUP

University Technology University of Hanoi,
Army University of Hanoi, Northumbria University,
Vietnam National University

Team Members DINH LE TUAN ANH (Ha Noi)
DUONG KHANH CHUONG (Ha Noi)
NGUYEN NGOC QUYNH (Ha Noi)
NGUYEN NHU QUYNH (Ha Noi)

OVERVIEW OF PROJECT

Have you ever imagined that you could manage your home with just a Pocket PC? Have you ever dreamed of controlling your company just with few clicks? Have you ever thought of making a change of security systems with higher level in your enterprise? Our solution deals with those problems, especially in the improvement of security systems in any organisation. According to the theme of IC 2005 “dissolve the boundaries”, Intelligent Mobile Space.Net was born. Now with any Pocket PC and iMS.Net product, you yourself can own your time. Our aims are to make less the time required and decrease the complication in managing a system. The key features are Camera and Identify. Those functions apply on PPC to help the user controlling the organisation wherever and whenever on the move. After all, iMS.Net hopes that it will become the higher step for security systems and making life easier



VISUAL GAMING

The Visual Gaming and Visual Gaming high school invitationals call on students to combine programming skills with game strategy and knowledge of AI. Six teams in each category advanced through three rounds of competition to get to this point, and over a 24 hour period in Japan will attempt to save Professor Hoshimi from his coma. Nanobots and white blood cells will come to the forefront in this category, and the plot may take some twists and turns...

Visual Gaming

BRAZIL



Team Name FEU

University PUC MG

Team Member BRUNO FEU DE CARVALHO PINTO DA SILVA

BACKGROUND ON TEAM

Bruno Feu is a Project Manager at HTP Solution, Student Ambassador from Microsoft Brasil and leader of the .Net study group at PUC University, where he studies Computer Science. Bruno's expected graduation date is November/2005, he works on the Technology field since 1998, when he was only 15 years old. This is the second year that Bruno participates in the Imagine Cup, in 2004 he placed 6th in the Brazilian qualifiers of the Software Design category, this year he not only qualified for the Visual Gaming finals at Yokohama but also placed 3rd in the national qualifiers for the Software Design category.

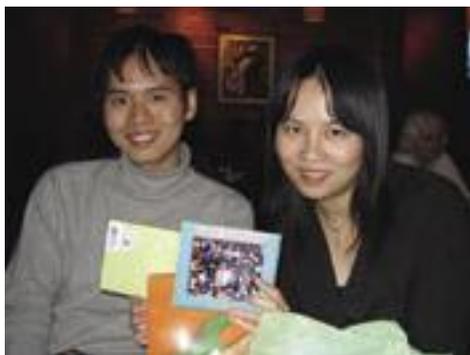
IN A 150 WORDS, WHAT WOULD BE YOUR ALTERNATE ENDING TO PROJECT HOSHIMI?

Everyone will probably say the same thing, but my ending is that the Professor will be saved by the nanobots, thus proving that his theory was right all the time. With his technology he will be able to save lots of people from all the world. Also, Pierre gets caught by the Police and ends up in jail.

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

I would like to thank everyone who supported me during the cup, I will not list names, but they know who they are. I'm sorry that I couldn't show up in all those happy hours, but it was for a greater good. I am very proud to be representing Brazil in the finals, I love my country and I will do the best to win the 1st prize.

CANADA



Team Name MACROPHAGE
University McGill University
Team Members ALFRED TZE MUN LEUNG (MONTREAL)
TING-YU WANG (MONTREAL)

BACKGROUND ON TEAM

Macrophage consist of two third-year students from McGill University: Alfred Leung studying Software Engineering (Department of Engineering) and Ting-Yu Wang studying Medicine. Alfred started programming/software development in university three years ago with Java and C. Neither of the team members have developed in C# or used Visual Studio prior to Imagine Cup.

Alfred and Ting-Yu have known each other for almost 5 years now and are best friends. At a Microsoft presentation at McGill, Alfred was informed about Imagine Cup and was told that McGill does not normally do well in this competition. Hearing this, he felt motivated to prove them wrong and show that although new, Software Engineering is a very good program. He told his best friend, Ting-Yu, about this contest. Although she had never programmed before, she showed great interest and contributed by giving ideas in creating the team Macrophage for the Visual Gaming category (video games are an interest among this team).

IN A 150 WORDS, WHAT WOULD BE YOUR ALTERNATE ENDING TO PROJECT HOSHIMI?

It turns out that in the letter addressed to Pierre from Professor Hoshimi in the first episode, Pierre was asked to inject the second virus! This ensures that the nanotechnology is strong enough to handle the original virus.

Now in the final round, competitors need to face WBC, BBC, and the real virus. The real virus is much stronger: aside from the attacking drones, there are "explorer" drones with large scan range. It also has a search and destroy mission for the NanoAI! Competitors in this round are placed individually in a *new* tissue -- the vital point for curing diseases (the heart?), and must try to deliver as much AZN to the Hoshimi points as possible to save the professor. All this must be done with the existing AI due to time constraints -- let's hope our AIs are good enough and can adapt to save the professor!

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

"A ring is round and has no end, that's how long I'll be your friend." We'd like to tell all our friends, whether we speak to them daily or yearly, that we cherish their friendship a great deal. Even though we are all in different programs and see each other rarely, the few moments shared between us have always been our support and our joy.

Last but not least, we would also like to thank our family, for they are our greatest support, helping us when we feel down and cheering with us when we are happy.

We want to thank you all for everything you have done for us; it is you who shaped the way we are today.

CHINA



Team Name DIYINSIDE TEAM

University XiHua University

Team Members ZHEN LIANG (Chengdu City)
LePan Qiu (Chengdu City)

BACKGROUND ON TEAM

The Diyinside Team is built by 2 Computer Science major students in Xihua University in Sichuan, China. The team members are members of Diyinside Community, which is an independent non-profit technical Community. The Community was started by Microsoft MVPs. Both Xihua University Network & Software College and Diyinside Community provide support to this team for the ImagineCup competition. The team leader Zhen Liang has been a Microsoft Windows MVP since September 2003.

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

Thanks very much to all my friends for your long-term support. You guys realized my full potential. First, I want to thank my parents. I clearly know I cannot get any success without your great support. Then, I want to say "Thank you" to Microsoft Corporation, and to all my mentors at Microsoft. Thanks Dr Kai-Fu Lee, Grace Zhang, Na Zeng, Xiaodong Li, etc. Thirdly, the help of Xihua University is appreciated. I want to thank Director Xuebin Huang, and I also want to thank my advisor Yong Kang. Finally, a very important thing I want to say is to thank Diyinside Community and the whole Community staff. Especially thanks the support of Nuo Yan, who has started the Community; thanks the support of Linchun Jiang, who manage the technical research part of the Community; thanks the support of Peng Sun, who has provided advanced training to our team.

ESTONIA



Team Name BALTIC NANOTECH GROUP
University Tallinn Technical University
Team Member ALEKSEI VASSILJEV
Hometown Tallinn

BACKGROUND ON TEAM

I am a computer science student, and after one year I will receive master degree (MSc). Also I am working as software developer since 2001 - building business software.

IN A 150 WORDS, WHAT WOULD BE YOUR ALTERNATE ENDING TO PROJECT HOSHIMI?

They all lived long and happily :)))

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

I have told you - we have great chance to enter the final! So do not forget to take part in Imagine Cup 2006

POLAND



Team Name AI@PUT

University Poznan University of Technology

Team Members Wojciech Jaskowski (Poznan)
Jakub Gorgolewski (Poznan)

BACKGROUND ON TEAM

ai@put - as the name says, team originates from Poznan University of Technology, Poland. We both are doing our M.Sc. in Computer Science - Jakub on Computer Networks and Distributed Systems specialization and Wojciech on Intelligent Decision Support Systems specialization. We find solving complex and hard (even NP-hard) problems exciting and challenging and that is why we took part in Hoshimi Project.

IN A 150 WORDS, WHAT WOULD BE YOUR ALTERNATE ENDING TO PROJECT HOSHIMI?

Nano AI with victorious software on board was injected into doctor Hoshimi's blood vessel. Basically it did its work but... There was one problem: white cells - the patient organism's main defense line. Doctor Hoshimi really didn't care about them, they were another obstacle on his way to glory, another obstacle to be smashed apart. Soon after injection, when all Hoshimi Points were occupied by nano needles and filled with AZN molecules, nano collectors, having nothing to do, spread around whole organism hunting white cells "for sport". Unfortunately, Pierre defensive virus, which was supposed to protect white cells could not match the nano collectors' firepower. White cells' number went drastically down. Soon first infections started, mostly caused by common viruses that could be easily tamed by white cells, but white cells were practically exterminated. In a matter of hours all internal organs were irreversibly damaged. Doctor Hoshimi died 19 hours after injection.

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

First of all, we would like to dedicate our final AI to our girlfriends: Dobrosia and Kasia. Thank you for your supporting words during long coding nights... We would also like to thank Szymon and Przemek (Bird Hunters) for creative discussions about AI strategy.

visual oaming

POLAND



Team Name LORDS OF THE BOTS
University Technical University of Łódź
Team Member RAFAL GLISZCZYŃSKI (Łódź)
PRZEMYSŁAW MAKOSIEJ (Łódź)

BACKGROUND ON TEAM

We are both students of computer science with specialization in artificial intelligence and software engineering. We have known each other since the third year of studies and have successfully cooperated on many projects since. We are fascinated by artificial intelligence, evolutionary computations and algorithms, so we found the Visual Gaming invitational perfect to test our skills in these areas.

IN A 150 WORDS, WHAT WOULD BE YOUR ALTERNATE ENDING TO PROJECT HOSHIMI?

As professor Hoshimi finally woke from the coma he shouted “Yes! A success! So in the end I was right... but what does this mean?”, he asked looking at the gun aimed at him by Ori. “Yes professor, you were right, you are a genius and be sure, one day the world will know about it...”, Ori said calmly. “What do you mean ‘One day’? We have to announce it right now! Millions of people could be saved by the use of my method!” replied the professor. “Perhaps”, Ori continued, “But your invention would have a devastating effect on the economy - thousands of people would lose their jobs, pharmaceutical companies would bankrupt and many influential people would lose money, so they would rather see you dead”. “Money?!”, shouted the professor, “Is it all you can think of? Money? You value it over peoples’ lives?”. “I knew you wouldn’t understand.”, said Ori, “You are an idealist, professor, I greatly admire your kind, truly, but you just don’t understand the complexity of the world...”. “No!, Wait!, Aaarrgghh...”.

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

Best wishes to those who believed in us and to those who didn’t - we made it anyway, to the teachers that inspired us, to our families that supported us all the way, what required a lot of patience and good will at times, to our friends, especially Ann, and everyone in Łódź, Poland, Earth, this and other Universes. Wish You were all here with us...though it would be a bit crowded then...

FRANCE



Team Name ERAGEEKOR
School Name Lycée J.F. ARAGO
Team Member HANOL RÉGIS
Hometown Ponteilla

BIO

I love Artificial Intelligence, and this contest help me to learn a lot about it. It's very exciting to learn during a challenge because it helps me to better remember :p

IN A 150 WORDS, WHAT WOULD BE YOUR ALTERNATE ENDING TO PROJECT HOSHIMI?

The virus that professor hoshimi injected himself will contaminate the whole world and NanoBots will be the only one solution for people to live on earth. Without NanoBots, that are like "life-helpers", viruses contaminate "uncomtaminated" people and they die one day after the contamination.

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

For my friends, that I'll do my best to honor my reputation of Nerd. For my girlfriend (laure) and my family, that I'll do my best to continue making them proud of me (especially to my mum and my girlfriend who told I won the trip to Japan to the whole neighborhood and school :p)

FRANCE



Team Name Z2
School Name Lycée Sévigné
Team Members PATRICK NOLAIN (Rennes)
YOANN CHAUDET (rennes)

BACKGROUND ON TEAM

We are a team from Brittany in France, we are both 17 years old. We program in .net (especially C# for the contest). At the beginning, we took part to the Visual Gaming category for fun, it was the invitational which attracted us much because of the Artificial Intelligence we had to develop and our impatience about how the competition was going to proceed (story, improvement of the SDK...).

IN A 150 WORDS, WHAT WOULD BE YOUR ALTERNATE ENDING TO PROJECT HOSHIMI?

Ok, let's go for an hallucination :p. The nanobots may have too many difficulties to fight black and white cells so Ori will have to create a new bot (nanocontroller ?) which would be able to let a human being user control the nanobots which are located next to that bot.

JAPAN



Team Name FAL
School Name Nada High School
Team Member SHINEI KATO
Hometown Japan

BACKGROUND ON TEAM

The first grade in high school.

IN A 150 WORDS, WHAT WOULD BE YOUR ALTERNATE ENDING TO PROJECT HOSHIMI?

All was the dream.



JAPAN



Team Name SNOB

University Ichinoseki National College of Technology

Team Member KAZUKI KUMAGAI

Hometown Iwate-Ken Japan

BACKGROUND ON TEAM

Team “snob” was formed in December, 2004. I came across Imagine Cup when I was net surfing. I’m not so good at English (In fact, I am writing this with my teacher’s help), so I decided to take part in Visual Gaming Category which doesn’t need linguistic ability so much. However, I think that to learn English is necessary to communicate with people worldwide, for example, on Visual Gaming Hub. Therefore in Yokohama I want to communicate with people of various countries and to study a lot of things.

IN A 150 WORDS, WHAT WOULD BE YOUR ALTERNATE ENDING TO PROJECT HOSHIMI?

It is really wonderful that due to progress of science, all diseases in the world would be extinct, and many people who suffer from their serious disease would be saved. Whereas there are a lot of difficult problem such as food crisis caused by over growing population, I hope Prof. Hoshimi would survive. But it may be better that his research would fail.

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

It’s due to a lot of people who advised me that I can participate in this contest. I’ll do my best with all my ability.

SERBIA & MONTENEGRO



Team Name SYSPRO_ANDREJ_CVORO
School Name Matemacka Gimnazija
Team Member ANDREJ CVORO
Hometown BELGRADE

BACKGROUND ON TEAM

I was born on 17th of July 1990 in Mostar, Bosnia and Hercegovina. I finished primary school in Belgrade (1997-2005). During my studies I have had highest marks in all subjects, and due to maximum points I have got the greatest award for the pupils in Serbia - "VUK KARADZIC". I take part in all the competition in maths, programming and English language every year and I have achieved the leading positions. I have been voted as the PUPIL OF GENERATION in my school at the end of my studies in primary school. I have been attending ARHIMEDES - the school for talented children in maths. For years, I have been interested in computers information, maths and electronics. I have taken an entrance exam in Maths Grammar School in Belgrade this year and I have gained the maximum result - all 120 possible points. I have been attending the school of programming "System Pro" in Belgrade since the beginning of its work, it means 3 years completely. I have discovered there what I am the most interested in with all the help of great teachers and that is programming. So that's why I have achieved the significant result in this year's competition IMAGINE CUP. I have been practicing swimming for six years, and it is the sport I have been doing for the longest time.



SERBIA & MONTENEGRO



Team Name SYSTEMPRO2
School Name Matematicka Gimnazija
Team Member Nemanja Trifunovic
Hometown Beograd

BACKGROUND ON TEAM

I'm the only member of my team. I come from Serbia and Montenegro. I live in Belgrade with my parents and my younger brother. My father is coming with me to Japan. He is the head of Automatic Data Processing Unit in Republic Statistical Office and my mum is a vet. I go to Mathematical High School as a gifted student. I also go to computer schools SystemPro and CET. SystemPro does the preparations for this competition. We have classes twice a week. We make our programs better and we fight each other. We are fighting on the different maps every time and we have different winners. In my free time I go ice skating and play football with my friends. During the weekends I go to the cinema with the friends.

IN A 150 WORDS, WHAT WOULD BE YOUR ALTERNATE ENDING TO PROJECT HOSHIMI?

I expect to fight with each of the players and to see how good I am. I expect that white cells and viruses will be more aggressive. I expect to see Yokohama and probably Tokyo.

WHAT WOULD YOU LIKE TO SAY TO YOUR FRIENDS AT HOME?

I'd like to tell them to try to enter the competition next year and I wish them luck. I would like to tell them how happy I am because I'm going to visit Japan and compete with other players in final competition.

visual gaming
high school



WEB DEVELOPMENT

The **web** is one of the **fastest growing mediums of communication**, and web developers are **pushing the boundary** of how we **function and interact online**.

Student teams in web development and web development high school were called on to create websites and web applications that **enhance** the online learning process, and **embarked** on projects as far ranging as **better user interfaces** for navigation, **communities** for information exchange, self assessment and evaluation sites, and **more**.

web development

HONG KONG



Project Name BILATERAL LEARNING CENTER

School Name CCC Kei Yuen College

Team Member NG, CHOR KI (WILSON NG)

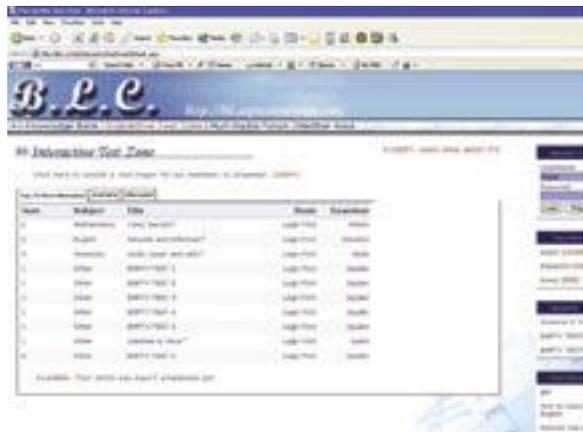
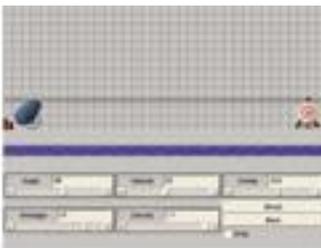
Hometown Hong Kong

Also a finalist in Web Development High School

OVERVIEW OF PROJECT

In the 21st century, knowledge is created and shared by communication. Advances in technology makes teaching and learning bilateral and hence more effective than traditional means. Bilateral Learning Center (BLC) leads you to an entirely different way in learning. Compared with traditional classrooms, the roles of learners and teachers are interchangeable in BLC. Not only can members have the opportunity to share their knowledge through discussions, they can also have the right to create knowledge in BLC. As a result, teaching is no longer led by teachers alone, but all members in the center. Another indispensable attribute of BLC is, without the limitations of traditional classrooms, it can help members foster their problem-solving skills. For instance, BLC members can both create and attempt tests consisting of 4 types of questions, for example, True/False, Numeric Response, Completion and Multiple Choice. Furthermore, in order to encourage members to participate more actively, each posting or completion of test is awarded through the credit system. ASP.NET is used to connect various technologies, building all-rounded education sites. Also, Rich Client Interface is provided by Flash while immediate report of test performance in the Interactive Test Zone is output by Crystal Report. Speech Enabling Microsoft Agent called by Active X provides an enriched form of user interaction. In addition, BLC is also designed to support Windows Mobile allowing the use of pocket PC to access BLC at anytime and anywhere.

URL: <http://blc.zs.hk/KnowledgeBank/Default.aspx>



PHILLIPPINES



Team Name THE WEBBIES
School Name Agile Philippines Technology Center
Team Members JOSE A. CAPISTRANO IV JR (Olongapo City)
MA. THERESA F. ARIGO (Olongapo City)
MARIBEL JOY C. PANES (Olongapo City)
HANNIBAL S. FELERINO (Morong Bataan)

OVERVIEW OF PROJECT

ASSYST (Assessment System) - a web application built in ASP.NET that seeks to interpret a student's learning style. The student's input comes from his / her answers to a series of questions which will later be construed by the Assessment System by means of a narrative report and a graphical representation of the analysis.



ROMANIA



- Team Name** A.I. CORE ROMANIA
- School Name** Alexandru Ioan Cuza University , Iasi
- Team Members** IONUT CIRJA (Agapia-Neamt)
IOAN-CRISTINEL ISTRATE (Targu-Neamt)
COSTEL-CATALIN STAN (Targu-Neamt)
ADRIAN MIHAI TOPALA (Puiesti-Vaslui)

OVERVIEW OF PROJECT

Artificial Intelligence Provocation 1: Medical Rehabilitation ...invites you to begin the realization of humanity's dream of centuries: longer and pain free life. The project describes Artificial Intelligence basics and branches, fuzzy systems and applications of fuzzy systems in medicine. We hope to provide an unbiased and complete site that brings you all the most important facts about intelligent prosthesis. AI applications in medicine range from classical domains, such as electrocardiography and electroencephalography to automated diagnoses, medical knowledge discovery, medical image basis management, and intelligent techniques in rehabilitation. This site tries to provide comprehensible, yet thorough, facts pertaining to intelligent prosthesis by explaining how it is done and its uses. This site contains sections with information about aspects of intelligent prosthesis. In the first section we briefly present basic information about Artificial Intelligence, fuzzy logic theory and nonlinear techniques with learning capabilities. In the second section we review the employment of the main AI techniques adopted in medicine, like intelligent prosthesis, especially auditive prosthesis, locomotors prosthesis and pacemakers, a glossary of unfamiliar terms, and quizzes throughout to see how much you have learned at this site.

You may ask "What is an intelligent prosthesis?". As everyone who has ever reflected at the notion of "intelligence" is aware that it depends on how you define it. Of course, such a prosthesis hasn't anything to do with intellectual capacity. It's possible to imagine that the most intelligent prosthesis is actually one vast database, capable of rapidly processing a constant stream of signals, with an ingenious program and also be durable and economical. A system so intelligent, that people in suffering will no longer notice the existence of their handicap. Intended for IT and medicine students, the site will enlighten the reader to learn and understand the science of artificial intelligence in medicine and the impact of intelligent prosthesis

on today's society. As a feedback to our project we expect articles and notices, to promote your opinion over this topic, controversial posts on inner forum and even suggestions for new related topics.



BRAZIL



Project Name WAZOO!
School Name Centro Educacional de Mogi das Cruzes - Objetivo
Team Member EDUARDO SONNINO (Mogi das Cruzes)
Hometown ROBERTO SONNINO (Mogi das Cruzes)

OVERVIEW OF PROJECT

The Wazoo! web site is a community Web site for high school students around the world. The primary purpose of the Web site is to be an online center for research and questions based on asking questions and providing answers about school subjects (such as Math, Science or History) and by so creating a whole new way to solve school problems, gather information and share knowledge in a mutual and somehow competitive help system, based on points. Besides that, Wazoo! helps people connect, share experiences and make new friends around the world.



web development
high school



RUSSIA



Team Name NET.MAN
School Name High School #36
Team Member Ilia Moiseenko
Hometown Rostov-on-Don

OVERVIEW OF PROJECT

Analysis of large amounts of teaching programs, personal contacts with teachers and students, acquaintance with internet forums' discussions about educational systems contributed to the formulation of the main requirements for this contemporary computer-based teaching system:

- Use simplicity for users; comfortable interface
- Availability, geographical independence, works via Internet
- Stimulating cognitive needs, high motivation level
- Practical realization of theoretical knowledge, development and consolidation of skills
- Maintenance simplicity for system administrator
- Universality, cross-platform, device independence

My educational system satisfies all these requirements. As specific result of my work a website dedicated to chess was created. This work is important today because many rich traditions of my country are now being forgotten; the popularity of this game is lowering. Internet systems like this can change these tendencies, especially among teenagers, students, etc.

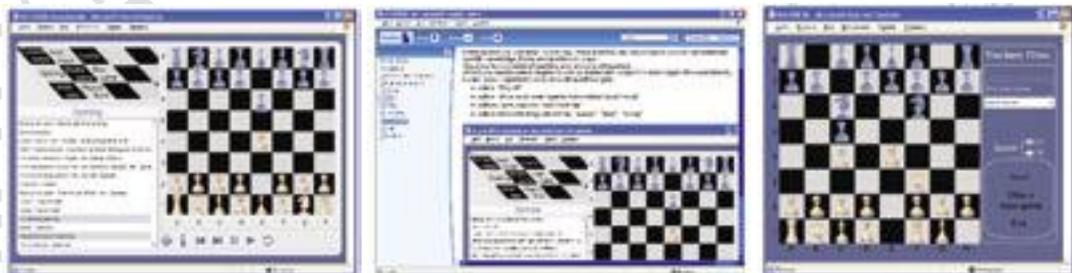
System NET.CHESS, which is deployed on the website of Rostov State University consists of 5 parts:

- environment for virtual chess games
- interactive textbook of chess game
- help system and communication means for players/students
- chat
- forum

The system is bilingual and allows momentary switch between English and Russian interfaces. Chessboard creation and chess-men placement are made programmatically; this construction can be easily modified and can be used in every game. The Flash application is responsible for checking legality of moves, verification of checks, check-mates, castling, and chess-men exchange (when a pawn reaches the last horizontal line)

The streaming mode guarantees quick start of demonstration and its perpetuity even using slow Internet connections

URL: <http://sunschool.math.rsu.ru/chess>





IMAGINE CUP 2006

The 2006 Finals

In 2006 the Imagine Cup world finals will be held in Delhi, India.

The capital city of India, Delhi and the greater metropolitan area

are home to over 18 million people and the experience of visiting is

an immersive introduction into city life in India.

The itinerary will include side trips to neighboring states, and a

final awards ceremony and festival in the heart of the city.

The India academic team will be in Japan to observe this year's

competition, so when you see one of them, wish them good luck!

Competitions will begin in October 2005.

imagine cup 2006



notes

A series of horizontal dotted lines for writing notes, spanning most of the page width.



