Knowledge is key

by **Joanna Ripard**

MALTA'S Team Kablujen Digerati may not have made it to the second round of the Imagine Cup's Software Design category, but by then Karl Fenech, Jennifer Fenech (the two are unrelated), Abigail Cauchi and Luana Micallef were already winners on two counts.

The four 20-year-old third-year B.Sc. IT (Hons) students – Abigail is from Mosta, Karl from Luqa, Jennifer from Balzan, and Luana from Msida – had made it to Seoul after winning the Malta and East Mediterranean competitions (first beating other teams from the University of Malta and MCAST, and then Cyprus, Jordan and Lebanon). And Microsoft had awarded them internships after being impressed with their Project KIKI.

KIKI (Key to the Integration of Knowledge and Innovation) is a fully integrated system that helps teachers make lessons in any subject for any age group more fun, collaborative and interactive. It is easy to use and, more importantly, extensible – so the possibilities are endless.

The project revolves around the reality that it is rare in a classroom – or in most educational set-ups – for students to have a PC each at their disposal. It usually means that the student who has control of the mouse is most involved while three, four or five classmates sit around and watch, progressively losing interest in the goings-on.

Using Microsoft's recently developed MultiPoint technology, KIKI allows multiple mice to be used on the same PC, ensuring total interactivity by all users. In all the sample applications the team devised for the system, features include teacher and student log-in cards, real-time progress tracking and inter-computer communication.

Microsoft .NET Framework 3.0, Windows Presentation Foundation (WPF), Windows Communication Foundation (WCF), VirtualCard (an adaptation of the cards concept in Windows CardSpace – WCS), Live Search Web Service 1.1, Text to Speech Synthesis, ADO.NET 2.0, SQL Server 2005, Multithreading, and Reflection are KIKI's other underlying technologies and software.

The system envisages a central authority (like the Education Ministry in Malta's case) maintaining a repository to which state commissioned or commercial developers may upload applications and content. The applications may be educational games, animated tutorials, homework exercises, and tools like dictionaries, that would be incorporated in the system and made available for use in classrooms by teachers and students.

A class of 30 pupils at Żurrieq Primary School using eight PCs tested KIKI's applications and demonstrated aptitude and enthusiasm within a few minutes. As the teacher monitored progress on each PC (over which a fluffy toy was hung purely for easy identification of each group of pupils) from her own desktop, pupils had lots of fun using the sample applications.

The children quickly learned to use applications like *ImagineAMooVee* (a tool for educational slideshows), the *MathBalloon Game* (a math game with a party theme that sees users scoring points as they work out exercises by popping balloons), the *Multiples* game with a picturesque island theme, the *Quiz* (a multiple choice format quiz, the content of which can be altered simply by uploading an XML file), the *PaintingProg* .NET 2.0 and 3.0 (a concept similar to the Pictionary game), and *WhiteBoard* (a multipurpose .NET 3.0 application for illustration purposes).

Footage of the first-time trial was incorporated into Kablujen Digerati's 20-minute presentations to two groups of four judges at the Imagine Cup. Microsoft officials and journalists sat in on both occasions. After the presentations, the judges put several questions to the team members about how they would market the product, the system's flexibility and adaptability, its security features, and the work and research involved in its realisation.

The team was also able to demonstrate the system at the Malta booth throughout the week in Seoul, and especially during the Software Design Showcase on the Friday morning, when the international press and judges toured the teams' booths to learn more about the students' concepts. Even though the second round finalists had been announced on Tuesday afternoon (Austria, Jamaica, Greece, China, Korea, Thailand, Russia, Ukraine, Ireland, the Czech Republic, Serbia and the Netherlands went through), any of the 55 teams could still be selected for the Innovation Accelerator programme.

The Korean and Indian media were particularly interested in Kablujen Digerati and KIKI, especially after last May, the team won a special prize for their use of the MultiPoint technology. All four have been offered three-month internships at Microsoft India, where MultiPoint was developed, which they intend to take up after they finish their theses in August next year. Meanwhile, internally, Microsoft has expressed interest in the team's project but corporation officials were reticent on just how interested whenever asked in Seoul.

Now that three team members have returned to Malta, they are back at work at their summer placements. Luana is completing a scholarship in Geneva and will return to Malta in the next few days.

All four intend to complete their studies while working on KIKI's development, especially as Żurrieq primary school is keen to use the system and several local software development companies have been impressed with it. Later, they might even venture into business…

Kablujen Digerati are particularly grateful to the Malta team who participated in the Imagine Cup 2006, and their tutor Dr John Abela for their support and advice. Their participation in the Imagine Cup was backed by the Ministry for IT (MITTI) and Microsoft Malta.

In line with its mission "to help people and businesses realise their full potential", Microsoft established a direct presence in Malta in September 2003 to serve the growing need for closer interaction with the local customer and partner base. Microsoft software is the most widely used software on the island and the objective of the local four-member team, is to ensure that customers and partners reap full value from their investment in Microsoft technology.

The Malta team is also responsible for the local execution of Microsoft's Global Citizenship Initiative, which combines innovative technology, partnerships and programmes to create economic, educational, and social opportunities in local communities worldwide.

A key milestone was the signing of the Vertical Strategic Alliance (VSA) with the government that outlined several joint initiatives in ICT. With education being a key tenet of the VSA, a number of initiatives have been undertaken in this area, including preparing master trainers to train teachers on technology skills, the setting up of two IT academies and the sponsorship of students' participation in the annual Imagine Cup competition.

Under Microsoft's global Unlimited Potential programme, the Malta team has supported the settinh up of eight community learning and technology centres that have trained a thousand people to date, and a Digital Literacy curriculum used by the Employment and Training Corporation (ETC).

ABIGAIL CAUCHI, Jennifer Fenech, Karl Fenech and Luana Micallef fly the flag for Malta as they await the announcement of the Software Design finalists

Taking the young's advice

JOE WILSON: "Students often teach corporations"

EVERY TIME Joe Wilson, Microsoft Corporation's director of academic initiatives, took to the stage in the Sheraton Grande Walkerhill's Vista Hall, where most of the Imagine Cup's key events took place, he was greeted with rapturous applause and a lot of noise. In the lobby, the competition halls and during the farewell party, students, mentors, judges and journalists went out of their way to shake his hand or even hug him.

It's not difficult to see why Mr Wilson, with his shoulder-length hair, embroidered shirts, jeans and leather bracelets, who never speaks from a dais and is visibly uncomfortable in a suit, is adored by everyone. Energetic and affable, he personifies Microsoft's belief in unlocking the talents of the next generation. He joined Microsoft three years ago after several years of being involved in start-up companies, so he is no stranger to enthusiasm. A father of four children aged three to 15, who, he says, teach him "a lot every day", his effervescence also stems from his being constantly surrounded by students.

"Today's generation breathes technology," he told a gathering of the international media on the first day of the Imagine Cup finals. "It is the students who often teach the corporations, rather than the other way round. That is why the Imagine Cup matters."

Surely bringing the best young minds and their ideas to one location is a priceless opportunity for Microsoft's scouts, is one of the more cynical questions Mr Wilson says he is often asked.

"No," he insists from the stage. "There is no sinister story. Microsoft is a major corporation. We have a responsibility to push technology forward. The Imagine Cup is a technology competition for a social cause.

"It is about bringing students together, about the experience it gives them, about the chosen theme. We need more technology in the world, more entrepreneurs, more innovation. This is why the Imagine Cup is necessary, and why every year we strive to make sure it is as fair as possible."

In an exclusive interview with *The Sunday Times*, Mr Wilson insisted that Microsoft had no ownership of the students' ideas. After the competition, the students often continue to work to develop their projects, start again from scratch, or learn from the experience and develop a new venture.

"We encourage the students to build platforms," he said. "We are a platform company. Computer companies hand you a closed box and say 'There's your computer'. Microsoft is like a book – we offer an opportunity. The Imagine Cup is an opportunity for the students.

"They build the tools and we'll show them to the world. The potential is extraordinary. Millions of people will talk about the Imagine Cup every year. The competition has grown by word of mouth; there is no advertising. This year we have exposed 344 students from diverse cultures to a life-changing experience. They will remember it for the rest of their lives."

The Imagine Cup was staged in Barcelona, Sao Paulo, Yokohama and Delhi before Seoul and next year it moves to Paris where the theme will be 'Imagine a world where technology enables a sustainable environment'. How will the competition continue to support this staggering participation?

"We learn to manage the growth of the Imagine Cup, try to come up with a new level of competition, throwing bigger challenges at the students. I don't need more students to compete. I need the brightest to compete.

"Microsoft is a company that takes its social cause very seriously. We think of the future all the time, and we think of creating the right recipe for the soup. Every year we think of what the theme should be. We looked at the Millennium Goals, and one of the issues was the environment. So we asked for the students' opinion.

"We asked them how technology can possibly help conserve or save the environment. They said: 'What are you, stupid? We could put sensors on trees to check if they are being chopped down. We could measure the pollution of the ocean…'

"Health last year was a big theme and the students came up with a variety of solutions. The students were very enthusiastic about the education theme this year. Next year, the environment."

Mr Wilson says it may not seem like it, but the Imagine Cup is actually a small part of Microsoft's academic initiatives. Microsoft is involved in several areas of technology research, programmes aimed at helping students outreach to technology, and the corporation also works to provide schools and students with opportunities in the area.

The MSDN Academic Alliance is Microsoft's complete resource for member schools and universities to have access to the software they need at lower cost. It aims to help educational institutions teach and learn Microsoft developer tools, platforms and servers.

There are various formats aimed at students of diverse disciplines. The Developer Academic Alliance (Developer AA) caters to make the latest Microsoft software available in labs, classrooms and on PCs of students of Science, Technology, Engineering and Mathematics. Similarly, Designer Acadamic Alliance (Designer AA) caters for students of Visualisation, Illustration, Design and Art.

Microsoft also has a 'force' of 2,000 student partners around the world, who help out as volunteers in events like the Imagine Cup as a way of exposing them to technology and meeting people of different cultures.

Besides, the corporation is also in close contact with the best universities and professors across the globe to liaise on research and academic matters.

"Large corporations have the opportunity to do good," Joe Wilson signs off. "It is not hard to do. We are happy to do that to long-term effect."

J.R.