

Krystal: a glimpse into the future of social networking

by Pierre Henri Kuate

Students in the Department of Computer Science were granted the opportunity to participate in the Microsoft® Imagine Cup, a competition for students, and won the Bright Blue Award for the development of a software product, known as Krystal, that was developed as part of their third-year curriculum.



→ The project group that developed Krystal (from the left to right): Abdur Khan, Thome Valentin, Pierre Henri Kuate and Jennifer Claire Brewster.

This project was inspired by the increase in the popularity of social networking sites such as Facebook and Myspace. The idea was to build a user-friendly software environment through which people could interact, learn and share information with each other. The system allows users to form groups, communicate in real time, share photographs, customise their “graffiti wall” and view their personal calendar. The software package even includes a bot game as a programming challenge and a custom-made Internet search engine with an indexer and relevance-ranking feature to find any information on the web.

The program was designed to fully utilise the Silverlight® software development platform to provide a rich, aesthetically pleasing and dynamic experience of usage. Creativity was an important point in the design of the system. Krystal features a window system that allows multiple activities to be performed simultaneously. All the subsystems come with a novel visual design to make them more pleasant and better to use.

As a software system, Krystal follows many design patterns that are taught in the academic software engineering literature. The Silverlight application was designed around the well-known MVC (model-view-control) metapattern in order to separate the external presentation from the internal data model. The underlying server uses the object-relational mapping tool NHibernate to communicate with the system’s database.

Using their creativity and the features of Silverlight, the students were able to provide a unique experience for students to communicate and share information related to their studies.

During the department’s annual Project Day at the end of the academic year, the project group gave a demonstration of their software, and also won a prize from the University.

The students found this to be an interesting experience. They learned much from the intermediate progress presentations made to their lecturers. ➔