



University of East London Bringing Corporate to Life

"The ease of use and the presentation of often complex data in an unambiguous way is a key feature of QlikView"

The University

The University of East London is a modern university located in the heart of Europe's largest regeneration zone. With origins dating back to 1898, the university has a student population of over 28,000. It is one of the largest universities in London, with its main campuses at Docklands and Stratford. With a long tradition of educational innovation and commitment to its local area, the University has an outstanding record in widening access to students from non-traditional backgrounds, as well as an expansive global reach, recruiting students from over 120 countries.

The Challenges

The University developed its first Management Information System in 2001. This application made use of OLAP technology and built a number of cubes (dimensional data models) for specific applications such as enrolment and admissions. The underlying cube data is stored in an Oracle data warehouse, which is refreshed periodically (daily and weekly) with data extracted from our SITS student record system. In the decade since then the data warehouse has grown significantly. As a consequence, the escalating maintenance of corporate data using OLAP has meant that developing new, useful applications has become infrequent.

As a result, the University recognised that it was time to significantly upgrade our business intelligence capability. Ultimately, managers wanted to be provided with access to a much broader range of information than was previously available, allowing us to enhance our strategic planning processes and meet the implementation of our new corporate strategy.



UEL Docklands Campus

The Solution – Simplicity

On the first day Qlikview was installed at the University, the UEL Business Intelligence Team built a prototype student data application without having had any previous Qlikview experience. Over the next month, the BI team integrated student enrolment and applicant data into one application, both of which having previously been separate. For the first time, users had the opportunity to visualise often complex data in an easily understood dashboard format and via Google Maps. As a consequence of the rapid development capabilities of QlikView, the University has been successful in obtaining JISC project funding as part of its BI programme.

The deployment platform chosen by UEL was Qlikview's 64-bit Server, which ensured high performance when working with large data sets. The model is accessed by users in a web browser environment utilising Ajax technology.

Initial deployment focused on key managers who were given a two-hour training session in order to introduce them to the Student Lifecycle application. Key performance data is presented using dashboards, with a separate tab for detailed analytics providing the user the option of drilling down to the lowest level of individual student records. User interaction with Qlikview is by mouse click; users choose the filters they want to select and view the results a split second later.

The Benefits

Qlikview's patented in-memory-based analysis tool has created a revolution in traditional business intelligence. Instead of creating databases for detailed analysis and combing through them using online analytical processing (OLAP), Qlikview loads all the data into the main memory from the start. All calculations and logical links are then carried out in the main memory. This means that new applications can be developed and enhanced very quickly. Users also experience split-second response times for queries and analysis. New questions can be added at any time by adding new dimensions or benchmarks.

The BI Team behind the Qlikview implementation has significant experience of implementing other business intelligence products. Gary Tindell, the BI Project Manager, comments "Given our previous experience of developing an HE management information system, we have found the rapid development and prototyping capabilities of QlikView to be a huge step forward. Complex data can be presented in visually interesting ways, thereby enhancing our analytical capabilities and providing a greater understanding of our current and prospective student population. The flexibility of being able to integrate a wide range of different data into one application has meant that we added significant value to our strategic decision-making processes.

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The Applications

The Student Lifecycle application is the first of three BI applications we are developing as part of our JISC project. The Student Lifecycle application contains data on student applications, enrolments, student characteristics, module registrations and performance, the number and class of awards, student retention, including cohort analysis, and employment outcomes after graduation. Previously, this data would be held in separate applications and would have been more difficult to analyse and interpret. To assist the user in understanding data, we have added metadata which provides a brief description of the data item, the source and the frequency of update. "This new, integrated application has enabled us to gain a greater understanding of student recruitment, particularly in terms of applicant to enrolment conversion rates based on postcodes" says Gary. "As a consequence, we can now intelligently select areas in which to concentrate our recruitment activities."

BME Solutions, a Qlikview partner that specialises in the higher education sector, introduced Qlikview to the University. BME have assisted UEL with Qlikview implementation and support services.

The BI team is currently developing two additional applications as part of the JISC BI programme. Development of a benchmarking application to complement the Student Lifecycle application will enable UEL to compare institutional performance against competitors on a wide range of measures. The final application will concentrate on assessing corporate performance across a range of areas. Although we expect this application to grow organically over time, initially it will display institutional KPIs and monitor progress in delivering the objectives of the University's new corporate strategy. Ultimately, we will expect this application to include data on financial reporting, research grants, staffing profiles, programme costs and a model for undertaking 'what if...' scenario testing.

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Empowering users

Although the University has had a management information capability for the last ten years, we've found that QlikView has provoked users to ask questions they hadn't thought to ask before, and finding answers. As a result of working with QlikView, we are beginning to build a community of knowledge about UEL based around a single version of corporate data. Staff at UEL are becoming more knowledgeable and we are asking them to take ownership of the data and use this to improve the performance of the institution.

Gary says "Qlikview has allowed us to deploy a common BI platform, where a single version of the truth can be shared and accessed communally. It's been relatively easy to combine different data sources from SITS, Agresso, Microsoft Excel and text files in an information-rich, decision-making environment that could reach all levels in the organisation. Being able to integrate a wide range of data into one application has proved hugely beneficial and the rapid development capability has meant that we have already superseded our previous management information capacity.

The future

Based on the success of the Student Data application, UEL has adopted QlikView as their reporting tool of the future, with plans to significantly increase the current user base.



UEL Stratford Campus

SOLUTION SUMMARY

Industry:
Higher education.

Geography:
United Kingdom.

Challenges:

- Provide an analysis tool to unlock the information in the student data system
- Provide an easy, uniform method for users to query and analyse the student data information
- Eliminate reliance on the support service departments to deliver data to users
- Create an accurate repository of student information – single version of the truth
- Empower users to make informed decisions.

Data Source Systems:

- SITS Vision
- Agresso
- Corporate data warehouse
- Spreadsheets.

Solution

- Prototype Qlikview student data application developed in one day
- Qlikview 64-bit server application deployed to 70 users in less than a month
- Intuitive dashboard-style analysis tool which users can query by using nothing but mouse clicks
- Split-second response times when querying multi-dimensional data.

Benefits

- Gained the ability to quickly convert data into information
- Single version of the truth that can be accessed by all users
- Unlike traditional BI tools, changes in underlying dimensions and data structure can be effected in minutes
- Users can fetch data they require for driving the University forward themselves.

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