

CASE STUDY: KATAPILA

KINGSTON ADMINISTRATION & TIMETABLING APPLICATION PROJECT FOR INTEGRATED LEARNER ACCESS

SUMMARY

The Katapila project developed and deployed a web-based timetabling system to manage timetable information relating to courses of study, assessment schedules, examination programmes and other time-bounded resources. The Katapila system is now the institutional tool for assembling and modifying curriculum data at Kingston College and is a key part of their integrated online environment.

THE CHALLENGE

For education providers, timetabling presents a significant challenge requiring the synchronisation of curriculum activities, teaching staff, resources and room locations. This information must be recorded, integrated with appropriate data sources (e.g. student enrolments on classes) and presented to staff and students in meaningful ways. The complex nature of the curriculum means that modelling the temporal components of this process and representing them in convenient formats that are intelligible to users is not straightforward.

THE SOLUTION

Key to this project was the integration of timetabling services with the College's internal curriculum management system, KCOD (Kingston College Online Database). KCOD was developed by the College to support the organisation of the curriculum, electronic registration, student progress monitoring, target setting and reporting. KCOD interfaces with the College's commercial Student Information System (Agresso's QL) to extract learner and class profiles based on recruitment data.

The KATAPILA project developed a versatile and robust mechanism to capture timetable data relating to class activities, to check and maintain its integrity and to present the data to users. The KATAPILA calendar was based on AJAX technology to provide an interactive and graphically-rich user interface to enable teaching staff and curriculum managers to control the relationship between time slots, classes, exams, assessments and rooms. Users are able to select the information they require, filter it according to a series of views (e.g. by class, staff or room) and modify the information through familiar drag and drop methods. The raw XML generated by the timetable engine was reformatted into structured timetable information to allow consumption and presentation by existing systems, providing an integrated experience for learners.

RESULTS AND BENEFITS

The KATAPILA timetabling system has now been adopted across Kingston College and is the central tool for assembling and modifying curriculum schedules. It provides the flexibility and richness of a web-based solution together with a robust integration with institutional data. This system captures timetabling data, enables the better coordination of resources and presents information to users in timely and convenient ways.

LESSONS LEARNED

The emergence of new web technologies, standards and protocols provides a rich development environment for creating web-based solutions to address institutional processes. The demand for such a web-based solution for timetabling and resource scheduling was significant. However, the time spent specifying institutional requirements and precisely defining the issues associated with electronic timetabling was invaluable in producing an appropriate technological solution. This phase cannot be rushed.

New technologies inevitably take time to be embedded into mainstream practice. For successful integration, users need to be convinced that adoption of new web technologies will enhance the experience, not simply adding another layer of work. To achieve this, support from senior management, ongoing awareness raising and provision of training are all vital.

Many of the issues relating to the integration of emergent technologies into mainstream practice are non-technical in nature. This project exposed long-standing strategic, operational and management issues in existing timetabling practice that are now being addressed to improve institutional processes.

The increasing requirements for versatility, efficiency and personalisation in e-administration suggest that adaptable web technologies will play an important role in the information environment of educational institutions. To be effective, this will require integrated web-based tools and services and unified authorisation and access management services, which enable data to be exchanged in standards-compliant ways between disparate systems and platforms.

The adoption of emergent technologies alongside existing enterprise information systems has raised questions of how best to harness the benefits of new web applications within the mainstream information environment of the organisation. These issues continue to be addressed.

FURTHER INFORMATION

Further Katapilla project reports, documentation and outputs are available from:

<http://sites.google.com/a/ga.kingston-college.ac.uk/katapila-etimetabler/>

JISC IRET programme

<http://www.jisc.ac.uk/whatwedo/programmes/emerggetech.aspx>

JISC IRET supporting studies and synthesis project

<http://jisciret.jiscinvolve.org/>

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