

Uniform Gateway to Hybrid Virtual Learning Environment

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1. SUMMARY

Riga Stradins University (RSU) is located at the capital of Latvia in Riga. RSU has 9100 students from that 25% are international students from 50 countries. RSU provide studies in the areas of Health care, social sciences and humanities.

2. BACKGROUND

At the beginning of 2018 the IT infrastructure consisted of Microsoft SharePoint 2010 as a student portal with some e-services, Moodle as virtual learning environment, ExLibris Aleph and Primo as a library systems, Nuance SafeCom as a printing system, and custom made Student Information System based on Microsoft Dynamics CRM and number of narrow purpose IT solutions.

The modern virtual study environment requires gateway, student portal that can be conveniently accessed from desktops, laptops, tablets and mobile devices as outlined in (EDUCAUSE). The gateway should serve different scenarios accessing resource from desktop and from mobile device. For instance, accessing LMS Moodle from desktop gateway should open web browser using single-sign-on leading to particular place in LMS, meanwhile while accessing LMS Moodle from mobile device or tablet should lead to Moodle app. More specifically - using deep links to open the right resource in Moodle app.

The challenge for the university is to provide uniform gateway from mobile, tablet and desktop to hybrid virtual learning environment that is mix of different services from all kinds of vendors.

As a demand came from the Student Union, our project approach was to involve student union in project execution. This resulted in fact that all questions that affect functionality or usability were discussed with student union.

To respond on such initiative we analyzed multiple possible solutions as different alternatives. Alternatives evaluated were:

- A custom made mobile app,
- Purchase stand-alone mobile app to integrate with existing ecosystem,
- Obtain a new student portal together with mobile app.

Evaluation criterions were as follows:

- Functionality and maturity of product,
- Market penetration,
- Options of interoperability with other systems,
- Availability of plugins and applications,
- Modern user interface,
- Options for single sign on,
- Total costs of ownership for five years,
- Support for multilingual content,
- Implementation time to go live,

- Technological and delivery risks.

At the end of evaluation, a decision to achieve the initiative's goal was to go with a bundle consisting of following solutions:

- MyDay from Collabco as a single mobile and desktop app,
- Custom made E-services portal connecting e-services with back-end systems in Riga Stradins University and other institutions, like ISiC and public transportation company,
- Launch mobile apps for existing platforms like Moodle and Panopto.

The project approach was to use Agile, in all aspects of the project execution. In order to maximize stakeholder involvement the ready made software was delivered continuously to stakeholder group on regular basis. The goal of each sprint was to provide some new functionality for particular stakeholder group. We have used different means of communications, including WhatsApp group with student representatives. Student Union was involved throughout the project and all decisions that affect functionality or usability were discussed on regular basis.



3. NEXT STEPS

The new solution is going to be launched on February 12 2019 - five months from signing contracts with suppliers. Students interacting with IT and Communication departments designed the launch campaign. The goal of the campaign is to achieve that 50% of all students visit the new portal. Meanwhile student union will gather feedback that will be used for further evolution of student portal.

Next phase is to collect feedback from students and usage statistics from data warehouse and set objectives for the next project phase. To evaluate usage of the new solution, data warehouse will be extended to include data about usage of student portal, Moodle and e-services. This analytic data will provide insight on application of mobile vs desktop, e-learning environment and other e-services. Detailed analysis will be possible using slice and dice functionality on different student categories.

4. CONCLUSIONS

The decision to implement cloud based student portal that is bundled with mobile app and then extend it with e-services and mobile apps for already used platforms is a fast way to bring new experience for students and respond to the new usability requirements in a very short timeframe. The usage of Agile and delivering of working software frequently helps mitigating risks and allows serving the highest value items first.

5. REFERENCES

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Uldis Donins is Head of Information Systems Unit at Riga Stradins University and trainer which holds a PhD (Dr.sc.ing.) in computer systems. Field of study is software modeling and modeling formalization. Specialties includes software designing, development, and development management; software development process improvements; various Microsoft technologies and platforms, e.g., SharePoint, Dynamics CRM, and Business Intelligence. He is a co-author of "Topological UML Modeling" book.

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