

An Agile Approach to LMS Migration

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ABSTRACT

Principles of the Agile Manifesto may guide academic and technology teams to lead learning management system (LMS) migration projects with inclusiveness, flexibility, and speed. Agile teams follow an iterative, rapid-cycle path to design, develop, evaluate, revise, and improve the LMS from project inception to completion. An agile approach values individuals and interaction, delivering working courses, collaboration, and responsiveness to changing environments. With attention to each of these values in LMS migration, the project runs with full stakeholder engagement, responsiveness, and speed.

Keywords: learning management system, LMS, LMS migration, agile project management, Agile Manifesto

Un método ágil para la migración de SGA

RESUMEN

Los principios del Manifiesto Ágil pueden guiar a los equipos académicos y tecnológicos para liderar proyectos de migración del sistema de gestión del aprendizaje (SGA) con inclusión, flexibilidad y velocidad. Los equipos ágiles siguen una ruta iterativa y de ciclo rápido para diseñar, desarrollar, evaluar, revisar y mejorar el LMS desde el inicio del proyecto hasta su finalización. Un enfoque ágil valora a las personas y la interacción, brindando cursos de trabajo, colaboración y capacidad de respuesta a los entornos cambiantes. Prestando atención a cada uno de estos valores en la migración de LMS, el proyecto se ejecuta con total participación de las partes interesadas, capacidad de respuesta y velocidad.

Palabras clave: sistema de gestión del aprendizaje, SGA, migración SGA, gestión ágil de proyectos, Manifiesto ágil

一项用于学习管理系统迁移的敏捷方法

摘要

敏捷宣言 (Agile Manifesto) 原则能指导学术团队和技术团队以包容、灵活、快速的方式引领学习管理系统 (LMS) 迁移项目。敏捷团队遵循迭代的快速循环路径, 从项目接收到完成的过程中对LMS进行设计、开发、评价、修改和提升。敏捷方法的四个价值分别是个体和互动、工作过程交付、客户合作、响应变化。对LMS迁移中的每个价值加以关注, 项目则能实现利益攸关方完全参与、充分响应、全速运行。

关键词: 学习管理系统, LMS, LMS迁移, 敏捷项目管理, 敏捷宣言

Learning management system (LMS) migration is one of the most complex and labor-intensive initiatives that a university might undertake. For universities with a significant hybrid or online presence, the number of courses that they must migrate from a legacy to a new system may number in the thousands. The designated team must execute the project in a manner that permits students and faculty members to transition smoothly from one system to another without loss of critical data, records, or materials. Meanwhile, faculty members and students interact with difficulty in two different systems until the project is complete.

It is impossible to predict challenges accurately in a one- to two-year migration project, given the diversity of courses, instructional formats, and faculty and student preferences. Inevitably, as soon as courses transition and users make contact within the new system,

teams must adapt their best-laid plans to a new reality. Teams must adapt their processes and designs to emerging requirements and use cases that the new system provides, which are different from the legacy system procedures and habits that develop over many years.

Aligning LMS Migration with the Agile Manifesto

A framework that may be informative in LMS migration is agile project management. The values and principles of the Manifesto for Agile Software Development (<https://agilemanifesto.org/>) provide an agile mindset to projects in software development. With some adaptation, the manifesto applies to other fields, such as instructional technology.

Early Considerations

Agile teams follow an iterative, rapid-cycle path from conception and early

analysis to quick design, development, testing, and implementation with actual users. Then, the users' (e.g., faculty and students) feedback flows back into the process quickly to help design, develop, and test the next version of the interface and model courses. Getting the product in the hands of the users early in the development cycle results in many small pivots along the migration project path, and it also surfaces issues while the project and impacts are small and more easily corrected before scaling up implementation.

Stakeholder Input

Agile teams value individuals and interactions over processes and tools. In the case of LMS migration at a large university, this means putting the technology team in contact early and often with instructional design, faculty, and student groups. They meet not to produce extensive process and tool documentation, but instead to build and test the product and migration process in rapid, iterative steps, with significant input from those who will use the LMS the most. Early and consistent interaction among stakeholders is key to successful migration.

Experiential over Theoretical

Agile teams value working software over comprehensive documentation. The technology and instructional design team builds sample courses and models in close collaboration with the faculty. Those models may be quickly applied to migrating courses in numerous disciplines from the legacy system into the new LMS. Teams iteratively es-

tablish course models, along with documentation of best practices, as learned from experience, rather than a theory of how the migration might work. Hands-on experience in the LMS, with candid feedback and design pivots, is paramount to success.

Collaboration

Agile teams value customer collaboration over contract negotiation. In a university team, collaboration with a diverse group of faculty members, staff, and students is a part of shared governance and is essential for instructional technology success. The team of faculty, staff, and students regularly collaborates on all stages of the LMS migration in a flexible, changeable arrangement. The team needs a basic set of working agreements, rather than a comprehensive migration contract. Throughout the project, teams may need to adjust course migration sequences, quality checks, and publication dates based on data from the stakeholders who are most affected by the system's change.

Flexibility

Agile teams value responding to change over following a plan. An effective LMS migration team makes a plan while recognizing that requirements and feature requests will emerge as the faculty and staff interact with the new LMS. Rather than adhering rigidly to a predetermined project schedule, based on the initial theoretical analysis of users' needs, the team engages with change requests to design, develop, and test new features during migration.

Workflow

In the spirit of agile, an LMS team might follow a workflow, such as the following:

- Establish an initial plan with all stakeholders, publishing clear assumptions of roles, processes, timelines, and workflows.
- Build early prototypes of a few courses with a small group of stakeholders.
- Test prototypes with faculty and students.
- Revise prototypes based on faculty and student feedback.
- Repeat the build-test-revise process with incremental releases on an accelerating schedule of 5, 20, 50, 100, or more courses at a time.
- Document feedback, learning, and adjustments in each increment.
- Recognize errors, adjust processes, update the user experience, and improve courses iteratively until all courses are successfully migrated.

American Public University System used such a process in 2020 to migrate over 1,700 courses in less than 12 months. While there were inevitable challenges and setbacks along the way, each was faced with respect and collaboration among technology teams and academic leadership teams. The agile mindset and iterative process contributed to the successful LMS migration, just as much as the expertise of the people involved in the project did.

Conclusion

By adopting an agile mindset during LMS migration, a lengthy and painful process for students, faculty members, and staff may be less punishing, and completion may be quicker and smoother than legacy project management models provide. While there are many frameworks of agile project management available, the Agile Manifesto provides a set of foundational principles to guide whichever process a university may choose. Such principles guide the team in creating a project plan and assembling a cross-functional team to complete one of the largest instructional technology projects that a university undertakes.

Dr. Michael E. Cottam is Associate Provost of Academic & Faculty Services at American Public University System (APUS). He has been leading, designing, and teaching in the online learning space for more than two decades, focusing his work on using online technologies and interactive multimedia to enhance student engagement, student learning, and student success in the virtual university classroom.

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Previously, Dr. Cottam served as the founding Dean of Instruction for MyCollege Foundation and Portmont College at Mount St. Mary's, Los Angeles (now MSMU Online). The MyCollege Foundation was a Bill and Melinda Gates-funded initiative to extend access to high-quality learning experiences to students who previously did not have access or success in college. He led the design, development, and delivery of new programs of study in a customized LMS built to support at-risk students.

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