

Managed mLearning – mLearning’s Next Evolution

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Research In Motion (RIM) sold over 50,000,000 BlackBerry devices in the past ten years according to an April 2009 article on mobilewack.com. It also states that RIM announced the number of current users surpassed 25 million. Of that, 3.9 million were added in the first quarter of 2009 alone. The article claims BlackBerry is now available in 150 countries from roughly 425 carriers. These statistics are only for BlackBerrys. When all the other Windows mobile, Apple, Palm, and other smartphone devices are added to that number, it seems obvious to those of us in the training industry that there is a very large audience of potential learners who use mobile devices daily.

The mLearning Dilemma

The dilemma for learning professionals has been to find a way to leverage the audience’s familiarity with these devices for training solutions. In an attempt to capitalize on the popularity and portability of mobile devices, early-applications of mLearning have focused on getting the content to the learners, not tracking their interactions, and results.

Today’s mLearning

This is not unusual. When eLearning (or web-based training) was first introduced, the industry quickly produced content and focused little on tracking it. Tracking content interactions was difficult because each Learning Management System (LMS) seemed to have its own approach for cataloging, launching, and tracking eLearning courses. As a result, many of the early eLearning courses were “launch and forget” informational courses that did not require completion tracking in the LMS.

But it didn’t take long before customers and corporate executives were clamoring for a return-on-investment (ROI) from these courses. The industry recognized that untrackable data couldn’t be measured and reported. So, the industry banded together behind standards for eLearning content development and LMS interoperability – AICC and SCORM. These standards allowed eLearning completions and assessments to be tracked and reported. With this statistical data in hand, reports could be produced that demonstrated course effectiveness and ROI. This trackability brought credibility to eLearning as a formal training delivery option.

This is pretty much where mLearning stands today. Again, in the push to embrace this option, the development of content has had higher priority than its trackability. Running content on a mobile device is the easy part. Early adopters of mLearning have effectively put technical specifications, process flows, policy statements and corporate communications on a mobile device to deliver informal, just-in-time information. Similarly, putting audio and video podcasts on the device has proven successful in making training available anytime, anywhere. But currently, it is not possible to track a user’s content completion, bookmarks and assessment results on the

mobile device. Consequently, most mLearning today is focused on informal information that does not require LMS tracking for completion, certification, or compliance.

RPS believes that mLearning will struggle to gain recognition as a viable element of a formal training solution until it can be easily tracked and reported to demonstrate its effectiveness and ROI. For mLearning to reach its full potential, it must evolve to include the ability to measure the same type of user-interaction data that is currently captured for eLearning through the AICC and SCORM standards.

However, this lack of trackability is not the only issue keeping mLearning from reaching its full potential. Today, mLearning lacks overall content management. Current mLearning solutions do not easily manage content access, content sequencing, content distribution and content versioning.

For eLearning, the LMS manages user access to content. Employing user and group permissions, the LMS filters a company's content library so that each user only accesses the content to which they are authorized. This is not true for today's mLearning technologies. Limiting user access to specific content in today's mLearning technologies is a real challenge. iTunes is a good example. iTunes does not restrict user access to a subset of songs based upon their login information. Users are free to search or browse the entire song catalog. Similarly, mLearning podcasting servers don't have role and permission models that manage content access. As a result, audiences can get easily frustrated trying to locate the mLearning "nugget" appropriate for them while wading through a sea of irrelevant content.

With eLearning courses, the LMS also manages the content sequencing by reinforcing prerequisites and learning paths. However, today's mLearning podcasting servers don't typically manage course sequencing. Some "pseudo-sequencing" can be achieved by providing users with instructions regarding the intended content sequence. Sequencing of mLearning content is a manual process that requires users to locate and download the proper nuggets from the podcast server in the proper order. Unfortunately, content sequencing is not systematically managed. Because mLearning solutions today lack a way to track mLearning course completion, there is no automatic way to know that a user is eligible for nugget-2 because they have completed nugget-1.

For today's mLearning, content distribution is also more complicated. Content is placed on the podcasting server and users are typically provided instructions on how to access the server, locate the intended content and download the content onto their device. While this doesn't sound difficult, it gets complicated by the number of applications that users must also load and configure onto their PC before they can even attempt to download content. For audio content, users must install iTunes on their PC. For video-based content, users must also to download and install Blackberry Media Manager onto the PC. These PC-based applications that act as an intermediary between the content on the podcast server and the mobile device are a necessary part of today's mLearning solutions. Desired mLearning content is first downloaded to these PC-based applications and then transferred to the mobile device when the user "plugs in" their mobile device to the PC.

The frustration with mLearning continues once the content is on their device. With most mLearning solutions today, the user must navigate to the Media folder on their device. Just to open the desired mLearning content nugget, the user must find it among all the other media files on their device, including any other content

nuggets, personal photos, and video clips. Current mLearning solutions lack a way to easily “push” assigned content to a user and meaningfully organize it on the device for them.

Content versioning for mLearning is also more complicated. With eLearning, content is hosted on and is launched from a centralized content server. When a course is updated, the new version simply replaces the old version on the content server. This ensures that all subsequent content launches are the most up-to-date. With mLearning, the process is not as simple. Content for mLearning is not centrally hosted and launched. Instead, it is downloaded to and run from each user’s mobile device. When an mLearning course is updated, an email must be sent to each user asking them to delete their outdated version and download the new one. As a result, mLearning content versioning requires significant user interaction and introduces potential user and version confusion.

RPS Managed mLearning – the Next Evolution

All of these complications hinder the full adoption of mLearning in training solutions. For mLearning to reach its full potential, it is clear that mLearning must evolve. By adding content management, automated content distribution, and content interaction tracking, mLearning would evolve to deliver formal learning and not just informal content. RPS will soon introduce the next evolution of mLearning, “Managed mLearning^(sm)”. RPS Managed mLearning is a robust platform specifically designed to manage:

- mLearning user/device profiles
- user groups for targeted mLearning campaigns
- delivery of content specifically formatted for their device
- automated distribution of content to the device
- tracking of content interactions on the device
- the synchronization of results to the LMS to update transcripts
- reporting of mLearning results

The RPS Managed mLearning solution will integrate with most commercial LMS systems allowing mLearning results to be tracked and reported in the LMS. The RPS Managed mLearning applet on each mobile device is the key to making mLearning content trackable and reportable. Our Managed mLearning applet will track a user’s completion status for a content nugget, their bookmarking within that content, and any assessment results related to that content. Then, the applet will synchronize this information “over-the-air” to our Managed mLearning portal. The mLearning portal will periodically communicate this result data back to the enterprise LMS to update the user’s transcript. With this type of trackability in place, mLearning will evolve from delivering informal content to more formal training that requires LMS tracking for completion, certification or compliance.

RPS' Managed mLearning applets are compatible with the majority of current mobile devices on the market. Through the RPS Managed mLearning solution, we manage the content distribution, interactions and results for the following content types:

Type	Description
Announcements	Text messages sent to the Managed mLearning ^(sm) dashboard
Cellcasts	Audio-based content delivered as a cell phone call
Audio Podcast	Audio-based recorded content that is either downloaded to the device or streamed real-time from the podcasting server
Video Podcast	Video-based recorded content that is either downloaded to the device or streamed real-time from the podcasting server
Reference Material	Materials such as PDF files or PowerPoint presentations that are downloaded to the device

Summary

With the proliferation of mobile devices, it is clear that there is a large audience of potential learners familiar with mobile devices. As with any type of training delivery, the challenge is to appropriately match type of content with the type of delivery. Because mLearning today lacks trackability in the LMS, it is relegated to a niche solution appropriate only for informal, just-in-time content that does not require tracking and reporting. Consequently, mLearning continues to struggle as a viable element of a formal training solution because it's difficult to easily demonstrate effectiveness and ROI. This is not a new story. These are the same challenges faced in the early evolution of eLearning. The lessons learned as we matured eLearning delivery should shorten the journey for mLearning. But the road to be traveled is clear. RPS Managed mLearning delivers this much needed management, tracking, and reporting framework to mLearning. RPS Managed mLearning is mLearning's next evolution.

About RPS

RPS is a global leader in training services and outsourcing. With 900 learning professionals serving clients in over 100 countries and nearly 40 languages, RPS improves clients' business performance by redesigning how they train their employees, customers, and partners; implementing new training designs; and managing their training by applying best commercial solutions, processes, and tools. RPS is a unit of Raytheon Company, with 2008 sales of \$23.2 billion. Raytheon has an 87 year history as a technology and innovation leader specializing in defense, homeland security, and other government markets throughout the world. With headquarters in Waltham, Mass., Raytheon employs 73,000 people worldwide.