TIM HILDRETH
Director, Product Marketing,
Skillsoft

PAM BOIROS
Vice President, Product Marketing
Skillsoft® Books24x7®

White Paper | Five Calls to Make When Developing a Mobile Learning Strategy

Executive Summary

With smartphones and tablets becoming more and more commonplace in enterprise environments, the interest in mobile learning is heating up. Many organizations see the promise of mobile learning, but actual implementations are still relatively rare. Will 2012 be the breakthrough year for m-learning? Is now the time to take the plunge into mobile learning or should you wait for a more stable mobile landscape to emerge? It's important for organizations to focus on some basic issues before making this important decision.

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Welcome to the exciting (and confusing) world of mobile learning

Over the past several years there has been a rising drumbeat of interest in mobile learning, or m-learning, from across the corporate landscape. With the advent of exciting new mobile devices, this drumbeat has gotten louder. *Training & Development* magazine listed mobile learning as one of the six trends that will change workplace learning forever.[1] The authors of *The 2020 Workplace* see a time in the not so distant future when the mobile phone will "become" the office and classroom, providing everything from new-hire orientation to on-the-job performance support.[2]

But even as the buzz about mobile continues to grow, actual implementations are still relatively rare. It isn't that learning professionals don't see the promise in using mobile devices to reach dispersed and on-the-go employees; a number of important challenges have prevented many organizations from jumping into the mobile game:

Multiple platforms and shifting standards

Little consolidation of form factors or operating systems combined with rapid device obsolescence has made for a rapidly changing landscape. Knowing which devices, operating systems, and networks will have the longest life has seemed difficult to predict. Recently some favorites have emerged, but there is still substantial turbulence in the mobile market, especially with the advent of various tablet devices.

Rapid obsolescence has hindered widespread adoption of m-learning.

Economics

While it can be taken as a given that the majority of employees in corporate work settings have access to a company-purchased PC or laptop today, the same cannot necessarily be said of smartphones and tablets. For some organizations, the decision to make elearning resources available in mobile form is gated by the availability of devices. Since tablets cannot replace PCs, most organizations are not willing to purchase tablets as well as PCs for the general population, although some have begun deploying tablets to specific audiences such as executives and field sales personnel. And, while more and more end-users have their own device, there is hesitation to rely on the users to supply their own equipment, especially for the security reasons explained below.

Security

This remains a top concern for many organizations and may prove to be a barrier to the adoption of some popular mobile devices. Blackberry® devices in conjunction with the BlackBerry Enterprise Server (BES) by RIM® offer a high level of enterprise control over devices and which network resources can be accessed using them. Many enterprises have standardized on the BlackBerry platform for that reason. Other devices (including the iPhone® and iPad® from Apple®) generally do not currently offer the level of enterprise management and security that IT departments require. Increasingly, organizations are evaluating "bring your own device" (BYOD) strategies, where employees utilize their personal devices such as smartphones and tablets to access enterprise systems. Skillsoft research in this area indicates an equal number of organizations allowing BYOD as those that forbid it.

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[1] *Six Trends That Will Change Workplace Learning Forever by Ketter and Paula, Training & Development Magazine, December 2010.*

[2] *The 2020 Workplace: How Innovative Companies Attract, Develop, and Keep Tomorrow's Employees Today, by Jeanne C. Meister and Karie Willyerd, pg 215.*

Speed

Even simple m-learning content has higher data requirements than phone calls, texting, or SMS messaging. Prior to 2009, there were not enough high-speed carriers to support a distributed learning solution. Recent infrastructure improvements have reduced concerns about speed of transmission to a degree, but it is still a consideration, especially if you are serving global audiences.   Of course, many current generation mobile devices are wi-fi enabled, and with the near ubiquity of wi-fi access available today, provide speed equivalent to that of a standard PC or laptop computer.

With all that being said, there have been some very dramatic changes over the last two years that have made mobile learning a more viable option for many organizations. There have been numerous improvements in the landscape: networks have gotten faster, devices have gotten "smarter," and with the arrival of tablet devices, the form factor/usability of devices has improved dramatically.

The skyrocketing popularity of the iPad and other tablets

The iPhone and other full screen smartphones changed the way users interact with their phones. The larger displays made these devices a more attractive platform for many types of content and were instrumental in moving large numbers of users toward those devices. However, they were still very different from the desktop and far from "roomy" enough for the kinds of content and interactions that are supported there. Tablets change the game completely. With resolutions similar to many laptops, these new devices make it possible to provide much richer content and with sales of these devices are soaring, many learning professionals are now looking at tablets as the natural direction for future (and rapid) growth.[3]

So, is the time right for your organization to take its first steps into mobile learning? The state of the market is still in flux, and there are still many unknowns that make it difficult to create a long term strategy. At the same time, many organizations are eager to get started and begin learning what works. The best path is probably to begin a few well

thought-out experiments while keeping an eye on developments in the market. The trick is to focus on the right areas—and these five questions should help you do that.

1. What does "mobile" mean?

One might assume that mobile learning is learning that is delivered on a mobile phone or tablet. But in discussions with our customers over the years we have found that for many customers, mobility still means "portability." Broadening the discussion to include mobile and portable, there is a diverse range of learning content types (audio, video, short text files, as well as courseware) suitable for use on the different device types:

Laptops

A laptop is an ideal platform for most kinds of elearning, and many employees carry their laptops wherever they go. Increasingly, laptops are equipped with wireless air cards and unlimited data plans enabling fast broadband connectivity from anywhere with a cell signal. Even without an air card, the widespread availability of Wifi (in airports, hotels, restaurants, and now even on some airline flights) means that on-the-go employees are never far from the network. And even when no connectivity exists, elearning courses and other resources can be downloaded to the user's machine and taken offline. Such is the case with Skillsoft courses using the optional Skillsoft Course Manager (SCM).

Media players

The Apple® iPod® and most other MP3/MP4 players don't have the interactivity of smart phones, but they are capable of playing downloadable/portable audio and video programs that learners can consume at their convenience.

e-Readers

Another type of device that has gained a lot of attention is the e-Reader, and Kindle® by Amazon® is the best-known of these. e-Readers offer an attractive form factor for learning content, but like the MP3 players, they aren't designed for extensive interactivity. Most support PDF, Word and other

[3] http://www.ipadlearninglab.com/

file formats, which can be useful for reading and studying primarily text-based learning resources.

So when you are planning your "mobile" strategy, be sure to keep your thinking broad enough to include a number of devices that can support your portability goals. Today, the primary devices most learners and learning leaders wish to use for mobile learning are smartphones and tablets.

Smartphones

The larger displays vs. traditional mobile phones make these devices an attractive platform for many types of contents. Keeping in mind that the mobile learning experience on the smartphone tends to be "interrupt driven" – meaning that the learner might only have a few minutes while waiting in line, or before their next phone call comes in – learning for this device type is ideally short and easy to consume.

Tablets

As discussed above, most tablets offer a large viewing experience and extensive functionality suitable for delivering a longer duration, and more immersive, learning experience.

2. What problem are you trying to solve?

Mobile is only a component of an overall learning strategy. Learning professionals need to give thought to where it is most appropriately applied. One way to approach this is to think about the audiences that are most dependent on mobile devices, such as sales people, executives and field technicians. The needs of these mobile audiences are unique and understanding them will help drive the decisions you make about your m-learning direction.

No matter what audience(s) you decide to focus on, you want to make sure the learning experience you deliver is appropriate for smartphones or tablets. When it comes to smartphones, most companies are staying away from pure

Understand the needs and work-styles of your primary target audience.

formal learning with its requirement for an extended period of attention and in-depth assessment. Small devices, with their cramped (or virtual) keyboards, simply don't lend themselves to high levels of interactivity. And given that on-the-go employees may be in situations where they are likely to be distracted or interrupted as described above, lengthy, immersive learning experiences may not be ideal.

Organizations with phone-centric mobile initiatives are focusing on the following types of learning:

Performance support

Many companies provide formal training when a new employee starts, but the actual moment of need may not arise for months or even longer. So being able to deliver short refreshers or job aids via smartphone can be very helpful to field-based employees. These may take the form of a text document, presentation, or even a short video. Often the learning content relates to a company's products or processes, but another common approach is to provide access to a database of more general information that can be searched at the time of need. Whatever the content, it's important to remember that "short and sweet" beats long and involved.

Reminders and notifications

Some organizations use mobile delivery to remind employees of training that is required (compliance training) or when new training offerings become available that match their interests or job role. You can also send reminders to keep learners on-track when they're involved in a longer term effort, such as preparing for a certification. The text and SMS functionality of most phone models can be leveraged for these types of notifications.

Assessments and surveys

Short assessments and surveys can be a good way to communicate with far-flung employees and maintain a sense of engagement. Data collected through a mobile survey may be

used to understand what situations employees are encountering in the course of their jobs, where skill gaps exist and where new training could be of benefit. Short assessments can be used to understand whether employees have retained information and whether it is being applied on the job.

3. What devices will you support?

While there are signs that the mobile space is maturing, we are still not living in a world where standards prevail. Form factors, operating systems and limitations of various phones and tablets make it difficult or impossible to "build once" and then deliver to many devices. Common file formats that a company may be using for their general elearning (Adobe® Flash®, Java, Java Applets) simply will not work on one or more popular mobile devices. Once you understand the capabilities and limitations of various devices, you are likely to conclude that your mobile program needs to be focused on limited number of devices or even a single device.

If your goal is to deliver true formal learning with assessments, you may want to consider limiting your strategy to tablets. They are much more conducive to delivering a full learning experience and they allow more interactivity. However, many interfaces will still require some amount

of redesign because they were designed to be used with a traditional keyboard and mouse. The touch-screen format of the tablets can be difficult to use in applications where the typeface is small or lines are single-spaced. The new tablet interfaces need to be "finger-friendly."

Security varies from device to device. Work with your IT group to understand restrictions.

To App or not to App – that is the question:

One of the largest debates in the mobile learning space is whether to build an "app" or not. Certain mobile platforms – most notably the Apple iOS ecosystem, including the integrated Apple App Store – tend toward an app-centric view. Some mobile platforms do not support apps at all, relying instead on mobile browser support. Skillsoft's approach, with the goal of offering access to our wide variety of learning assets, to a huge range of global customers with varying needs, has been to **leverage the mobile browser** to provide access to our flagship Skillport and Skillsoft Books24x7 platforms. This approach offers the most flexibility for the highest number of customers' mobile learning initiatives today with an eye toward the future capabilities that mobile learning will enable.

When considering your own mobile initiative, there are numerous pros and cons associated with building platform-specific apps, as outlined below[4].

Leveraging the Mobile Browser

ADVANTAGES	LIMITATIONS
Supports a wide range of devices for general content.	Usually requires a live Internet connection, so access to learning content can be limited or not available at all when the user is not connected.
Offers most of the features that a PC browser would.	Lack of support for "pushing" content directly to the learner
Fast to deploy and update because you build it once.	Browser support for interactivity or rich media varies widely.
Increasingly, web design best practices call for a "mobile first" approach, optimizing the experience for the tablet user, recognizing that this type of design scales up nicely for the PC user. In addition, web sites are increasingly built to be responsive to support a wide range of small-screen mobile devices.	Generally less secure, and offers less control over the content once downloaded.

Building a Native Application

ADVANTAGES	LIMITATIONS
Supports downloading the content for offline consumption.	Requires creating a specific, tailored program for each platform supported. In today's market that may mean building four distinct apps to address the four major mobile operating systems (OSs): Apple iOS, Blackberry, Android, and Microsoft Windows Mobile.
Content can be both pushed to the user, as well as pulled by the user, in response to a search query or browsing.	Once an app is released, there will be a continual development effort required to maintain functionality for each evolving OS.
Can use deeper set of device features and user experience – i.e. location detection features, embedded camera, and finger swipe actions.	Other device-maker constraints can be substantial. In the case of Apple, there is an iTunes/App store dependency, and Apple's approval process.
Can be more secure (i.e. devices can be locked and content can be deleted remotely).	Requires a device for which a native app is even possible. Smartphone models that are pervasive in certain geographies do not support apps.

[4] *Adapted and enhanced using information originally published in: M-Learning: Mobile Learning Is Finally Mainstream – And It Is Bigger Than You Might Think, Bersin & Associates, March 2011.*

Additionally, as discussed previously, you'll need to keep in mind the challenge that is on many IT department's minds these days: will you support only company-sponsored "official" devices, or will you support the emerging BYOD movement and allow users to access content on whatever device – company or personal – they choose. Answering this question will be much easier, if you make call number 4 first...

4. Do you have the necessary organizational support?

Your mobile learning strategy needs to be aligned with overall organizational strategy and informed by a thorough understanding of the company's information technology approach. Most successful programs begin with a strong partnership between the HR/Training group and the IT department. You want to make sure that you understand security and network access guidelines, and you also need to consider the technical support needs your program will create. Your IT department may have already arrived at a conclusion about what devices it will and will not support,

and you should understand these choices and why they were made.

You should also understand what the dynamics are in your organization around providing mobile devices to employees. Some companies want their employees to be "always on" and therefore supply smart phones to virtually all employees. According to a recent iPass Mobile Workforce report, the average mobile worker puts in 240 hours a year more than the general workforce, so the potential benefits to business are clear.[5] Others restrict phones to those audiences who are deemed to have the greatest need. Because not all learners will have access to mobile devices or the desire to use them for learning, it is important to ensure any assets you want to use for mobile learning also be available through whatever systems your learners normally use to access training. At the outset of your planning, it is wise to sit down with senior leaders and understand what their views are on mobile devices, and if they envision a time in the near future when the organizational approach may be changing.

[5] *http://www3.ipass.com/about/mobile-workforce-report/archive/mwr-052411/*

5. How does it fit into your existing learning strategy and ecosystem?

Mobile learning presents an opportunity to improve employee performance, productivity and engagement, but it isn't right for every need. To be successful you need to have an understanding of how m-learning fits within a broader framework, and this will be driven by the maturity of your learning program and systems, your goals and your workforce. Some issues to consider:

Does your organization have a strong learning culture?

Adding m-learning to an already well-established learning program is easier than bolting it on to a program that is still in the nascent stages. If you have only recently introduced online learning or blended learning, it may be confusing to add m-learning to the mix. Do learners know how to log on to your LMS? Is there strong demand for learning? Do you have the staff to support a new program? For more insight into how learning program maturity can be measured, see *The Learning Growth Model: A Blueprint for Integrating learning Into the Life of the Enterprise in Five Manageable Stages* by Dorman Woodall.[6]

Do your systems support m-learning?

Many learning management systems were not designed with the mobile device in mind, but that doesn't mean that you can't integrate your m-learning program with your LMS. If you are planning to use m-learning primarily for performance support, and not formal learning that will need to be tracked, you will have fewer complications. Also remember that many m-learning programs are built around organization-specific content, so you'll want to have a tool for developing mobile learning modules that are in the right format for your targeted devices.

What are the primary goals of your overall learning program?

If your program is largely focused on formal learning, m-learning is probably not a good fit right now. Some organizations are using m-learning to deliver short compliance modules that require tracking, but this is still relatively rare. If your learning program has advanced to the stage where you offer a rich mix of learning modalities for a variety of formal and informal needs, then m-learning can become a natural part of the mix.

Is your workforce a good fit for mobile?

The majority of adults have a cell phone, and while some see it as a gateway to the world's information resources while others simply see it as a phone. Millennials are generally assumed to be most at home with mobile devices, while more mature audiences may not be as adept in using mobile devices (especially with their eye-straining screens and small keyboards). You may want to look specifically at segments of your workforce that are more mobile in their jobs, and focus specifically on their readiness/willingness to accept m-learning.

Skillsoft's mobile learning strategy

Skillsoft has been focused on providing performance support solutions, primarily through the Skillsoft Books24x7 product line for a number of years. Skillsoft Books24x7 On the Go™ is a mobile website providing complete access to all Skillsoft Books24x7 collections and optimized for viewing on BlackBerry, iPhone, Android, and virtually any mobile device with internet capability. The major functionality of the Books24x7 site is preserved with complete search, browse and navigation capabilities as well as PDF and MP3 options for offline reading and listening, and downloadable MP4 video files for video-centric collections. All personal and corporate folders are accessible, creating a fully integrated experience when you are away from your PC. Additionally Skillsoft Books24x7 offers support for many ebook readers via downloads, and full support for tablets via the native Skillsoft Books24x7 website.

While this is an attractive solution for many customers, there has been demand from others who are looking to move

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[6] http://www.skillsoft.com/infocenter/whitepapers/documents/LearningGrowth_Paper.pdf

ahead with more extensive mobile learning initiatives covering courseware and other learning modalities. To support our customers growing interesting in mobile, Skillsoft is introducing expanded mobile support for Skillport, Skillsoft authoring tools, and additional mobile content types.

- Mobile access to Skillport functionality so that learners can search for content, and take it on the go (either via Search or in MyPlan), tied into core Skillport so that this content could be assigned, managed, and tracked just like any other piece of Skillsoft or customer content and so that it would also be available via Skillport on the desktop,

- Access via the new mobile interface to appropriate mobile content including Skillsoft Books24x7, the Skillsoft® Leadership Development Channel™ and other video-based titles, and SkillBriefs.

- Custom content authoring support via Skillsoft® Dialogue™ Design and SkillStudio®.

- Skillsoft business skills courses and new video learning assets for on-the-go learners.

Mobile browser-based

Skillsoft's global customer base demands the most flexibility to support the greatest number of devices (BlackBerry, iPhone, Android, and other emerging mobile OS's). By leveraging native browser support on mobile devices (vs. mobile Apps), Skillsoft can more quickly provide solutions on these new devices, without having to rely on device-specific deployment channels.

Tablets

With such significant growth potential for tablets, we are focused on solutions that allow us to quickly support courseware on these larger devices rather than targeting smartphones specifically. Tablets offer a much more natural landscape for the kinds of richer interactions that learners are looking for in their training content today. We want to make sure we are poised to leverage that larger real estate and to help our customers to do so as well.

Skillport mobile support

Skillport 7.3 offers users a streamlined mobile view into Skillport end-user functionality on smart phones and tablet devices. Learners will be able to access their development plans, view their learning history, and search for and launch mobile-ready content including Skillsoft books, videos, SkillBriefs, and any supported custom or library content (see below).

Later in 2012, Skillsoft will release Skillport 8 which was designed from the ground up with mobile in mind. Skillport 8 will offer users the same engaging learning experience on tablets as on the desktop with full support for all end-user facing Skillport features including catalog browse and integrated support for the Skillport community features.

Skillsoft content for mobile devices

During the second half of 2012, Skillsoft will release over 500 tablet-compatible, US English, business skills courses for use on tablets via the new mobile Skillport. Designed as updates to Skillsoft's existing business skills courses, enabling tablet support will not require any effort on the customer's part, and all existing assignments and progress tracking will be maintained. Once these courses are released, users on Skillport (7.3 or higher) will be able to locate these courses and launch them on supported tablet devices, or continue to

Tablets are gaining ground as they provide an ideal form factor for many kinds of elearning.

take them on the desktop as all user tracking and progress information is synchronized between the two platforms.

In Q3 2012, Skillsoft will also begin introducing its new desktop and IT performance support video collection providing best practices and how-to information for both today's popular office applications and emerging IT topics. These subject-matter expert (SME) led, short videos will be available on phones, tablets, and the desktop to allow learners to get help where and when they need it, on the device of their choosing.

While support for other content types is not yet confirmed, Skillsoft recognizes the growing mobile learning potential and is committed to increasing mobile access to the Skillsoft library in the future.

Authoring solutions to support mobile

Skillsoft knows that some of the most powerful content customers use is custom content developed around specific company initiatives and solutions. Based on early feedback from customers, we know that this will remain true as learning goes mobile. In order to support customer's mobile customer learning needs, Skillsoft is updating both the Dialogue Design and SkillStudio authoring tools to allow customers to create mobile-ready learning content for deployment via SkillPort 7.3 and higher.

- With Dialogue Design 6.0 (released September) content designers and subject matter experts alike can easily assemble existing materials into mobile-ready courses for smart phones and tablets, in addition to the standard desktop support.

- SkillStudio (releases September) will allow courseware designers to build tablet- and desktop-compatible courses using the full range of page styles and features as standard Skillsoft library course.

In early 2013, Skillsoft plans to extend the content and authoring support for third-party learning management systems.[7]

Summary

The evolution of the mobile market will play a key role in whether you decide to move forward with building content geared specifically around a single device (such as the iPad) or if you want to take a more flexible approach. The devices you support maybe largely dictated by your organization's IT decisions, including whether they will purchase tablet devices for employees, or their level of support for BYOD. Today the trick for content providers and consumers is to "future-proof" their m-learning strategy— which means including options for new developments and devices in the rapidly changing mobile market.

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[7] *Requires a mobile compatible learning management system.*