



CERTPOINT White Paper 5: Mobile Learning

How smart phones give learners control, and learning context

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Executive Summary

Mobile learning is a valuable new addition to organizational learning strategy. Implemented correctly, it provides an excellent way of spreading knowledge rapidly across an enterprise, ensuring for example that new corporate initiatives are understood or that new product knowledge is quickly available to mobile field engineers and sales people.

The power of modern smart phones, however, also means that as well as learners receiving content pushed out to them, they can use web 2.0 technologies to find the help that they need at a particular moment – for example by accessing a wiki, a blog or a social network.

This combination of delivering both traditional elearning courses and just-in-time help in context makes mobile learning different from traditional desk-based elearning. Mobile learning is more than just a smaller version of elearning courses designed for the desktop, it is a performance support tool and this makes it a valuable supplement to current learning programs not only for employees on the go, but for potentially everyone.

Learning in this manner has been dubbed mobile learning 2.0, a term reflecting developments in the field in recent years. Even a few years ago, mobile learning was a complex activity, a fact recognized by both analysts and practitioners. Now, however, it is possible for mobile learning to be implemented effectively, and quickly, provided that the right approach is taken.

The right approach means putting the business need for the learning first, and reducing any administrative overhead during implementation. For example, in creating content designed for mobile learning it is crucial to use an integrated approach, so that the content sits in a system alongside materials produced for desktop courses. In a fully integrated system learning materials would be stored centrally for output on a variety of media, including not only computers and smart phones, but also MP3 players and other devices. Alongside this flexibility of output, the mobile content must be 'future proof' for learners. It is impossible to say what smart devices they might be using in the future, and so the content must not be tied to one platform, but be usable on a range of mobile devices and operating systems.

Mobile learning is now living up to its promise. Implementing it well is not a complex task, provided it is done with some key principles in mind, and using the right technologies.

Mobile learning *The rise of the smart phone*

This CERTPOINT Systems white paper looks at the use of smart, portable devices to support mobile learning. While learning on the move can be done with a book, an iPod, a laptop or indeed a conversation, this paper focuses on learning with technologies that can be used while the user is actually moving, and in particular it focuses on the use of the smart phone.

Smart phones are mobile phones that include functionality commonly found in computers. In particular they include the ability to browse and interact with the internet, to listen to audio files and to watch video files. The most well-known of these devices is the iPhone, which according to industry analysts Canalis accounted for some 17% of worldwide shipments of smart phones in Q3 2008. Market leader Nokia had a near 40% share.

Mobile learning 1.0 or 2.0?

It might seem as if we have been here before. After all, mobile learning is something that has been seriously discussed for the past 10 years. A unique combination of factors, however, means that mobile learning has finally become a practical pursuit, causing leading commentators such as Brandon Hall's Director of Research and Analysis Dr Gary Woodill to call this new phase 'Mobile Learning 2.0', a term first coined by the head of the Centre for Performance and Learning Technologies, Jane Hart.

Another commentator who has witnessed this shift is Dr Ellen Wagner, Principal Analyst for Sage Road Solutions. A Ph.D. in learning psychology and Adobe's former senior director of worldwide eLearning, in May 2005 Dr Wagner had an article published in EDUCAUSE Review entitled Enabling Mobile Learning.

Her enthusiasm for this new medium was matched many others who believed that 2005 would be the year mobile learning took off. It was not. Reflecting on this in July 2009, Dr Wagner wrote mLearning at the Tipping Point, in which she examined why the time is now right for mobile learning, when it hadn't been four years earlier:

The biggest reason ... was that we completely "mis-underestimated" the complexity of the infrastructure - and organizational change and IT support required -for enterprise mobility to be achieved. Also the need for many early adopters to craft their own, "gerry-rigged" solutions

However, says Dr Wagner, these stumbling blocks have now been overcome. As she puts it:

... we seem to have reached a tipping point for mobile learning. After years of watching and waiting and poking and pushing, the market variables that needed to be in play to push mobile learning over the top of mainstream awareness and adoption seem to have finally converged.

What has changed to bring mobile learning this tipping point?

Mobile learning reaches the tipping point

Two key factors lie behind mobile learning's new practicability: the technology has improved immeasurably and individuals' approach towards it has changed.

Improved functionality of mobile learning technology

The sheer power of today's smart phones far exceeds anything that was affordably available in the past. Touch screens, colour displays, remote server synchronization, internet browsing, Wi-Fi access and great processing power were all available separately previously, but are now combined in devices that are affordable, making mobile learning a cost-effective proposition.

Device ubiquity

Close to 160 million smart phones shipped globally in 2008, a 30% increase on the previous year, according to the Wall Street Journal. Significantly, world-wide sales of smart phones have outstripped laptops every year since 2005, indicating that people are increasingly seeing the smart phone as an alternative to a portable computer. The sheer quantity of smart phones in circulation now makes quality mobile learning a real possibility.

Learning technologies

As Dr Wagner noted, in 2005 mobile learning solutions had to be "gerry-rigged" individually and making them available organization-wide was a complex task. No longer. Now the learning technologies exist to produce learning content for a smart phone as part of a regular enterprise learning solution.

Mobile learning and people

Sophisticated users

As internet browsing on phones becomes increasingly common, so phone users have become increasingly sophisticated in how they use these devices - commonly using them for web 2.0 technologies such as social networking, wikis and blogs. The result: smart phone users are already using their devices to learn (albeit informally, and not usually for work).

Changing business demand

The nature of learning for work has changed over the past few years. In the past, learning was synonymous with formal training. Today managers who might once have asked for a course (classroom or online) for an employee are more likely to ask for the right skills and knowledge - regardless of how these are developed. There has been a shift from a demand for 'just in case' training to 'just in time' performance support.

Smarter L&D

Finally, over the past few years Learning and Development (L&D) professionals have come to understand the importance of informal learning, and especially of learning in context. For some learning needs a classroom course is right. For others, though, context and on-the-job experience are essential. In these cases, L&D professionals recognize the value of using the new web 2.0 tools to support learning. (For more on this, see the CERTPOINT Systems white paper Are you ready for learning with web 2.0?)

In summary, there are now more, better phones available than ever before, and many of their users have a sophisticated understanding of what they can do with these devices. Managerial demand for skills development continues and the current recession has increased the focus of development ever more acutely on performance, and on learning in context rather than in the classroom. Today's L&D professionals understand this and now have the tools to respond to this challenge in a cost-effective way. The result: mobile learning's time has come.

More than just a pocket-sized e-Learning course

Learning using a mobile phone is certainly electronic learning, but it need not be learning in the widely accepted sense of traditional 'e-Learning': a course delivered to a desktop and tracked from a central server. This is certainly part of what can be delivered via a smart phone but mobile learning goes beyond this type of 'push' learning. Because the device is always with the learner, the nature of how learning occurs is different; it supplements the course-based approach:

Course-based e-Learning is ...	Mobile learning is also ...
Formal – students go through a course from start to finish	Informal – learners regularly use their phone for web 2.0 tasks such as accessing blogs and wikis. Used properly, this can be directed to valuable resources to support learning
Student/Teacher – the e-Learning delegate behaves as a student, consuming the course	Interactive – the emphasis in mobile learning is on the learner as an active agent, performing in the workplace, helped by their learning
Push – courses are pushed out to students	Pull – learners pull down the learning that best suits their needs
Desk-based – learning happens when the student is as at their desk	Everywhere – learning happens where and when it is needed
Just in case – learning is focused on building background knowledge and skills through a course	Just in time – learning takes place in the context of need, and often at the point of need. The focus shifts to performance support
Location independent – the same learning is delivered regardless of the learners' location	Location-aware – using GPS technology, it is possible to make learning tools and content relevant to the users' location

Making mobile learning successful

In a far-sighted presentation made in 2006, Jane Hart (then Jane Knight) of the Centre for Performance and Learning Technologies, pointed out that mobile learning is most successful when the mobile devices used are already in place and in use, and where there is clear benefit to learning mobility (e.g. with a mobile workforce such as a mobile sales force). She predicted – correctly – that smart phone users would increasingly use their devices to learn through web 2.0 technologies, and that this would be part of a new growth in mobile learning.

Ms Hart's predicted increased use of smart mobile devices for more than just telephony has happened. Making a success of mobile learning is now possible given two conditions: the implementation should be driven by a business imperative, and administration should be kept to a minimum.

Technology should follow, not lead

Although mobile learning is only made possible through the availability of smart devices, the technology must play a secondary role to the learning, and in particular to the business need for learning. In other words, before attempting to introduce mobile learning in your organization, make sure that you have a clear business case for it.

Typical business cases for introducing mobile learning include:

- **Faster product knowledge for a travelling sales force**
- **Cost savings of switching from laptops to phones**
- **Making best use of reduced training and travel budgets**

The good news is that unlike in 2006, when sufficiently powerful devices were highly expensive, smart phones have fallen in price and risen in processing power to the point where they are viable alternatives to laptops for many people – especially those using their laptops mostly to access e-mail and the internet. It should not be difficult to make the business case for investing in these devices.

Investment in a new set of smart phones, however, may not be necessary. When introducing mobile learning technology, as with any behavioural change, your implementation should involve as little change as possible. If individuals already have an adequate mobile phone, aim to work with what they have rather than force them to use a new one. The fewer changes required of learners, the greater the chances of enthusiastic adoption.

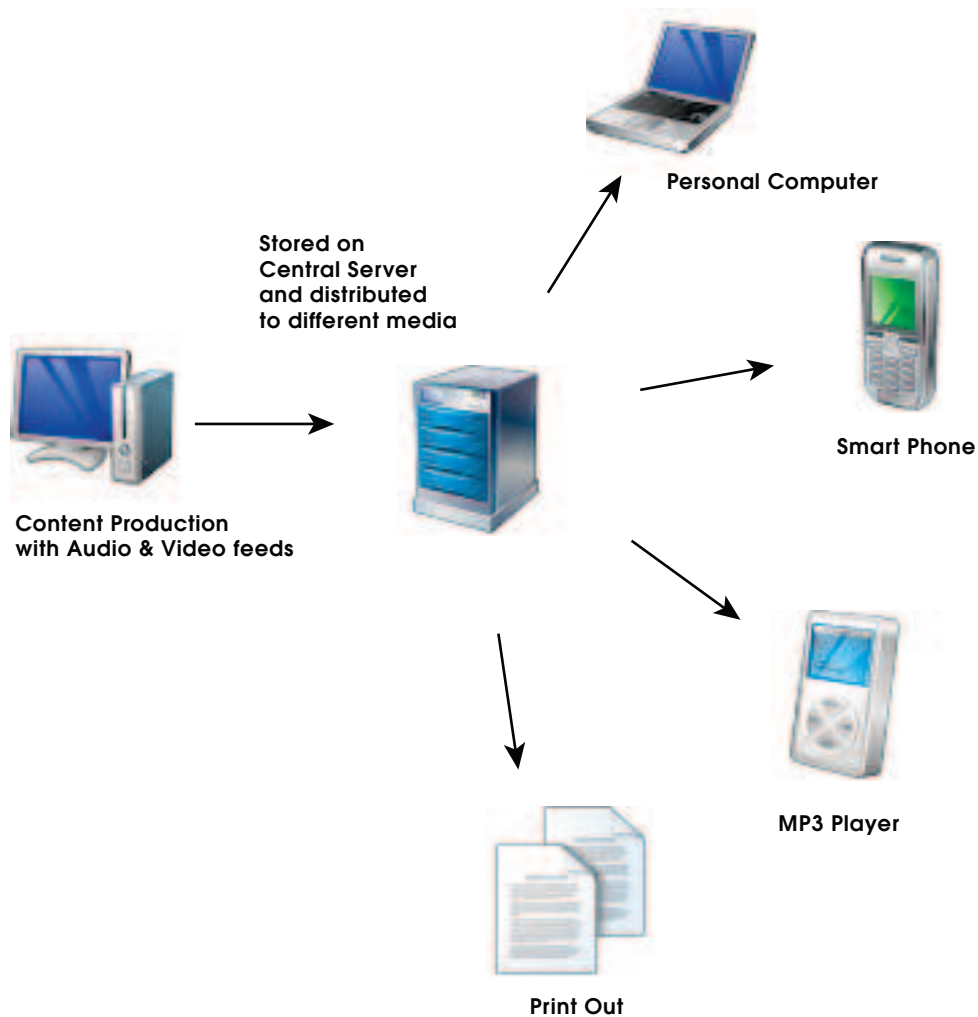
Administration must be minimized

As noted at the beginning of this paper, Dr Ellen Wagner indicated that in 2005 it was only possible to produce mobile learning through a combination of 'gerry-rigged' systems – a hotchpotch of different systems cobbled together for content production and then delivery. In fact, Dr Wagner pointed out, this task was so complex that it prevented mobile learning taking off.

Fortunately the systems now exist that make it possible to implement mobile learning with a minimum of complexity and administrative overhead. In particular, they enable two important things: effective content creation and distribution and smart reporting on activity.

Smart content creation and distribution

For all content authored by the Learning and Development department it makes sense to create it in a way that means it can be re-used as easily as possible. Where possible, content should be held in one place and distributed widely, over a variety of media, and this is a true for mobile learning content as for anything else:



Keeping content production streamlined in this way enables you to remain focused on the business impact of what you are doing and the quality of the learning experience, rather than on re-writing materials for each of the different media in use. It is the most effective way of producing content, but it relies on having the right systems in place. As the production of learning content is one of the major tasks of the L&D department, it makes sense to do this as efficiently as possible. Ensure that the system you use has templates that enabling content to be created for both mobile and desktop distribution.

Smart reporting

You will want to track usage of your learning content, and doubtless other managers and budget holders will expect to know that your mobile learning initiative is succeeding. In your reporting, ensure two things. First, while you can and should track mobile usage of learning content through your system, make it clear that mobile learning is only one part of your overall learning mix.

Second, ensure that all reporting relates back to the original business need so that you are not just reporting on the number of times a mobile learning resource has been accessed, but also showing that the original business need (e.g. cost reduction, faster performance support) it being met.

The right system will enable you to do this, and to do it in a way that does not require a great deal of extra administration.

CERTPOINT Systems and Mobile Learning

CERTPOINT Systems offers mobile learning as an additional module to its fully-integrated enterprise learning platform, **CERTPOINTVLS™**

Because it is a fully-integrated platform, mobile learning materials sit alongside other learning content in the CERTPOINTVLS. This allows L&D professionals to leverage the system's LCMS functionality to support mobile learning in smart content creation and distribution. The mobile learning module:

- Delivers and tracks learning content and assessments to smart phones
- Offers structured learning (courses)
- Offers unstructured learning (wikis, blogs, file libraries, etc)
- Delivers videos and podcasts to devices
- Provides full management capabilities such as notifications and reporting
- Enables both individual and community-based learning

The **CERTPOINTVLS™** includes a local Device Inspector, which assesses the nature of the learner's device, presents the appropriate login page, and ensures that materials appropriate for that device are presented from the server.

Mobile devices & CERTPOINTVLS™

The way learning materials are rendered is not the same for all users. Within one installation it is possible to produce them in different ways for different sets of users – for example those in different geographies or different departments:



While the iPhone is the most well-known smart phone, CERTPOINT Systems recognizes that mobile learners may have a variety of devices, and supports all the most common devices and operating systems, including:

- Apple
- Nokia
- Google Android
- Blackberry
- Palm
- Window Mobile

Is Mobile learning for everyone?

For some learners, mobile learning is a perfect fit. Employees such as sales road warriors and field engineers are typical – they are often on the move and do not always find it convenient to power up their laptop for quick access to the internet and learning materials. Today, such employees very often already have a smart phone as their constant companion, and asking them to add mobile learning to it is a minor change for a major benefit.

Although such users are often seen as the poster children of mobile learning, it remains a useful additional learning medium for almost everyone else. It supplements the more formal learning they are already doing either in the classroom or through e-learning at their desktop. Provided that you produce and distribute the learning content and resources effectively, and with minimal administrative overhead, mobile learning today is finally powerful enough to be an excellent resource for everyone.

About CERTPOINT Systems Inc

CERTPOINT Systems provides an all-in-one software suite to manage talent, deliver knowledge, and track business results. Global leaders like Toyota, Honda, and Black & Decker use CERTPOINT's technology to arm their employees and partners with the knowledge they need to win and retain customers. Founded in 1996, CERTPOINT Systems is used by more than 1,000 businesses in over 35 countries and languages to deliver knowledge beyond the organisation deep into sales and service channels.

CERTPOINTVLS™ is a global learning technology solution that puts talent and knowledge to work throughout the organization and extended enterprise to increase and measure performance on the job for stronger business results. The suite integrates Learning Management (LMS), Content Management, Competency Management and Web 2.0 Collaboration into a seamless learning system for creating, managing, delivering and tracking all online learning activities.

Please visit www.certpointsystems.com

The CERTPOINT 2009 White Paper Series

CERTPOINT Systems' 2009 white paper series is entitled The Effective L&D Manager. Titles published to date include:

Are You Ready For Learning With Web 2.0?

Five Steps to Make Learning a Success in 2009

Integrated Learning

Six Steps to Learner Engagement

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