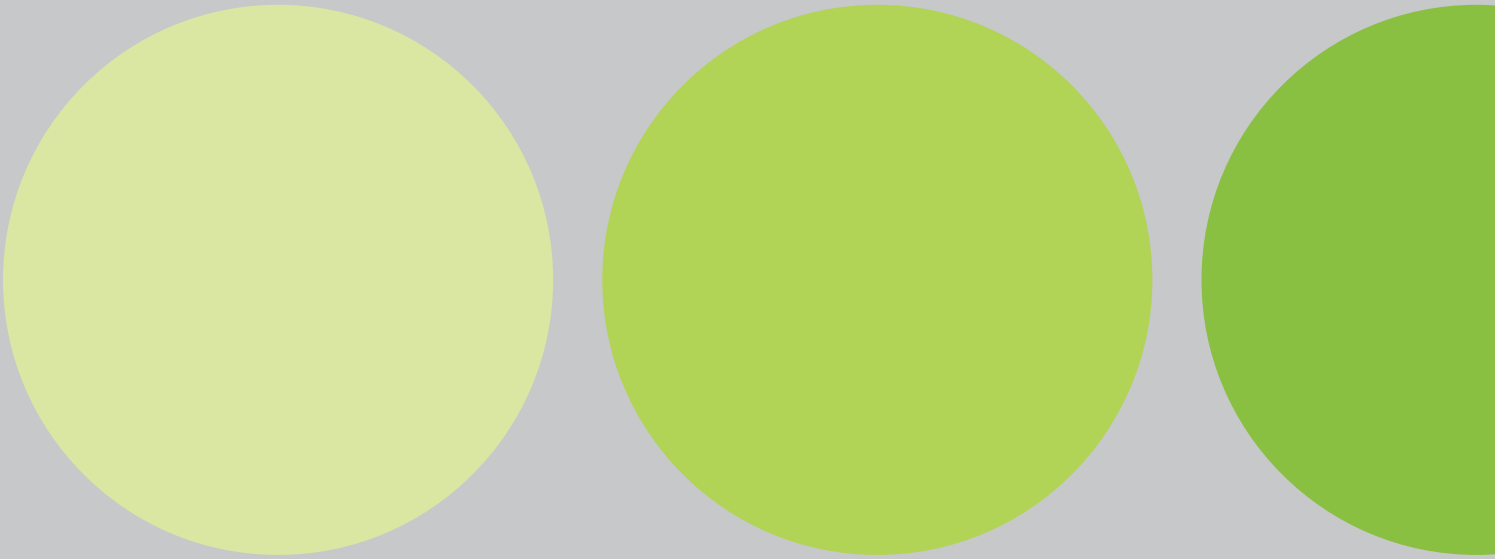

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Implementing Mobile Learning

5 key steps to make the right strategic decisions

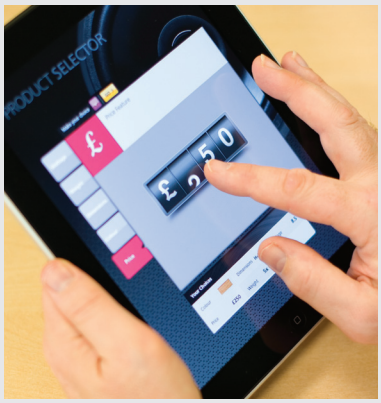
Implementing Mobile Learning
5 key steps to make the right strategic decisions

Introduction

Let's start with a warning.

Everything is changing very fast in the world of mobile learning and a lot has not yet been nailed down.
So, by the time you have read this (written in early 2012), things will have inevitably moved on. The technology is **constantly changing** with the latest competitive device coming out at regular intervals. There is an unfortunate truth out there; the mobile technology companies don't worry too much about the impact on the e-learning world when they bring out their next product. So, we will always be in a position of catch up. Indeed, the one delivery format that most agree is the best way ahead for mobile learning, **HTML5**, is only due to be finally specified by **January 2014**.

This is a dilemma for anyone responsible for implementing any learning solutions that may have mobile learning within the blend. **These are the key questions that everyone is facing today:**



- **Can you make firm decisions while the technology (and the industry formats) continue to evolve?**
- **What tools can you trust to use to build your mobile learning solutions (with so many of them emerging in the near future)?**
- **How are you going to get your mobile learning out to your audience (with the very different platforms out there)?**

One thing is sure, you can't sit on your hands on this, however tempting that might be.

Mobile learning is increasingly on everyone's agenda. Not a standalone solution but as useful part of increasingly rich and complex blends. It may be a small percentage of your overall learning offer but it could be a very valuable and engaging addition. This means that you need to have a **strategy for mobile learning** now and not later.

This guide (the second of a three-part series) is a simple **decision-making guide** to help you ask the right questions and decide what kind of mobile learning solutions you'll be able to run in your organization and how you could build and deliver it all.

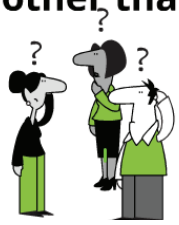
Our final guide in the series, **Building Mobile Learning**, will look in more detail at the way you can build and deliver mobile learning, from using tools to custom programming. So, don't worry if you are not of a technical persuasion, the aim in this guide is to keep this as simple and straightforward as possible.
Let's get going with the first key question you need to ask....

Step 1 – Check out if mobile technology is the only technology medium for your target audience

In the first part of this series, we looked at the different mobile learning devices out there.
They are generally **tablets** and **smartphones.**

So, here's a first key question to ask yourself:

Do your learners have any other means of looking at online learning content, other than a mobile device?



This is an important question to ask as it makes your choices more straightforward.

Easy choice, you have to use mobile learning.

- Which devices will learners be using?
- What's the best way of building your content?
- How will you distribute the learning?

So, if your learners almost entirely use mobile technologies as their prime device to get information and carry out their job, you have to find a way of using that technology for their learning.

A good example of this is the situation with two of our current clients (one in the Telecoms world and the other in Pharmaceuticals) whose salesforces have all been issued with iPads.

For both of them, we just needed to work out the best way of building and distributing the content. There was no debate about what technology we would use. It had to be mobile learning not desktop or laptop-based learning.

Do your learners have any other means of looking at online learning content, other than a mobile device?

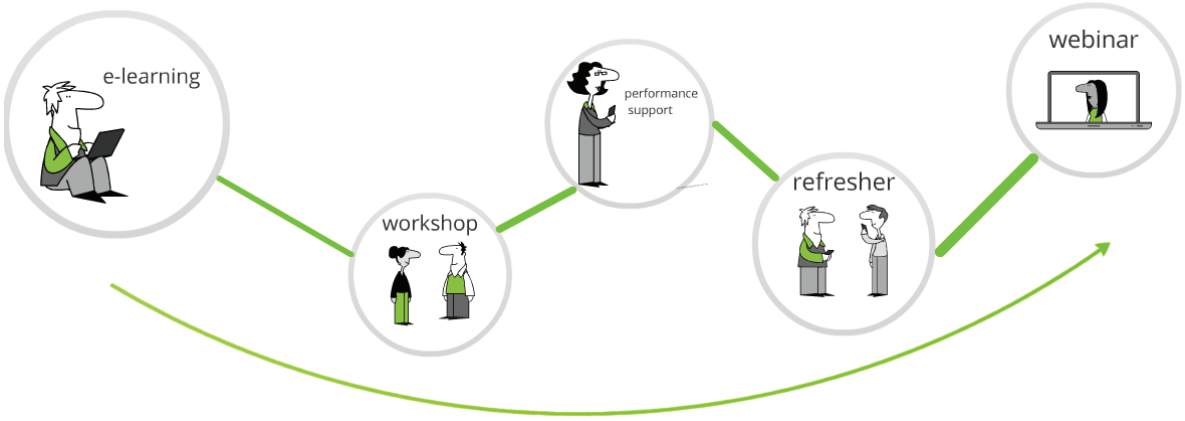
If, however, you have more choices, you have to work out what elements of the learning will be best done via mobile technologies and what should be delivered by other approaches. This leads us nicely to the next step in the process, working out how mobile sits in the overall solution:

Step 2 – Work out what where mobile technology fits into the overall blend

You just need to follow your usual process for determining a blend. The key is to decide where mobile technologies offer unique value.

In some situations, it could completely replace traditional e-learning elements but you have to work out exactly what you will lose by using the different medium. This is especially the case if your medium is a smartphone, with its much smaller screen size.

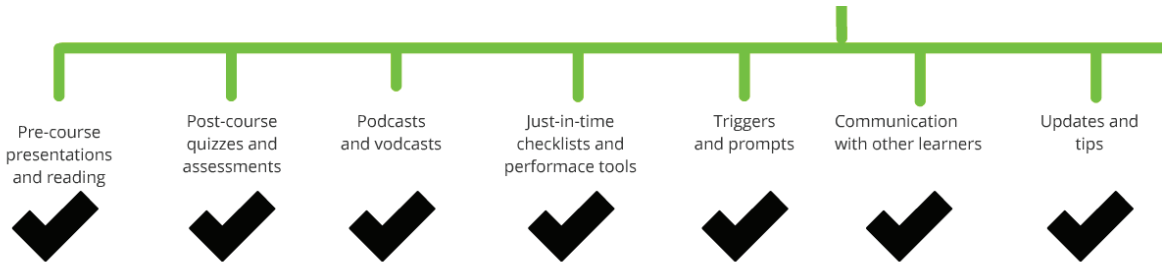
A typical blended solution with mobile learning could look like this:

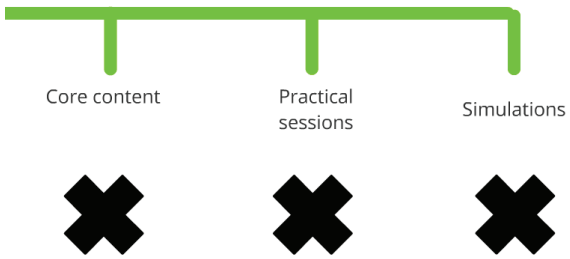


We covered this in the first guide (Designing Mobile Learning), but, as a general rule, here are the areas in which mobile technologies can be very valuable and here are the other areas where alternative approaches could be better applied:

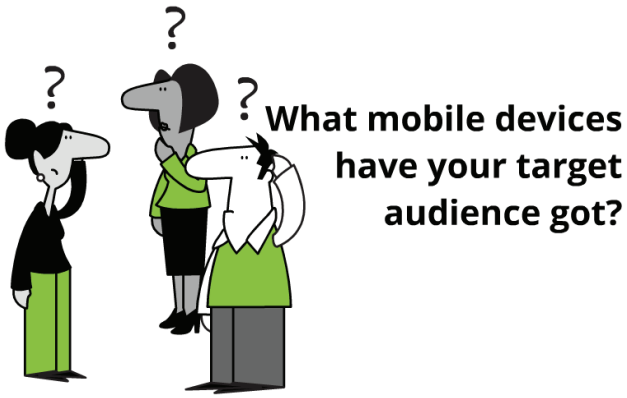
What are the learning needs?

Which of those topics would be best covered on a mobile device?



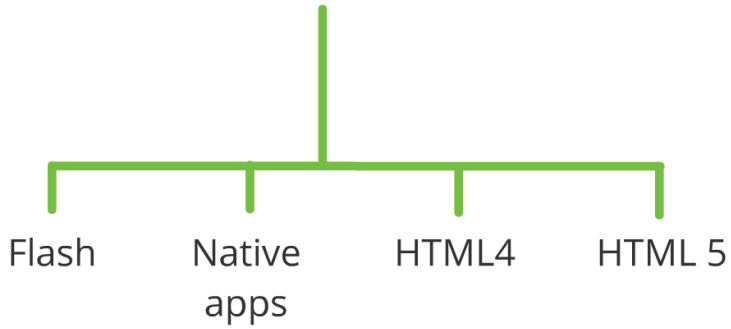


Step 3 – Work out what mobile technology you are going to have to use to deliver your mobile learning solutions



A common problem you'll face is having a target audience who use very different forms of mobile technology. Each device potentially supports a different format of online output.

Before we look at the differences, let's look at four main e-learning formats that you could use within a blended solution:



Flash has been the standard output for the e-learning industry for many years now but it does not run within the iOS environment that you get on iPads and iPhones. Instead, most mobile apps have been built as Native Apps, custom coded to run on the particular platform being used (be it a tablet or smartphone). These **Native Apps** are not being run via the mobile device's browser (though some data may be downloaded within the app).

If you want your mobile learning module to work as a **web app,** you need to build it in **HTML.**

HTML4 has been around for some time now and can deliver simple content presentation with basic interactions. It does not handle audio or video at all. The significant upgrade to HTML4 has been **HTML5** which supports audio and video and so has been central to the greater use of video especially in mobile learning apps. We look at what we actually mean by HTML5 in our third, more technical guide but essentially it is really an umbrella term for ongoing specifications being guided by, among others, the World Wide Web Consortium (W3C). The most important thing to remember it is still in the draft stage, but it is undoubtedly a step up from HTML4 and, although it delivers less functionality than Flash, it can be used to produce effective learning apps. Just don't expect to the same things you used to do with Flash.

So, these are the types of outputs, each with varying levels of interactivity and media quality:

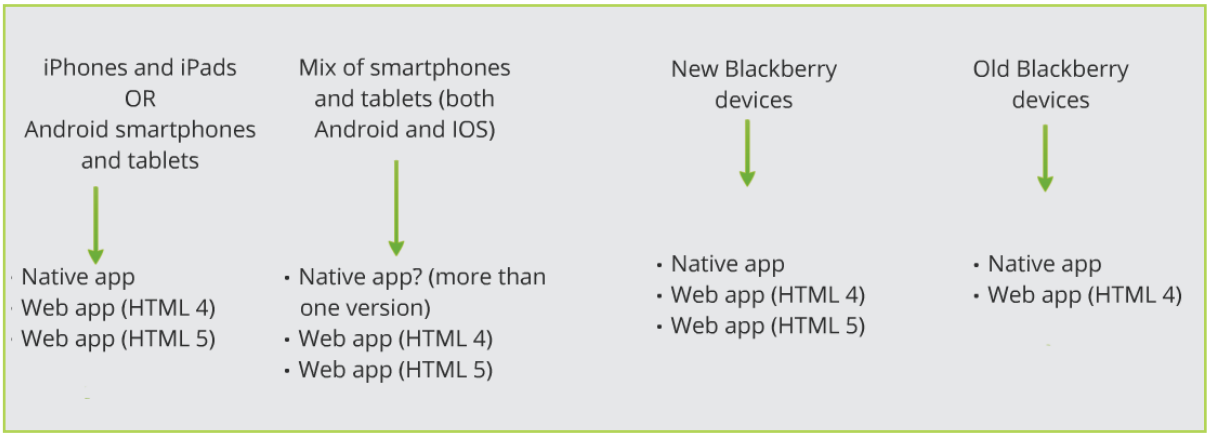
Native apps with the full control of the device get you closest to the full potential of mobile learning. Your audiences may expect all your mobile learning solutions to be like their favourite apps on their iPhone. These are predominately built as native apps and so you would have to follow the same path if you want to match up to that presentational and interactive standard.

HTML5 will deliver standard interactive screens and media (although synching audio with transitions and graphics is not easy). You will not be able to have the type of animations you may be used to having in Flash-based e-learning approaches.

HTML 4 is a simpler format of HTML (it's been around for some time) and, although it enables multi-platform and browser usage (both on desktops and mobile devices), it only really supports basic presentations and interactions. There is no audio or video support.

Both HTML formats run under mobile browsers and so the learning does not have to be actually sitting on the mobile device, it can be delivered as a **web app.**

So, those are the formats. Now you need to look at what devices you have out there and this flowchart looks at four possible scenarios. You will see that only if you have some older BlackBerry phones out there, you will have to use HTML4 or native apps.



It gets a little more complicated when you want to **track.**

To track learners, you need to launch the interactive content from a learning management system of some kind. Since native apps don't actually run under a browser, you have to go for a Web App to do that. So, for those four scenarios, the native apps option disappears if there is a need to launch and track from a LMS, unless you can use emerging technologies such as Tin Can with your LMS.

iPhones and iPads OR Android smartphones and tablets	Mix of smartphones and tablets (both Android and IOS)	New Blackberry devices	Old Blackberry devices
What if you want to track the learning?			
~~• Native app~~ • Web app (HTML 4) • Web app (HTML 5)	• Native app? (more than one version) • Web app (HTML 4) • Web app (HTML 5)	~~• Native app~~ • Web app (HTML 4) • Web app (HTML 5)	~~• Native app~~ • Web app (HTML 4)

We are often asked by our clients if we can develop a **single version** of the e-learning which can run on both the desktop and on a mobile device.

This might seem to make sense from a version control and cost point of view. There is a problem though.

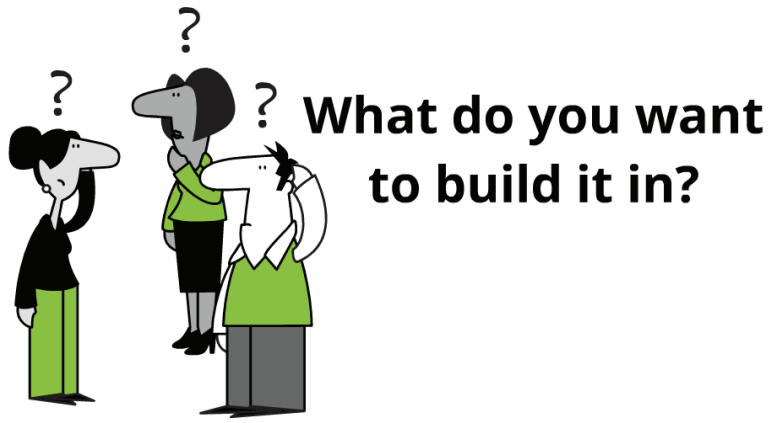
Ideally, you'd like to use HTML5 as it allows you to take advantage of the latest features such as geolocation and use audio and video on devices that don't support Flash. The problem is that HTML 5, only in a draft format, is **not** supported properly by the type of browsers that you commonly see in the workplace (such as Internet Explorer 7 or 8).

You can do one version for all formats. We use our own responsive e-learning design framework to do this for many of our clients. However, you need to do extra work to provide 'fallback' support for older browsers. IE6 for example will always provide challenges for HTML5.

Of course, if you want absolutely only one version for all platforms (including IE6), you will need to build it in HTML4 and so this is how your options would get reduced in this case:

iPhones and iPads OR Android smartphones and tablets	Mix of smartphones and tablets (both Android and IOS)	New Blackberry devices	Old Blackberry devices
What if you need the same content for a desktop with IE7?			
~~• Native app~~ • Web app (HTML 4) ~~• Web app (HTML 5)~~	~~• Native app?~~ (more than one version) • Web app (HTML 4) ~~• Web app (HTML 5)~~	~~• Native app~~ • Web app (HTML 4) ~~• Web app (HTML 5)~~	~~• Native app~~ • Web app (HTML 4)

Step 4 – Decide the best way to build your mobile learning solutions



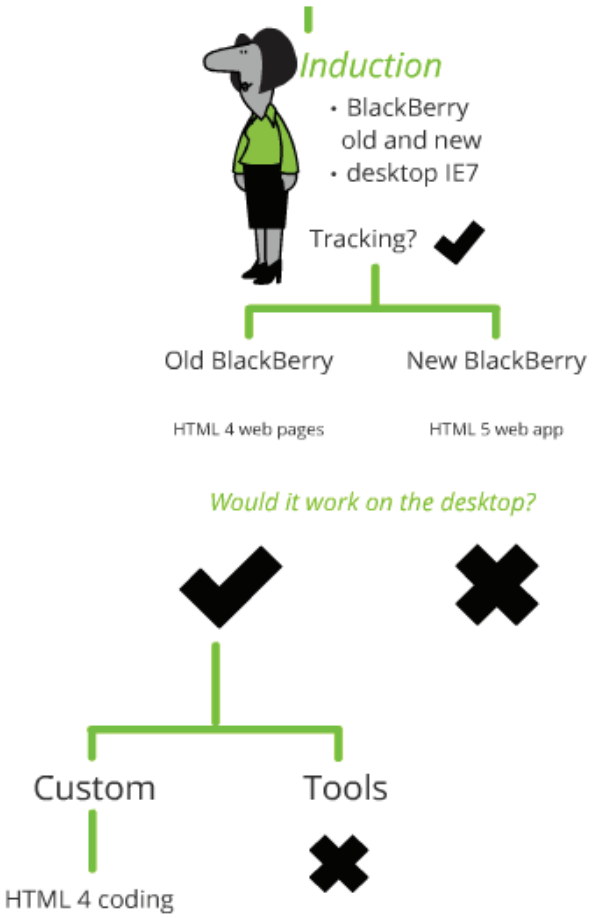
There are a number of paths you can take when building mobile learning. Essentially, they boil down to **building it yourself** as a custom solution or **using one of the growing number of tools** for mobile learning development that are out there.

We look at each of these options in more detail in the third of these mobile learning guides. But we can still take a look at this decision-making process at a high level within this guide.

We will take three typical learning requirements and show how each could lead to very different decisions on the way the content would be built.

We start with the mobile modules for an Induction or Orientation program.

1: Induction / Orientation



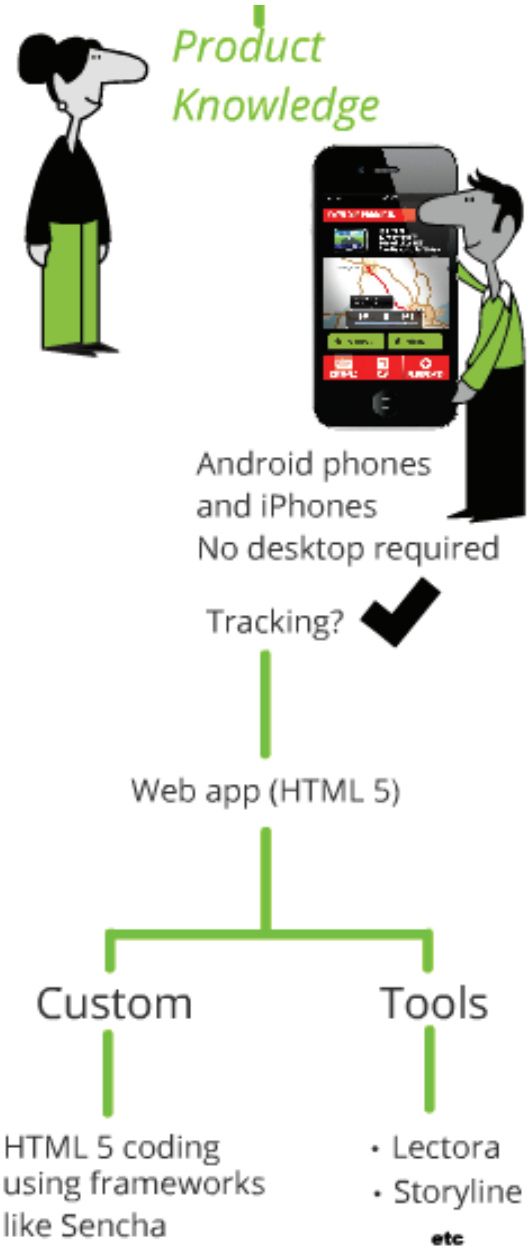
This orientation example illustrates the type of scenario we have just been looking at previously.

It includes the typical requirement of a wide range of BlackBerry-based and desktop-based modules that need to be tracked.

Ultimately HTML4 is the safest path for this situation.

This could be developed either by tools such as Lectora or built with Dreamweaver using HTML templates.

2: Product Knowledge



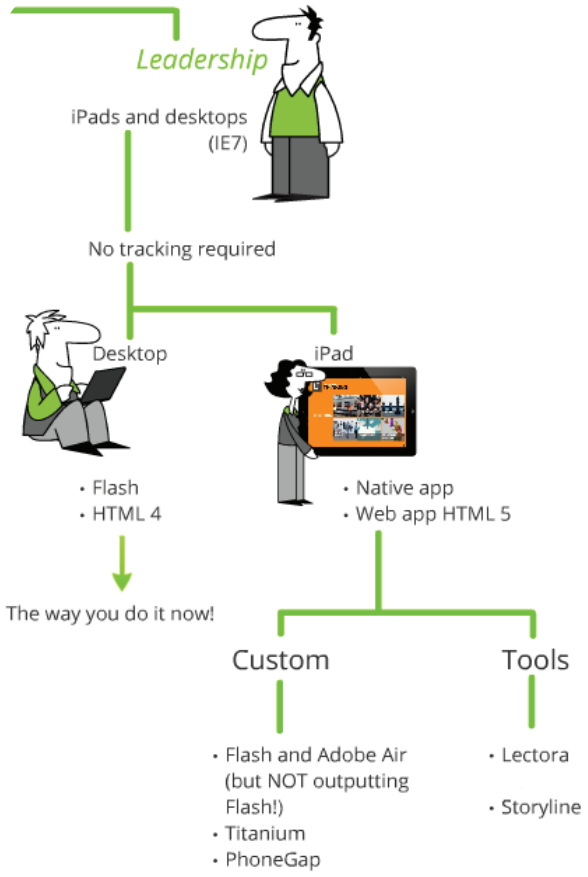
What if you had a product knowledge mobile learning requirement and it was just on smartphones but with a need for tracking?

Because there is no requirement to use a web browser like Internet Explorer, it can be **HTML5** and delivered as a web app (launched from an LMS, providing it is supported on the smartphones).

This could be developed either by tools such as Lectora and the upcoming Storyline tool from Articulate or built in HTML5 using specific frameworks like Sencha.

We go through all of these build options in more detail in the **Building Mobile Learning guide.**

3: Leadership



Our final example is a typical requirement for senior management – a leadership development program that will use both desktop/laptop technologies and tablets like iPads.

Because there is no requirement for tracking, the **mobile learning** can be delivered as either a **native app** or a **HTML5** web app.

This won't work on the **desktop** so there could be a totally separate version which might just be **HTML4** or even **Flash.**

This is quite feasible as most programs for senior managers are often about sharing ideas and information rather than multiple-choice driven e-learning. The core content could then be quite simple and easy to re-purpose for the different formats.

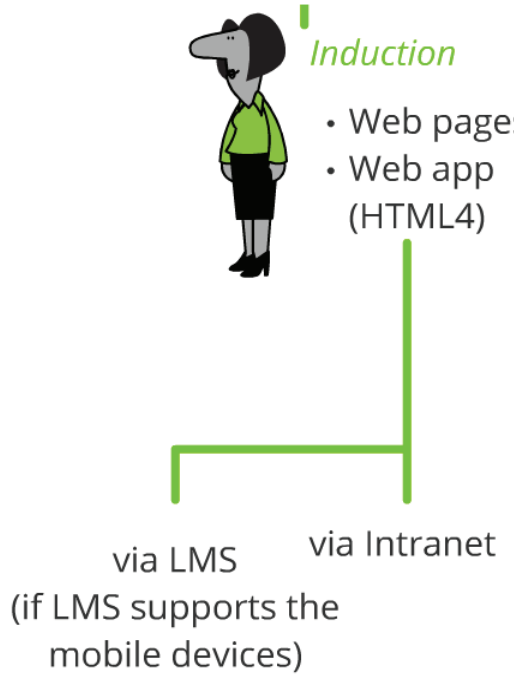
As the mobile learning app could be a native app it could use a range of methods including building it in Flash and outputting it as a native app using Adobe Air.

You could, of course, have one version that used features of HTML5 which would have to include 'fallbacks' for some features to ensure they still worked in IE7 (for example using Flash to deliver video in IE7).

Step 5 – Decide the best way to deliver your mobile learning solutions

So, you've built your mobile content. How do you now get it to your learners? We've touched on some of the options already, but this is a significant consideration in your use of mobile learning within a blended solution. It could be pivotal in your overall choice of platforms as, if you get it wrong, you will have enormous headaches reaching all your target audience.

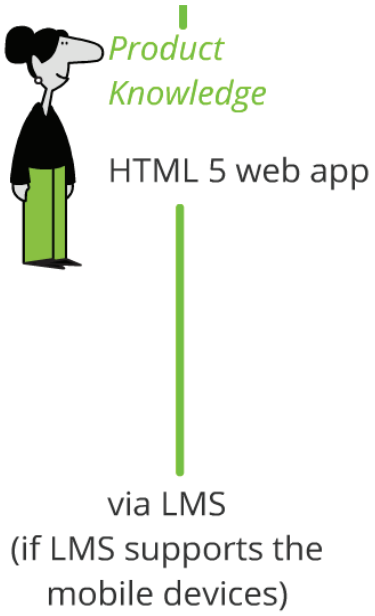
Let's return to our examples and see how differently they would have to be distributed.



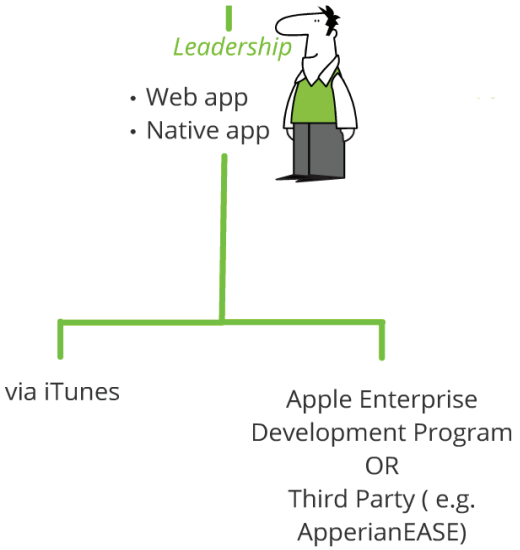
If you remember, our orientation example went down the HTML4 path.

One distribution channel is via an LMS (if the LMS supports mobile devices - ie you can actually see the LMS and launch things from it via the mobile device).

The other route is simply to provide links to the content via a web page (though this would not be tracked, of course).



Our Product Knowledge HTML 5 web app would use a similar distribution channel, using a LMS if it can run on that mobile device or via links on a web page (if the LMS does not run on the target mobile devices).



Finally, let's look at our Leadership example, which is an iPad app which needs no tracking.

This could be delivered via iTunes (but would have to be approved by Apple and would be freely available to anyone) or it could be released via the Apple Enterprise Development Program either by setting up your own App Store or using a third party one such as ApperianEASE.

This last option allows you to push content regularly out to your learners, without having to wait for approval from Apple for every new course.

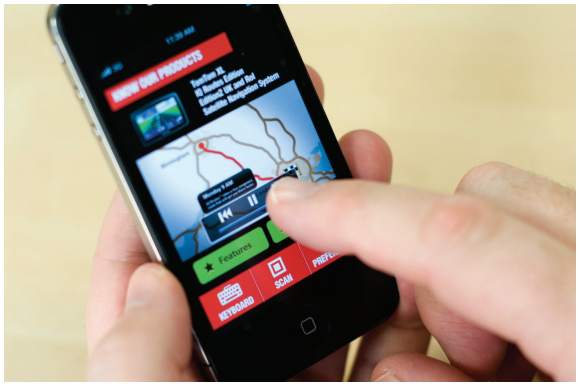
We look at this in much more detail in our **Building Mobile Learning** guide.

In conclusion...

Mobile learning helps get learning content closer to your learners. It will be an increasingly common element in successful blends. The fact that it is going to be a little more complicated doing this than the long established LMS/Flash model should not put you off.

The key is to go through the steps outlined in this guide and keep your shareholders involved every step of the way.

Step 1 –
Check out if mobile technology is the only technology medium for your target audience



Step 2 –
Work out what where mobile technology fits into the overall blend

Step 3 –
Work out what mobile technology you are going to have to use to deliver your mobile learning solutions

Step 4 –
Decide the best way to build your mobile learning solutions

Step 5 –
Decide the best way to deliver your mobile learning solutions

Talk to us...

Want to take mobile learning forward in your organization?
Here are some next steps you can take:

- **Join the Elearning Professionals Group to keep in contact with colleagues:**
  http://www.linkedin.com/groups?gid=3724233

- **Download the Kineo Top Tips app to stay updated on mobile learning design (and lots more), available on iTunes here:**
  http://itunes.apple.com/gb/app/kineo-e-learning-top-tips/id454724285

- **Watch out for part 3 of this guide, which will talk you through the technicalities of building and delivering mobile learning – sign up for our newsletter to get a reminder:**
  http://www.kineo.com/kineo-newsletter.html

- **Get in contact with us, we'd love to help you make mobile learning happen for your organization:**
  enquiries@kineo.com | 01273 764 070 | www.kineo.com

  We have offices in the UK, US, China, Australia, New Zealand, Sweden, Israel and South Africa.