Right Time and Place - mLearning Use Cases (May 14)

by Paul Clothier, May 12, 2014

 "Follow these guidelines and think about the use cases, and you'll be moving in the right direction. They'll help you uncover the right content, the right design, and the right delivery method."

What's the first thing most people do in the morning and the last thing at night? According to a 2013 IDC-Facebook report, 79 percent of 18-to-44-year-olds check their smartphone immediately after they wake up and last thing before they go to bed. Also, the average person keeps their smartphone with them for all but two hours a day and checks it 150 times a day. Yes, 150. Compare that with our use of a laptop or desktop and you begin to see why designing mLearning might be a little different than eLearning. How we use a mobile device and a laptop are distinctly different.

Let the device and context drive the content

Even so, many companies are designing learning content for mobile in a similar way they do for eLearning. They neglect to consider the mobile usage contexts, and as a result such projects meet with marginal success or they fail. The key to successful mLearning is in understanding context. The when, where, and who determine what and how (Table 1).

Table 1: **Compare the contexts**

Context	**eLearning**	**mLearning**
Delivery platform	Desktop or laptop (large screen); stationary	Mobile device (small screen); handheld and often moving
Learner posture	Seated (usually)	Sitting, standing, walking, prone, supine
Distractions	Typically few	Typically many
Time available for learning	Typically 15 minutes or more	Varies, but generally short bursts
Input device	Keyboard, mouse, and/or trackpad	Thumb, finger, and touchscreen
Situation	Often in an office or workspace	Anywhere, anytime, including on trains, in bed, in coffee shops

What works for eLearning probably won't work for mLearning. Squeezing your existing instructor-led or eLearning content onto a smartphone is not going to be very useful. The information may be valuable, but the time, place, and context of mobile usage don't complement that type of content.

A common problem when designing mLearning is that content is step one, and how to render it on a mobile device is step two. Instead, we need to start with the device and the context and then move towards designing the content. Consider the features and characteristics of the smartphone (Table 2).

Table 2: **Smartphone features, characteristics, and use**

Features and characteristics	How it's used
- It's small - It's always on - You're always connected - You can hold it in your hand - You can put it in your pocket - It can alert you throughout the day - It is location sensitive - It can take photos, record audio and video - It can detect movement and location - It's private—generally only you can see the content	- You carry it with you on your person - You look at it many times a day - You communicate with many people every day - You hold it when you use it - You use it in short bursts - You often use it with one hand - You use it in hundreds of different locations - You use it when you're on the move

There are other considerations. How might people use the device? How long will you have their attention? What are the typical target devices? What's in it for them? Will they be eager to use the content? Should it be fun? Should it be challenging? How does it fit in with your other training or learning strategy?

Only by looking at the characteristics of the mobile device, including how it is typically used and who the target audience is, can you start choosing and designing appropriate types of mLearning content. Here are a few content types you're probably familiar with:

- Augmented reality
- Coaching
- Compliance training
- Decision support
- Job aids (performance support)
- Location-based learning
- Quick reference
- Quizzes and tests
- Reminders
- Short courses
- Social learning
- Spaced learning
- Supplementing learning
- User-generated content

Consider the use cases and user stories

Each content type above helps the designer address a particular need, context, and use case. They are crucial to understand. Here are four fictitious use cases, based on my experiences of helping organizations develop mobile solutions. Each challenge and use case drives a specific solution. These may prompt some ideas for you, and provide insights for the design and implementation of your own mLearning projects.

Performance support

New servers at the Mango Fine Dining restaurant chain attend a half-day wine class with the sommelier. They learn about each of the many wines in the cellar, and how to pair them with the entrees. Servers can also refer to a large binder with all the wines, labels, descriptions, and pairings. It typically takes new servers about four months to become fluent in the wines.

Pete, the CEO, decides to make a mobile app available so that servers have instant access to wine information and pairing. Developers create Android and iOS apps that list all the wines, descriptions, vintages, wineries, grapes, and food pairings. Servers can search for a wine (even by taking a photo of a label on a bottle) and the app will display the wine information in seconds (example: Vivino app). The app even sends push notifications when the menu changes.

Servers use the app as they need it on the job, and whenever they have a free moment to learn more about the wines and pairings. The app includes short videos on how to serve wine at a table, and quizzes to test wine knowledge.

Servers soon became much more engaged in teaching themselves about wine and pairings with the app. They used it outside of work to learn and review. Getting 100 percent on the quizzes became a competitive sport among the servers. They became fluent on the wine and pairings in about half the time it formerly took.

Soft-skills training

New sales assistants at the nationwide electronics retail chain BitSmart were good at engaging customers but struggled to move towards closing sales. This affected their commissions and the company's bottom line. Sales-coaching workshops were very expensive and time-consuming, so Anne, the VP of education services, decided to try a mobile solution.

She had a simple mobile app developed internally for streaming or downloading short videos. Users can comment on and rate the videos, and Anne can track app and video usage. Her team created a series of one-minute sales-training videos featuring some of the more experienced sales assistants. Each video addressed a common interaction with customers, and many of the videos focused on different techniques for closing a sale. Each video offered the option of sound or subtitles, so sales assistants could view them in any environment.

Every Monday a new video appeared on the mobile app and the users received a notification about the new video. Sales assistants were encouraged to watch the videos on the store floor during slow times.

After the first three months, stats showed that 95 percent of all sales assistants had viewed the videos. Sales increased by 23 percent from the previous quarter. Anne carefully reviewed the ratings and feedback on the videos. Users asked for more videos on specific topics, for quick reference guides, and for easy access to feature/benefit information for all BitSmart's products. Anne now adds learning games that simulate customer interactions, and product-update news. The mobile app evolved into an essential tool for all sales assistants.

Spaced practice

Sales engineers at BankTech take an intense four-day instructor-led workshop to learn the bank's back-end technologies and systems. They receive a thumb drive with all the training slides, system diagrams, and reference material. Much of the training doesn't stick, and new sales engineers often end up asking veteran sales engineers and some of the professional services team for help—which impacts BankTech's current projects. A survey shows that few of the sales engineers actually reference the content on the thumb drive on a regular basis because they have to search through copious presentation decks to find what they want.

Eric, the new director of training, decides to incorporate mobile into the mix. He finds an off-the-shelf mobile content-delivery platform that has a text-messaging feature and purchases a subscription (example: Train By Cell). The platform is web-based and allows uploading and presenting of text, images, videos, quizzes, polls, and surveys. It allows rapid searching for content. The essentials of each of the training modules—text, graphics, and videos—are carefully redesigned for mobile.

The next four-day workshop is different. Before the training all the learners receive a welcome text on their phones. The text has a link to a short survey to ascertain their current knowledge, expertise, and background—as well as an outline of the topics in the upcoming training.

After each day of training the learners receive another text message that links to a 10-question quiz, based on the day's content, which they must complete. The quiz has remediation that links back to the relevant content in the app.

Each day for two weeks after the workshop the learners receive a text message with five quiz questions about some aspect of the BankTech systems and technologies. Some questions involve sketching a system diagram and uploading a photo of it. Once again the quiz-remediation links back to the relevant content.

Six months and three training workshops later, sales engineering and professional services report decreased reliance on their teams from new sales engineers. Not only that, sales engineers begin to access the mobile content while in meetings at customer sites when they need to review or clarify something—it's easy to quickly and unobtrusively pull out their phone.

BankTech eventually develops its own native app to improve upon the web app and provides locally stored content, more short videos, FAQs, and mobile access to the issue-tracking system.

Job aid—quick reference

Pablo runs CareerMark, a small recruiting agency in San Francisco. The agency places candidates in marketing positions in tech companies. His services include teaching candidates how to interview effectively. He has an eLearning module on interviewing skills, but candidates don't always complete it and they forget much of the information by the day of their interview.

He wants to offer a shortened version of the module that candidates can access on their mobile devices, but Pablo lacks the finances to get a custom mobile app developed. He searches online and discovers how to use a simple PDF to provide basic mobile content.

He creates a Word document, reduces the margins, uses 36-point fonts, and puts together a quick reference for each of the ten guidelines for a successful interview. He exports the document as a PDF, formatted for easy reading on any smartphone. He uploads it to a publicly accessible folder in Dropbox. On the morning of a candidate's interview he sends them an email with a link to these PDF guidelines. He

tells them to review the guidelines before they go into the interview. They can do this quickly while they are sitting on the bus or train, or while waiting in reception at the interview.

Although very simple, this proves to be effective. Pablo creates other mobile-friendly PDFs on creating a killer resume and answering interview questions. These turn out to be more effective and more popular than much of the eLearning material he previously created. Pablo's candidates prefer reading and learning from these short PDFs when they have a few moments rather than sitting down in front of a computer to take a 20-minute eLearning module.

He begins to invest more of his time creating content for mobile consumption. He adds graphics and quizzes to the PDFs. Using his iPhone, he creates short interview-technique videos and uploads them to Dropbox, emails instructions for saving the content on mobile phones, along with links to all the current content.

Guidelines

These examples range from the complex and expensive to the simple and economical. Finances are not always the most important resource—in many cases it's creativity. Solutions often tend to evolve based on user feedback—make sure you have a mechanism to elicit this. I have seen a lot more willingness to provide feedback on content and design from users of mobile content than I have from those using traditional eLearning.

When you embark on an mLearning project, think through the typical use case scenario. Sketch out a few diagrams to help you visualize. Talk to as many end users as you can. Learn about their mobile-usage habits. Get to know their needs, wants, and frustrations. Ask them what would help them get their job done. (You may be surprised by the answers.) Then ask yourself the following:

- What problem am I trying to solve?
- Why am I considering a mobile solution?
- What will mobile provide that other delivery mechanisms can't?
- Where, when, and how will the mobile content be consumed?
- What's the simplest solution for this?
- What would be the ideal solution for this?
- What are the target mobile devices?
- How will the user benefit from this?
- What type of solution does this require—learning, quick reference, performance support, other?
- Is the mobile content stand-alone or supporting a broader learning and/or training strategy?
- How will I elicit feedback from users?
- How will this improve productivity and how will I measure it?

One exercise I recommend for helping design the right content is to look at your learners' use cases and complete statements like:

- Users will often be in motion, so I will…
- Users may not have wireless access, so I will…
- Users will needs step-by-step instructions, so I will…
- Users will often be in a noisy environment, so I will…
- Users will only have one hand free, so I will…
- Most users will have iPhones and Android devices, so I will…
- This content will be supplementary to our eLearning modules, so I will…

For example:

- Users will often be in motion, so I will make the text and navigation buttons bigger.
- Users will often be in a noisy environment, so I will provide optional subtitles on all videos.
- Users will only have one hand free, so I will make all the navigation buttons within easy thumb reach.

In other words match the context and use to a specific content design or navigation design attribute.

Follow these guidelines and think about the use cases, and you'll be moving in the right direction. They'll help you uncover the right content, the right design, and the right delivery method. And who knows, maybe the last thing they look at before they go to bed will be your content.