

Your employees are increasingly mobile, is your learning?

Key issues for business leaders are often a combination of driving growth, innovation and productivity while ensuring alignment across their organizations. Yet much of the formal learning initiatives where the bulk of learning investments are made are either not aligned with strategy and/or don't take into consideration the constraints on people's time by re-engineering how they produce, deliver and encourage formal and informal learning. With a significant proportion of the workforce already mobile and the trend on the rise, the question is not *should* mobile learning be part of learning strategy but *how*. Mobile learning over the last three years has primarily focused on repurposing content and distributing it on PDAs (personal digital assistants). It's time to rethink how workers communicate, collaborate and learn—especially as growing numbers of workers now are very comfortable with and expect to use technology that enables just-in-time, just-for-me and anytime, anyplace learning. The result will be more effective learning that aligns with business processes and workflows, with much greater business impact than traditional training.

Three Trends Driving the Need to Utilize Mobile Learning Now **Mobile Working**

Eilif Trondsen, Ph.D., Director of the Learning on Demand (LoD) program at SRI Consulting Business Intelligence recently articulated key trends pointing to the need and opportunity in mobile learning in Bulletin *Mobile Learning Revisited*. Trends in employment point to increasing mobility and the use of mobile devices on the job to accomplish tasks such as CRM (Customer Relationship Management) and increasingly for various tasks in supply chain management, such as tracking and managing production, inventory and shipping. People need to stay connected and informed while multitasking and on the move. Remote and mobile workers including frequent business travelers, mobile office workers, telecommuters, remote branch office employees, multi-site workers and non-office workers are estimated by Stat/MDR to be approximately 94 million at the start of 2005, or nearly 40% of all US employment.

Time Pressure and Impact on Learning: Time to Re-engineer

The trends in corporate restructuring including outsourcing, and the demands placed on employees to get more done with less people is having an unintended impact by driving demand for traditional training courses down. Estimates are that the average number of training days completed in the US per year is down to two days. People just don't have the time to sit in epic workshops or even follow through with their commitments to attend shorter ones. Yet 75% CEO's when surveyed in 2004 by IBM, said employee education is the most critical success factor relative to other people issues. How many people cancel a few days before a workshop because they are too busy or were called onto another project? (Or they say that because they sense that they won't get enough value out to justify taking themselves off the job for even a short time). This is exasperated by outdated curriculum that hasn't taken advantage of technology to shorten training time, ensure the right people are in the right course at the right time, and to support the growing trend towards informal and workflow learning, all of which can be supported with mobile learning strategies.

Technology – New Developments Make Deploying Engaging Mobile Solutions Easier

Look around these days from homes to offices to coffee shops to cars, trains and airports and what do you see? Mobile gadgets everywhere! Just scratching the surface reveals the last two years have seen an explosion of mobile devices as demonstrated by the popularity of Apple's iPod, Blackberrys used for mobile email, more cell phones in use than ever including many more with PDA functionality such as browsers, email, camera and video (although usage and uptake of these features is lower in the US than in Europe and Asia), while laptops have gotten lighter with longer battery life and now connect wirelessly to high speed networks at thousands of "hotspots" and increasingly in homes with wireless broadband. Imagine the possibilities...

Producing learning content for multiple devices that can also serve up that content based on where the learner is or what they are doing is now a built in capability for at least one 3rd

generation LCMS (Learning Content Management System) and recording and editing audio and video can now be done more easily at lower cost. Further, advancements in tools such as Macromedia's Flash enable developers around the world to build advanced games, learning and other applications for cell phones and other mobile devices.

So, the devices have gotten more powerful and ubiquitous and easier to connect to high speed networks, and building content and applications for them have advanced as well. What are we waiting for?

New Approaches to Reaching Your Mobile Employees Today with Connectivity and High Gain Rich Content

Having your employees on the move and working in different locations poses a problem to keep them informed and engaged with each other in ways that would enable faster detection of both opportunities and problems while working together to develop collaborative solutions.

Many mLearning projects to date from around the world have been more focused on repurposing existing content to work on a mobile device than redesigning or building new learning processes to solve specific business driven learning needs. This is starting to change with new applications and ideas, looking beyond deploying content to increasing collaboration and real time information sharing with significant results.

Enabling employees to get the information and learning they need in the format, device and time they want while being able to collaborate and learn from each other to create and share knowledge are the keys to performance *now*, more than ever.

Online Communities, Moblogging and Podcasting

Organizations have been using online communities in which workers monitor and discuss what's happening via instant messaging, document sharing, and discussion boards for a few years now. Web based solutions enable connecting anywhere, anytime. What's new is the act of opening these up to customers and/or others in the supply chain for instant feedback and meaningful dialogue promoting better customer retention, understanding consumer needs, and analyzing processes. Output from these communities to mobile devices is possible so people don't have to be online to be connected to the buzz. A similar technology but often used quite differently is Blogging – which enables employees to publish information to a website from their phones, PDAs or laptops (known as moblogging). Content is easy to publish and could include photos – e.g. of competitive products, voice e.g. elated reaction to a successful sales call that promotes enthusiasm and morale and text comments in real time to a website which can also be accessed remotely. All of this can be summarized and pushed via email or browsed. Of course, security and guidelines are important to address but the point is that low cost enabling of employees to interact, be informed and publish relevant information on the go can enable organizations to make faster, better decisions.

A related approach is "Podcasting", a term coined in September, 2004 combining the words iPod, (a portable audio player) and broadcasting which simply means publishing and/or subscribing to audio content created professionally or otherwise on the device of choice, much like many subscribe to aggregated news feeds now. There is already free content out there that would benefit your managers but creating you own is also quick and easy and could be deployed by your Corporate Communications and Learning teams. Content could include audio from business leaders, leadership programs, cultural change related content, etc. and would be available whether at home, in the car listening to a CD or on the move with mp3 players or using a cell phone that are increasingly mp3 enabled. The use of portable distributed audio to inform and educate is likely to grow as evidenced by the growing consumer demand for downloadable audio books. At least one organization in the UK is considering handing out mini-iPods at the end of key workshops that would cost less than 1% of the cost of the course with key lectures and discussions pre-loaded on them. What a way to address the current practices of giving out so much print material in a course that they are offered to ship them back home? Instead, employees can try out their new toy on the flight home with only high gain reinforcing content on them to start.

The Classroom, Revisited for Mobile Workers

Re-invigorating classroom training is a focus for many CLO to get better results and return on investment. The time is here to re-equip classrooms to take advantage of technology that enables more people to participate in the learning process while getting more out of the content created.

Inexpensive webcams or higher end cameras can be used to film lectures in unobtrusive ways that can then be viewed live or asynchronously around the world by mobile workers. With wireless laptops and PDA's connecting at high speeds in coffee shops, airports and homes, viewing key presentations in moments of down time becomes a reality and you get more out of the original lecture or discussion.

With a webcam on their device also enables users to contribute to learning sessions and participate in collaborative learning with experts no matter their location and if experts no longer have to travel to the workshop, they are more likely to agree to share their expertise because it doesn't take them off the job for a day or more to contribute for an hour or less. There are a few software tools out there that are easy to implement that help you produce and manage this type of learning that can be captured, shared and reused in a continuous learning loop that raises the level of knowledge. This same technology can enable instant video conferencing with shared whiteboards which supports the trend towards peer to peer informal learning. The use of mobile phones in the learning process is also an opportunity. Participants can take photos and share and discuss either together or remotely.

Using automated SMS distribution systems that tie into your corporate directories, text messages can be sent out to reinforce key concepts or provide last minute joining instructions. Combining instant messaging groups, text message and email subscription lists at the end of learning events whether virtual or physical is a method to keep the dialogue and learning happening. Some organizations and universities have started using text messages to poll and test learners in the classroom or after. Blackberry type devices can also be used in this way as a method of reaching participants and keeping them engaged.

Mobile Phones for *Delivering Learning*?

Blended learning approaches that utilize mobile phones are an opportunity to reach employees on a computing device that is always with them. Questions often come up when discussing the viability of using mobile phones for learning. Marc Prensky, author of *Digital Game-Based Learning* summarizes types of learning possible on mobile phones in his article "What Can You Learn from a Cell Phone – Almost Anything!" "There are many different kinds of learning and many processes that we use to learn, but among the most frequent, time-tested and effective of these are listening, observing, imitating, questioning, reflecting, trying, estimating, predicting, hypothesizing and practicing. All of these learning processes can be done through our cell phones." He adds that this can only be done if designed right. This is of course true for delivery on any device.

Another untapped opportunity for learning with phones is the creation and use of engaging mobile phone based games that can introduce key cultural, ethical and strategic concepts or to reinforce/build key concepts. Marc and many others are major proponents and the exploration of using games for learning continues to be a hot topic especially in the US and the UK, exemplified by the Serious Games Summit selling out last fall and another one being scheduled just five months later.

Location Based Learning

This is an emerging field with dozens of universities and corporations partnering to find ways to enhance learning by using the physical location and context of the learner as part of the learning process. This is known as Augmented Reality in the US and more commonly referred to as Ambient Learning in Europe. A great example of this is the Symbol location based learning project produced in partnership with Symbol, MIT and a top learning and technology firm. The system automatically delivers just in time content to a handset, based on the worker's location in the manufacturing facility and checks to see they have the right equipment and clearance/qualification. The greatest growth in Ambient Learning has been in

Europe where corporations, higher education and museums are already using it to deliver information, learning and peer interactions and for team building events with users interacting with each other either in person or virtually with handheld devices that detect location. While it sounds a bit far out, realize that by the end of 2005, all cell phones in the US that are sold will have to have location based detection capability to support Enhanced 911, and Microsoft revealed that their new operating system under development called Longhorn will have location-aware software components.

Intrigued? Take Action!

The business drivers for mobile learning and the technology to enable it are growing stronger. Taking appropriate action now will enable you and your organization to take advantage of the capabilities in a way that benefits your employees, organization and shareholders.

Here are three suggestions to get started rethinking how mobile technology can produce results for your organization and taking the next steps.

1. The best place to start is by experiencing first hand what its like to get the information you need in the format and location you want. Here are some ideas:
 - **Blackberry users:** subscribe to an email news feed to keep yourself informed of a topic of interest. There are several that focus on mobile technologies that reinforce the points made above. Consider what else you would like to have in your palm, and how polling and delivering content to learners might add value.
 - **PDA users:** Try AvantGo – a free service that downloads news and content of choice. Take a look at lessons produced by Learn 2 Hand teaching language and other skills. Try connecting to a Wifi network to view video and audio news clips. Think of the message or content most valuable to your employees you could have produced for next to nothing.
 - **Cell Phone Users:** Go to your carrier's website and see what services and content are available and explore the capabilities of your phone. While your company may not support your downloading games or accessing location based content, try with your own phone. Consider how sharing of photos might be used in a leadership development course.
 - **mp3 Audio Player users:** Try an audio book. You can find them for free and of course for fee. Does your device record audio? Many do. How might these be used for learning?
 - **Tablet PC and WiFi enabled laptop users:** Subscribe to an interesting blog and listen to some Podcasting content. Use a webcam to stay in touch with your family or team. Experiment with using virtual classroom type software that best supports video with shared whiteboards and try some of the audio/visual ideas from above.
2. With the experiences you've had exploring mobile learning yourself, discuss mobile technology strategy with your CIO on an ongoing basis. Understand what's available and what's planned and point out the business drivers that require enabling some of the approaches above. Strive to find internal champions to further enable and leverage the technology investments already made.
3. Build collaborative partnerships with leading experts that can make sense of these nascent technologies and help you explore how these approaches could support your learning strategies and business priorities. With your internal champions in place and support of your IT leadership, tap into this network once you've picked the high gain business needs to address and get started!

Author

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