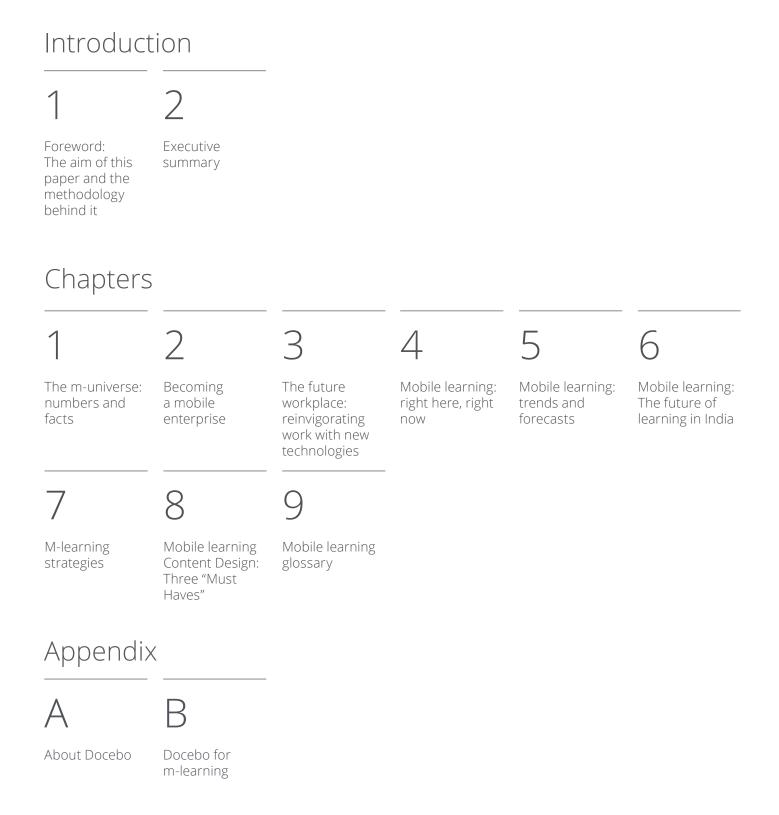
LEARNING ON THE GO TIPS AND TRENDS IN M-LEARNING - A REPORT



A report by Docebo | November 2014



Table of contents



THE AIM OF THIS PAPER AND THE METHODOLOGY BEHIND IT

If you are planning to deploy a mobile learning project within your organization, this paper will help you by:

- providing a clear vision of the market
- defining the business goals you can achieve
- giving you some methodological advice
- learning from the leading market experts

We have scanned the web, analyzed expert opinions, read industry leader whitepapers and talked with our customers. As a result of all this, we aim to provide you with a window into the mobile learning market.

THE MAIN RESOURCES USED IN THIS RESEARCH ARE:

Ambient Insight Report: The 2012-2017 Worldwide Mobile Learning Market, December 2013

Google-Nielsen: Mobile Search Moments, March 2013

Research in Learning and Technology: Vol. 15, No. 3, September 2007 **IBM:** Building the mobile enterprise: integrated, secure and productive, April 2013

GSMA: Mobile Economy Europe 2013, 2013

Towards Maturity: Mobile learning in the workplace, June 2014 Towards Maturity: Integrating learning and work, 2012-2013 Report Harvard Business Review: How Mobility is transforming Industries, 2012

Bersin & Associates: The rise of on-demand mobile video for learning and Development Research Bulletin, 2012

UNESCO: Policy guidelines for mobile learning, 2013

Yankee 451 Group: Mobile now:, daily insights from the mobility revolution

IDG Enterprise: Consumerization of IT in the Enterprise, 2014

docebo[®]

Executive summary

The facts are impressive: mobile devices are proliferating around the world. More people are using mobile devices for more things – and, at present, there seems no end to this trend.

The advent of this mobile phenomenon is changing enterprises worldwide, encompassing all sizes of businesses, industries and all sectors of the economy. However, not all enterprises are taking advantage of mobile technologies at the same level. Some organizations simply make use of mobile devices, while other organizations have a holistic approach and can be regarded as fully integrated mobile enterprises.

One of the uses for mobile devices is for learning, especially job-related learning.

The worldwide market for mobile learning products and services is said to have reached \$5.3 billion in 2012. The five-year compound annual growth rate (CAGR) is 18.2% and revenues will more than double to \$12.2 billion by 2017.

When it comes to developing mobile learning (m-learning), it is vital to remember that m-learning is not synonymous with e-learning. So, existing e-learning materials need to be redeveloped for m-learning applications. Understanding the end user is paramount to building a successful learning strategy. Different learners respond differently to digital learning, based upon how they prefer to learn and the content that is being presented to them. As the workforce in the western world ages, "millennials" (those who have grown up in today's technological age) are entering the workforce. Learning developers need to take both of these potential audiences into account when developing m-learning materials. There needs to be a comprehensive strategy around how your learning is approached for techsavvy learners and how to incorporate less tech-savvy learners into the fold.

This report outlines some of the ways to create a blended learning strategy that encompasses a wide variety of delivery methodologies. In doing so, developers should be keenly aware of their audience. Learning materials should be designed for specific media and should be aligned to organizational competencies.

The bottom line is that building m-learning programs is all about better enabling learning. Think it through. Then get creative - and know your audience.





Valentina has a unique background in Instructional Design. She is the creator of all of Docebo's courses in the Docebo LMS course catalog, and has extensive experience in the following: Safety in the workplace, Compliance Training, dissemination of organizational models and control systems, Privacy Training, and the development of soft skills. Valentina can be contacted on LinkedIn or via Twitter.

The m-universe: numbers and facts

by Valentina Piccioli

How do people "feel" about their smartphones?

Mobile has evolved so much so that we have, at our fingertips, not only facts and numbers that show "how much" or "how often" people use their mobile devices but also "how they feel" about them. Data about "feelings" towards mobile devices is overwhelmingly positive - according to the Pew Research Center, 89% of adult Americans don't worry about the time they spend using their phone:

Q29 Do you ever worry that you spend too much time using your phone, or do you not worry about this?

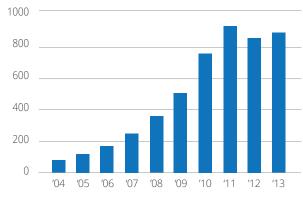
Based on cell phone owners [N=1,954]

	CURRENT	
%	11	Yes, worry
	89	No, do not worry
	0	Don't know
	*	Refused

The adoption of smartphones is a continuously growing trend not only in **mature markets** (such as the USA) but also in **emerging markets**. According to different sources, the second-biggest mobile phone market by the end of 2014 in terms of numbers of users will be India - and it will surpass the USA (while the first remains China).

Title: India's mobile market- Mobile subscribers (in millions) ¹http://www.pewinternet.org/about/

Millions of subscribers



Source: Reuters July 2013

Demographic data about smartphone ownership shows that the number of younger adults who own a Smartphone is growing and, surprisingly, that there is growth seen in the **mid-forty** and **mid-fifty** age groups.

According to Nielsen, 51% of mobile owners over the age of 55 now own smartphones. Moreover, "smartphone penetration continues to grow every day, with 85% of recent acquirers picking smartphones when purchasing new handsets."

M-learning is, without a doubt, the future for e-learning as smartphones become the BYOD of choice for work and play, and a virtual extension of the self. On-demand performance support, on-the-go knowledge checking, and learning at any time will define our next generation of students and workers. Flexible, immediate, portable, effective, engaging - that's mobile!

Roberta Gogos, Head of Marketing, Docebo





Active mobile app users in Hong Kong will exceed 9 million by 2014



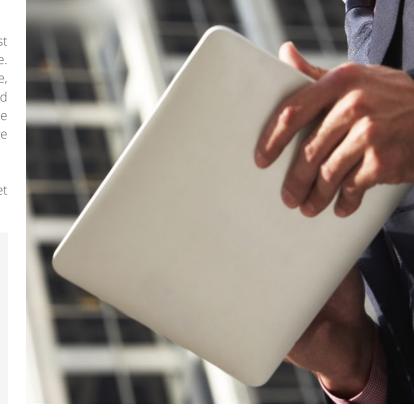
Source 451 Research Global Mobile Forecast, June 2014

Mobile is an experience

In 2013 we assisted in making mobile devices the most common web access tool, surpassing the PC for the first time. The mobile experience is eclipsing the desktop experience, not only in our private lives but also in the workplace. And the reasons are obvious: mobile phones are always "on", the user can access his/her handheld device 24/7 and they are more **personal** than traditional computers.

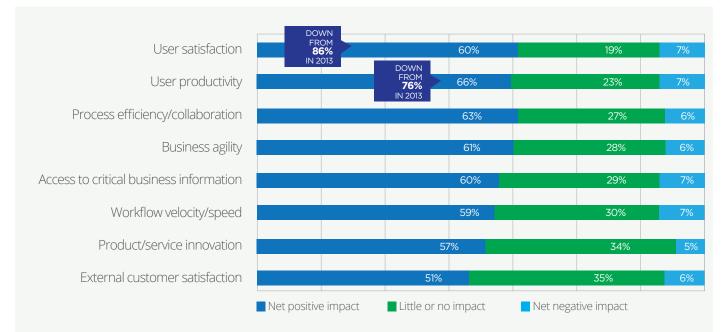
According to Gartner, **consumerization** is what drives tablet adoption in the enterprise.

From Gartner IT Glossary: Consumerization is the specific impact that consumer-originated technologies can have on enterprises. It reflects how enterprises will be affected by, and can take advantage of, new technologies and models that originate and develop in the consumer space, rather than in the enterprise IT sector. Consumerization is not a strategy or something to be "adopted." Consumerization can be embraced and it must be dealt with, but it cannot be stopped. Source: http://www.gartner.com/it-glossary/consumerization/



docebo[®]

Mobility is now a business "fact of life". For many companies, getting mobile strategies off the ground and making them successful is the highest priority for 2014. Pilot projects have, in fact, demonstrated that mobile applications serve as a more effective sales training and management platform. And, according to different sources, the consumerization of IT in the enterprise creates a positive impact in terms of: user satisfaction, user productivity, process efficiency/collaboration, and business agility.



Q. What type of impact will the consumerization of IT have on the following areas of your business over the next 12 - 18 months?

Source: IDG Enterprise 2014 Consumeritation of IT in the Enterprise http://www.scribd.com/fullscreen/212942014?access_key=key-qdxu28ngrbvpny-fzo65&allow_share=true&escape=false&show_recommendations=false&view_mode=scroll



A mobile device is as essential as a morning cup of coffee

90% American workers use their own smartphones for work



Source: Cisco http://www.ciscomcon.com/sw/ swchannel/registration/internet/registration. cfm?SWAPPID=91&RegPageID=350200&SWTHEMEID=12949

The BYOD (bring your own device) trend is accelerating the impact that mobile technologies are having on the enterprise.

From Wikipedia: Bring your own device (BYOD) refers to the policy of permitting employees to bring personally owned mobile devices (laptops, tablets, and smart phones) to their workplace, and to use those devices to access privileged company information and applications. The term is also used to describe the same practice applied to students using personally owned devices in education settings.

According to IBM, the benefits of allowing BYOD within an organization are:

Increased productivity and innovation: *Employees are more comfortable with a personal device and become expert at using it — making them more productive. Personal devices tend to be more cutting-edge, so the enterprise benefits from the latest features. Also users upgrade to the latest hardware more frequently.*

Employee satisfaction: Your people use the devices they have chosen and invested in — rather than what was selected by IT. 83 percent of users considered their mobile device more important than their morning cup of coffee. Allowing employees to use personal devices also helps them avoid carrying multiple devices.

Cost savings: BYOD programs sometimes save budget by shifting costs to the user, with employees paying for mobile devices and data services. However, this often results in few savings at best, so do not base your decision primarily on anticipated savings.

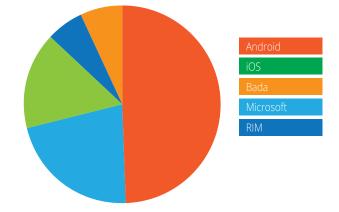
Source IBM :<u>http://www.ibm.com/mobilefirst/us/en/bring-your-own-</u> device/byod.html

The operating system battle

According to Gartner, by 2015, over 80% of handsets in mature markets will be smartphones and Google's Android operating system will continue to lead the market through to 2016.

In smartphones, Windows could surpass RIM Blackberry to become the third largest player, and could be same size as Apple in units by 2015.

Mobile OS Sales by Market share



Based on Gartner Forecast: Mobile OS Sales by Market Share (2009-2016)

App Economy

According to the European Commission the number of app downloads grew a staggering 80% worldwide in 2013. Europe showed a 68% growth rate and the USA, 36%.

"In 2013 Apps revenues reached EUR 12bn worldwide and EUR 2.75bn in Europe. China's App economy 'woke up' only recently. From nearly no downloads until 2010 China has surpassed both Europe and the USA in 2013 with a total of 23bn downloads and a growth rate of 135% for that year. However, revenues have not yet caught up. While China accounted for 26% of worldwide App downloads in 2013, it accounted for a mere 8% of revenue." Source: European Commission

The mobile ecosystem (both directly and indirectly) generated around 2.2% of Europe's GDP in 2012, while also directly contributing 390,000 jobs to the European economy.



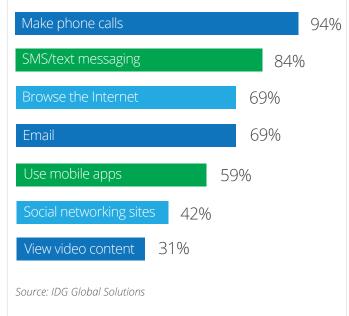
Becoming a mobile enterprise

by Valentina Piccioli

The mobile app market is big business. There are millions of apps currently on the market and the number of businessrelated apps is growing by the day. As mobile devices evolve with increasing functionality, enterprises are becoming more interested in mobile apps that can replicate highend functions that were previously limited to laptops and desktops, and also to leverage new features that are unique to mobile. The usage of mobile devices has gone far beyond calls and emails. Mobile apps are now part of one's daily work life.

Mobile Device Usage Goes Way Beyond Calls and Email

PERCENTAGE OF RESPONDENTS WHO INDICATED THEY REGULARY USE SPECIFIC FUNCIONALITY



Mobile is strategic to business and, according to different sources, the top two drivers for investments are:



- Improving responsiveness to customer
- Mobile-enabling existing business applications

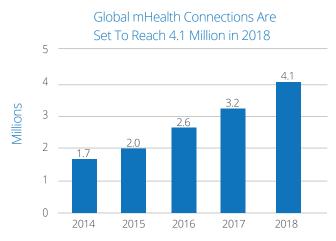
Enterprise Mobile Strategy

The ways in which enterprises adopt and implement mobile strategies are diverse. We can simplify this by defining three scenarios:

	Higher productivity
	More effective collaboration
	Flexible handling of business processes
Business	to Consumer
	New distribution channel
	Quality service
	Effective communication
	Customer loyalty
Machine	to Machine
	• Exchange data
	• Sensors in the Internet supply a wide range
	of information



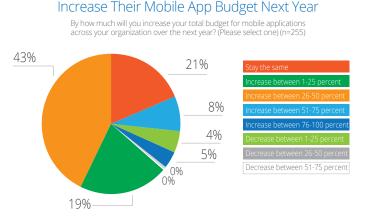
No industry is immune to the impact of mobile devices and almost any business can take advantage of their capabilities. Obviously industries where employees are naturally mobile have been are more affected by the rise of smartphones and tablets. Indeed, many of these were the early adopters. In particular, we see mobile impacting healthcare, real estate, restaurants, retail, banking and finance. And, in **education**, while it is not a vertical where users are mobile per se, we are nevertheless seeing a huge adoption rate for mobile.



Source: 451 Research's Global Mobile Forecast, June 2014

Small and midsize companies are early adopters of mobile applications for businesses, and, according to recent surveys, more than two thirds of enterprises of all sizes are planning to increase their mobile services budget in 2015.

More That Two-Thirds of Enterprise Plan to



Source: 451 Research's 2014 US Mobile Apps & Cloud Survey, June



Cloud computing and SaaS applications are increasingly important within a business mobile strategy. While mobile devices are considered a "mission-critical" technology for mobile workers by the vast majority of enterprises, **cloud computing** and **SaaS applications** are increasingly seen as equally important within any business mobile strategy. According to Yankee Group:

"The rise of mobile and cloud services is pushing demand among enterprises higher than ever, while at the same time bolstering the bottom lines of vendors serving the space. That was most evident recently when cloud provider Salesforce.com's second quarter earnings surpassed estimates."

As a consequence, the most important investments with regard to any mobile apps projects over the next few years are going to be in the areas of:

- mobile application management
- mobile application development platforms
- mobile API management
- mobile testing platforms
- mobile backend-as-a-service platforms





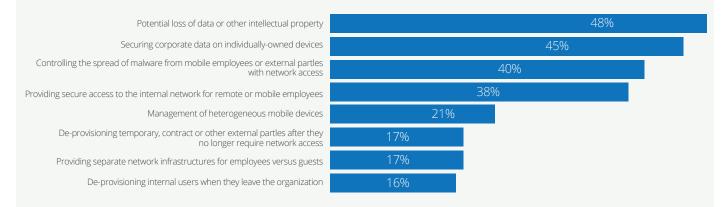
Concerns about enterprise mobility

There are some common concerns about the adoption of an enterprise mobile strategy. These concern:

- Security
- Compliance
- Complex management for multiple devices
- Lack of awareness of solutions
- Unclear ROI

Nearly Half of US IT Decision-Makers Worry About Data Loss When Supporting Remote Workers

Which security Issues, in particular are you referring to? (Please select up to three) (n=282)



Based: Asked to those who think security is an obstacle to supporting remote and mobile workers. Source: 451 Research's 2014 Enterprise Mobility: IT Decision-Maker Survey, June

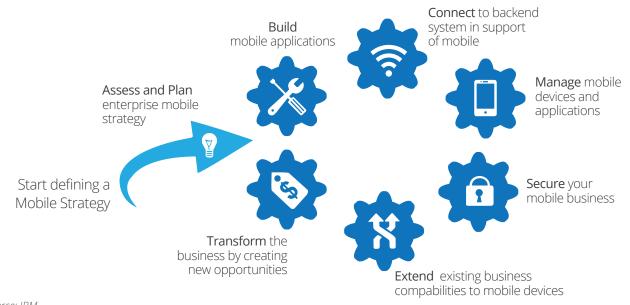


Conclusion

Mobile is changing enterprises worldwide, regardless of the business size or industry. However, not all enterprises are taking advantage of mobile technologies at the same level. Some organizations simply make use of mobile devices, while other organizations have a holistic approach and can be regarded as fully integrated mobile enterprises.

"Organizations that are mobile enterprises have enabled flexible and scalable enterprise-wide mobility — for employees and customers — using a holistic, integrated approach. By taking an integrated approach that aligns mobility initiatives with each other and with business models, goals and objectives, these organizations are able to provide instant access to businesscritical data and applications for a variety of devices, while still maintaining high levels of security."

Source: IBM - White Paper- Building the mobile enterprise: integrated, secure and productive



How to define a Mobility Strategy: an infographic

Source: IBM





Born in Taranto and a graduate in Telecommunications Engineering from the University of Bologna, Francesco comes from a technical background and has more than 10 years of experience in international IT projects, management and human resources.

He specializes in the development of web applications, and has been working for Cezanne Software (a cloud solution for HR Management) since 2007.

As a Project Manager for <u>Cezanne OnDemand</u> in the Italian market, he is responsible for the analysis and management of Talent Management projects in Italy, UK, Spain and Portugal.

Smart Working: reinvigorating work with new technologies

by Francesco Minichini Cezanne on Demand

The spread of technologies such as smartphones, tablets and cloud systems have irreversibly changed the way we work and interact. These channels are so widespread that they are now associated with traditional channels - consider how many people don't have a smartphone and how many people regularly send email from their phones.

These new social, technological, demographic and environmental trends are radically changing the organizational and management structure of your company's human resources. This is why HR departments are playing an extremely important role in understanding and taking advantage of these changes.

Implementing a working model based on the principle of "smart working" which is capable of including these new technologies brings great benefits in terms of reduced costs and increased productivity. It also creates the foundation for a more flexible and mobile working structure.

An increasing number of organizations are implementing more flexible ways of working by decreasing, or stopping completely, limitations in terms of schedule and workplace. With this new policy comes a new approach to working. The employee is now capable of choosing her/his schedule and where to work, as long as s/he fulfills her/his duty. This strategy has proved itself to be an effective incentive to achieving results.

We know that this kind of change may require time to take effect, especially in traditional organizations. Moreover, there may be some opposition to the change because it is difficult to modify habits. This is one of the reasons why "smart working" is not yet fully accepted in a work culture that is still tied to old processes. But, like any kind of change, this change needs a technological and organizational impetus in order to coordinate all the stakeholders involved and to overcome any opposition to innovation. Unfortunately, many organizations are bound by procedures that limit their chances of creating new opportunities.

Nonetheless, many organizations - even in traditional work cultures such as those found in much of Europe - have started "smart working" projects and understand the mutual benefit of this approach for both the company and its employees. Employees are granted more freedom concerning the way they carry out their duties as long as their goals are reached. Furthermore, employees may more easily find an acceptable work-life balance with this kind of flexibility.



Organizations experience significant benefits in terms of greater competitiveness, satisfaction and workforce productivity, thanks to the increase in flexibility and autonomy concerning working spaces, schedule and tools.

While evaluating the "smart working" approach, potential obstacles have to be considered. Research shows that remote workers are more productive than those working inside company offices. They tend to ask for fewer vacations and are more satisfied, thus reducing the possibility of their leaving the company. However, there's also the risk of the workers losing connection with the organization, along with, possibly, opportunities for increasing productivity and for career progression.

What are the key elements to consider when making the transition to a more flexible workflow?

- Focus on the people: it's important to conduct an in-depth analysis on the requirements of each employee. All your team members should be involved in the process of your company's cultural change in order to understand how best to meet productivity needs and employee satisfaction.
- Change management: to change your workflow it's necessary to include some training for your managers and HR managers, who are often attached to old leadership styles.
- Engagement: all the departments in your company should be involved in the re-design of the workflow in order to determine the most efficient and effective procedures and timing when making the shift towards "smart working".
- **Highlight results:** the benefits resulting from "smart working" should be monitored and shared within the organization and with the management. This is the best way

to achieve the engagement you will need in order to start cultural and behavioral change - and continuously improve.

Appropriate, innovative and adaptable IT tools: the market is encountering an increasing number of millennials - people who were born surrounded by modern technology and are used to interacting with such tools in their day-to-day activities. This is another reason why organizations cannot ignore the latest technological developments - to avoid missing out on potentially hiring such talent. Tools must be a resource for people and should perfectly integrate with their daily working activities. It is not sufficient to give your employees a corporate laptop or smartphone. It is vital to create the ideal technological working conditions in order to keep your employees always connected with each other, so that they can easily share ideas, documents and files.

Modern HR management software usually has a number of features that simplify communications within the organization, making remote working easy for employees.

HR portals and social groups give employees an interactive space in which to communicate, share information and work with other colleagues in a more efficient and collaborative way. Manuals, corporate policies or standard forms can be loaded to a safe area of the HR portal, in order to create a single repository where employees can find all the documents they need.

An interesting consequence of "smart working" is the development of "working groups". These are basically safe platforms where colleagues can share information and documents, and collaborate in an intuitive, effortless way with different people in real time. The result is a tangible improvement in the employee's productivity.



Mobile learning: right here, right now

by Valentina Piccioli

M-learning is something that is happening right now, all over the world, in all industries and in all sized enterprises. The main driver for this revolution is basic consumer behavior there's at least one smartphone in each hand.

"In contrast to the previous technology revolution of the PC and later the laptop, this chain of events is happening first at home and then flowing into the workplace."

Gary Woodill, Senior Analyst, Float Mobile Learning

This adoption of mobile learning happened faster than expected. In fact:

"Those with several years' experience in using technologyenabled learning report higher levels of mobile usage, but we also see a spike in usage in those that are new to using learning technologies, implying that some are adopting **mobile solutions as part of their first steps with learning technologies**." Towards Maturity- Mobile learning in the workplace

But what is m-learning? Even if there much disagreement on the definition of m-learning, most will agree that it's **more than simply learning on a mobile device**. We are already used to seeing people moving around with their laptops and taking lessons or training sessions whenever and wherever they can. We could say that we are already over this first generation of ubiquitous learning.

Mobile learning is learning **on-the go** and learning at the **point of need**, but it is also a way of **consuming content**, a **social** experience and an **informal** way to learn. The vast majority of mobile apps represent on-demand content, performance support or education.



We were given legs for a specific reason: to move. Allowing people to take classes wherever they go is the ultimate game-changer in learning.

Dario De Angelis, Digital Marketing Manager, Docebo

When talking about m-learning we must take into consideration m-learning as a training methodology, a social trend and a business game changer. We must also take into account that:

- M-learning transforms traditional training, supports performance at the point of need and, is informal and social by nature.
- The use of m-learning in the non-institutional learning context appears to be the most successful strategy to adopt for now.

"Drawing from the literature on both mobile learning and informal learning, Jones et al. (2006) proposed six reasons why mobile informal learning might be motivating: control (over learners' goals), ownership, learning-in-context, continuity between contexts, fun and communication." A.Jones and K.Issroff, Motivation and Mobile Device

Finally, we have to consider **m-learning as an evolutionary trend**. It not only grows in numbers but changes its face each time there is a new technological opportunity or new business model. Let's think about m-learning in two years from now. We can imagine that, besides smartphones and tablets, we will also have smart wearable devices such as smart watches and smart glasses.

"These devices are coming and they will change the ways we look at mobile learning."

David Kelly, Training, Learning, and Performance Consultant

Conclusion:



As a mother, I hope to see m-learning in the most unlikely places, for example, I expect to see a mother who, while watching her son playing football, can be found on her iPad looking at all the information she needs to become a football expert! This is also mobile learning.

Valentina Piccioli, Partner Network Manager, Docebo

M-LEARNING TERMS YOU NEED TO KNOW!



Mobile Application

Most commonly known as an app, is a type of application software designed to run on a mobile device, such as a smartphone or tablet.

HTML5

HTML5 is a W3C specification that defines the fifth major revision of the Hypertext Markup Language (HTML). One of the major changes in HTML5 is in respect to how HTML addresses Web applications. All smartphones and tablets already support some version of HTML5, although there are many differences of detail depending on browser and OS versions.

Just in Time Learning

Just-in-time learning systems deliver training to workers when and where they need it.

Geolocation

Geolocation is used to identify the geographic location of an object, usually a mobile phone or other device connected to the Internet. Knowing an individual's location is a key enabler for the delivery of highly relevant contextual information.

Bring Your Own Device (BYOD)

BYOD refers to the policy of permitting employees to bring personally owned mobile devices to their workplace, and to use those devices to access privileged company information and applications. The term is also used to describe the same practice applied to students using personally owned devices in education settings.

Responsive Design

Responsive Design or adaptive design is one of the advantages enabled by HTML5.

We can now develop a single e-learning module which will work on all devices.

Mobile learning trends and forecast

by Valentina Piccioli

According to research on the mobile learning market conducted by Ambient Insight, the **worldwide market for mobile** learning products and services reached **\$5.3 billion in 2012**. The five-year compound annual growth rate (CAGR) is **18.2%** and revenues will more than double to **\$12.2 billion by 2017**. (Ambient Insight's 2012-2017 Worldwide Mobile Learning Market Forecast).

The most relevant drivers for this impressive growth can be found in the mobile learning market itself (and even the learning market). The evolution of the mobile market is making the penetration of m-learning possible by default: not only are the numbers of people who own a smartphone or tablet growing (the audience is getting bigger), but the way people can buy learning contents is simplified by new direct carrier billing agreements.



But, according to Ambient Insight there are also some catalysts for mobile learning's growth more strictly related to the evolution of the learning market:

- The explosion of mobile learning value-added services (VAS)
- The strong consumer demand for mobile learning
- The large scale tablet adoption in consumer and academic segments

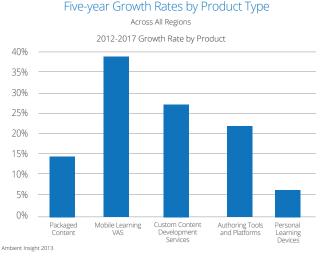
Having stated that the demand for mobile learning is strong, let's examine what consumers in the m-learning market are looking for - notably:

- Packaged content
- Value added services (VAS)
- Custom content development services
- Authoring tools
- Platforms

Consumers are direct buyers for packaged content (B2C business model) and VAS, while enterprises and institutions are also looking for content development services, authoring tools and platforms.

The table below, from Ambient Insight, shows just how fast growth of mobile learning value added service (VAS) is:

2012 - 2017 Worldwide Mobile Learning



Source: Ambient Insight's 2012-2017 Worldwide Mobile Learning Market Forecast

That means that consumers dominate this market at a worldwide level (although there will be differences in the general trends between different geographies).

\$**5.3**B



In examining each geographical area we will compare the CAGR for the mobile learning market and revenue, and then discuss the strongest drivers for each market.

5-year Compound Annual Growth Rate (CAGR) for the Mobile Learning Market		Revenues by 2017	
Africa	38.9%	Asia	\$ 6.8 billion
Latin America	32.5%	North America	\$ 2.1 billion
Asia	21.2%	Latin America	\$ 1.4 billion
Middle East	18.4%	Western Europe	\$ 885.1 million
Eastern Europe	14.7%	Africa	\$ 530.1 million
Western Europe	9.0%	Middle East	\$ 205.4 million
North america	7.6%	Eastern Europe	\$ 193.1 million



Africa has the highest mobile learning growth rate in the world, but **Asia** will generate the highest revenues for mobile learning on the planet. **North America** follows the typical pattern of a mature market: low growth rate, with high revenues generated.

AFRICA

Several countries in Africa have mobile penetration rates at over 100%.

The African mobile telecom market is forecast to grow from a combined value of over US \$60 billion in 2013, to a value in 2020 of almost US \$234 billion – with a compound annual growth rate (CAGR) of 21.27%.

Large rural populations across Africa are now avid users of mobile learning technologies, while relatively few have experienced selfpaced e-learning on a PC.

Telecoms have a significant advantage in developing economies as they are often the only electronic payment gateway.

A continent of mobile operators

At the end of 2Q 2013, the total subscriptions in Africa reached 863 million.

Mobile network operators will generate the largest portion of this revenue.

One of the five major catalysts driving the growth of m-learning is the boom in mobile learning VAS.

Telecoms are major players in the mobile learning market in Africa because of their own app stores, direct carrier billing agreements with device makers, and their mobile learning VAS offerings.

ASIA

At 87% of the population, smartphone penetration is highest in Singapore and Hong Kong, followed by Malaysia (80%), Australia (75%) and China (71%), said a Nielsen report.

The device makers and telecoms are now major competitors in the Asia mobile learning market.

Mobile learning is their primary learning technology and they may never be exposed to other learning products.

The perfect pair: inexpensive smartphones and 4G networks

The mobile internet user base in India will more than treble to 480 million by 2017 from over 155 million today.

It is common in Asia for general-purpose device makers to partner with educational publishers and offer education bundles with digital content preloaded on generalpurpose tablets.

Mobile learning VAS products are now used by over 200 million subscribers in Asia.



EASTERN EUROPE

While the aggregate growth rate is 14.7%, four countries have higher growth rates: Azerbaijan, Kazakhstan, Moldova, and the Ukraine. (Ambient Insight)

The Azerbaijan economy has been markedly stronger in recent years and, not surprisingly, the country has been making progress in developing its ICT sector (Wikipedia).

Ukraine with more than 59 million of users is at number 22 in the worldwide list of countries for mobile penetration. (The World Factbook)

The leading mobile operator in Ukraine since 2001, Kyivstar, is also looking at VAS as an additional revenue stream.



WESTERN EUROPE

By the end 2012, every one of the 24 countries analyzed in this report had a mobile penetration rate above 100%.

There is a high demand for packaged mobile learning content and custom content development services.

Samsung is now a major competitor in the mobile learning market in Western Europe. Samsung began rolling out its tablet-based Smart School solution across the region last year.

One buying behaviour for each country!

Consumers buy educational apps, subscribe to mobile learning value added service (VAS) products, and purchase personal learning devices. The consumer demand for mobile learning across the region has always been healthy and has become strong due to recent direct carrier billing agreements. This is vital for the "app economy" in countries with low credit card usage.

National academic plus EU digitization efforts: in September 2013 the European Union launched the Opening up Education program funded with "tens of millions of Euros".

Bring Your Own Device (BYOD) initiatives are becoming common in the region.



LATIN AMERICA

High-speed networks are rolling out across the region at a rapid rate.

The average mobile penetration in the region is almost 97%. Mobile phone use is extremely high for all socioeconomic groups in the region.

English language learning is in high demand.

The major market-driver is the relatively recent launch of dozens of mobile learning VAS products across the region.

The strategy of delivering educational content through standard mobile phones is particularly well-suited for use in rural areas where educational resources are scarce and fixed broadband connections are unavailable or unreliable. (UNESCO)



MIDDLE EAST

The mobile learning growth rate in the region is 18.4%.

According to the TradeArabia News Service, 73% of all phones in use in July 2013 in the UAE were smartphones. This represents the highest smartphone penetration rate in the world.

In the current mobile learning market in the region, telecoms have a major advantage due to their billing capabilities.

Countrywide academic content digitization efforts are underway in most of the countries in the region.

Bahrain, Oman, Yemen, Qatar, Jordan and Kuwait have growth rates over 50%.

The preference for mobile learning over e-learning is also starting to take hold in academic segments.

Another major catalyst in the region is government mandates designed to increase English proficiency.



NORTH AMERICA

While the growth rate may seem low compared with the other regions in the world, the revenues are extremely high (it's a mature market).

The two major buying segments across North America are the consumer and healthcare segments.

The mobile learning product type that will generate the highest revenues in North America throughout the forecast period is packaged content.

Canada shows an overall growth rate higher than the US.

The Ontario College of Art and Design University (OCADU) has the "Taking Ontario Mobile" (TOM) project, which is researching the state of mobile computing, including mobile learning, and its prospects in Ontario.





Amol is a highly respected e-learning professional and an acclaimed E-learning Solution Sales Consultant. He is passionate about the latest technologies in E-learning, with an in-depth and hands-on understanding of various Learning Management Systems and E-learning technologies. He is a seasoned Learning Management System Consultant with over 10 years in e-learning software and enterprise applications selling and consulting. He brings rich cross-functional experience, passion for innovation and expertise in transforming learning strategy into high quality e-learning solutions.

He has a Master's degree in Business Administration from Mumbai University and is highly passionate about e-learning. During his free time you will find him experimenting with new recipes or travelling to explore new places.

Mobile Learning: The future of learning in India

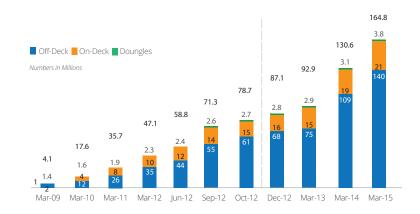
by Amol Shinde

The worldwide market for mobile learning products and services is growing at a 5 year CAGR of 22.7%, and India is no exception.

Given current trends, by 2015, India is expected to be among the top 10 counties when it comes to buying mobile learning products and services - along with the USA, China and Japan.

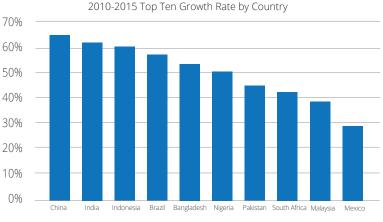
In India, the mobile phone has revolutionized communication. India is now one of the fastest growing markets for mobile phone services, with growing usage and increasing market penetration. As stated in a report published by the Internet and Mobile Association of India (IAMAI) and the Indian Market Research Bureau (IMRB), India will have around 165 million mobile internet users by the year 2015. This is almost double the current 87 million mobile internet users. This means that mobile devices are not only communication devices but channels for interactions and learning.

Future estimate of Mobile Internet Users



2010-2015 Worldwide Mobile Learning Five-year Growth Rates by Country

Across All Product Types



Ambient Insight 2011

Ref: Ambient Insight Report "2010-2015" Worldwide Mobile Learning Market estimate

docebo[®]

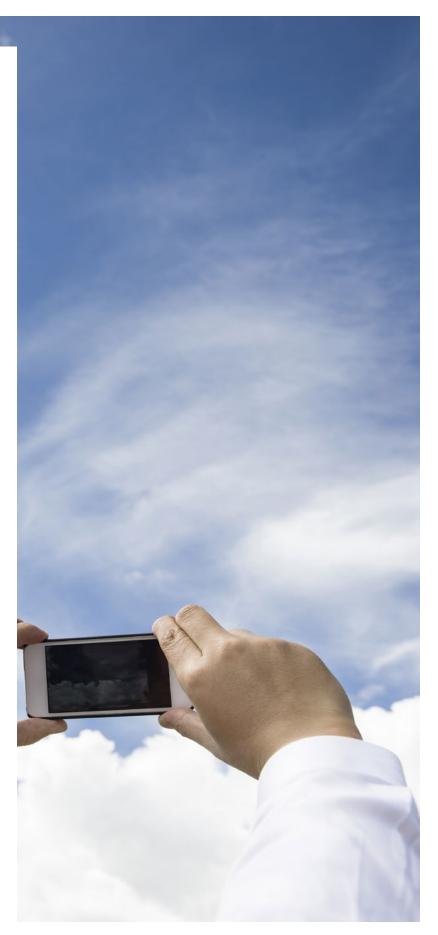


As suggested in a research study conducted by Ambient Insight, India will be the second largest country for buying mobile learning products and services by 2015 with a whopping growth rate of 61.3%. This reflects the fact that the mobile learning space is rapidly evolving in India and playing a significant role in imparting learning. The significance of m-learning is slowly and steadily being realized by L&D and there have been efforts taken towards developing the necessary applications to impart m-learning.

The key drivers behind growth of mobile learning in India are: the increase in market penetration of mobile devices, portability, small size, low price and - most importantly - mobile devices' adaptable technology. The government initiative to distribute Akash Tablets at school has ensured m-Learning will continue to rise in India. Given the statistics available, there is no doubt that m-Learning in India is going to define the future of learning there.

Conclusion

Since India is considered to be an emerging market for mobile, and as millions of people become equipped with mobile devices, this mobile workforce represents a great opportunity for mobile learning in India.







Josh Squires is currently serving as the Chief Operating Officer of Docebo EMEA. Josh has spent the past 15 years researching and implementing creative learning solutions within corporate and higher education environments. With clients ranging from Motorola to Disney, he has been on the designing and implementing stage of a wide range of learning scenarios with customers spanning the globe. Josh has also taught Instructional Technology theory and tools, as a consultant and faculty member, for over eight years in both Corporate and Higher Education environments.

M-Learning Strategies

by Josh Squires

As presented elsewhere in this report, mobile devices have taken the world by storm. The ready availability of highpowered computing in your pocket opens a new world of possibilities for learning. With this massive rise in accessibility comes many new challenges that will be required for the design team to overcome prior to launching your m-learning course.

There are many strategies for integrating m-learning into your corporate learning structure and there are many pitfalls as well. In this section we will discuss the things to avoid or to be aware of and, then, some best practices that you can use within your learning environment.

Common Challenges when developing a mobile learning strategy:



Desktop Learning is not the same as Mobile Learning

This is a common challenge that many learning departments initially assume when considering the addition of m-learning to their organizational learning strategy. The types of e-learning delivered by different media are different. The way users interact with a desktop/laptop is different from the ways users interact with a tablet (I still haven't figured out "right click" on my tablet) or smartphone. Building out your learning needs to take into account not only the technology capabilities and limitations but also the Human Computer Interaction (HCI) affordances of each type of technology. You also need a specific strategy for how you want to deliver the learning being created, based on the delivery technology itself.

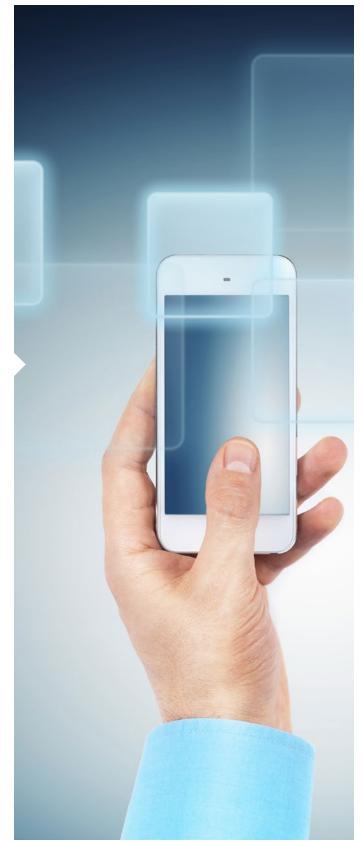
BYOD - Bring your Own Device - This is a term or concept often associated with mobile learning. Basically it means that you design content once and that, no matter how your learners access it, the content will transform to their particular delivery platform. While this is frequently used as one of the main selling points for including a mobile learning strategy into your overall organizational learning strategy, it is a mistake to think that you can design once and have it applicable to all devices.



This concept goes against the very soul of instructional design as each learning experience should be crafted based upon a studied and analyzed methodology. Knowing how your end user will interact with the learning material is almost as critical as the learning material itself. Understanding how your users will be interacting with your learning content is part of the design methodology employed in building high quality and successful learning. While you can build a multi-platform delivery model, you have to design to the least common denominator (typically mobile). This means that you are doing a disservice to the learners. Different physical settings allow for different levels of concentration and engagement. Different technological capabilities require different learning design and interaction strategies. To implement a best practices approach, design your learning based upon a well-thought-out learning strategy and build an instructional strategy around the device(s) you wish your learners to use, based upon this strategy.

The digital divide still exists - Understanding the end user is paramount to building a successful learning strategy. In many parts of the world, e-learning has always (since the late 1990s at least) been a part of many workers' professional development plans. Different learners respond differently to digital learning, based upon how they prefer to learn and the content that is being presented to them. As we are presented with an (overall) aging workforce while new generations are entering the workforce, we are still faced with digital divide issues that began to plague our industry in the mid-1990s. With the emergence of Mobile Smart devices as a common feature of the workplace it makes perfect sense to include a mobile learning component as a core or supplemental part of your organization's learning strategy.

Revisiting the full digital divide challenge from a Learning and Development standpoint is essential. There needs to be a comprehensive strategy around how your learning is approached for tech-savvy learners and how to incorporate your less tech-savvy learners into the fold. This approach is paramount as there are significant differences in how different generations interact and use technology. This has to be taken into account for your m-learning strategy. Generational and tech familiarity gaps exist and the comfort levels of your learners need to be addressed within your m-learning strategy.





Revisit your Learning Strategy

Now that we have taken into account some common challenges when coming up with our m-learning action plan we can begin to strategize methods for integrating m-learning into our overall learning strategy in a well thought out and strategic manner.

Building a learning strategy is hard work, time consuming, underappreciated by most departments outside of L&D/ Training, and often times take years to show ROI. That is the easy part! The hard part is to convince your entire company that the strategy that your team has worked on for years can be enhanced to make their lives easier by adding a mobile element to it. Many learners may have some hesitation to jumping on board the m-learning bandwagon. This is the opportunity to integrate some great knowledge management strategies into your learning strategy.

Integrate your mobile learning strategy into your organizational learning plan

Working for months - sometimes years - around building Key Performance Indicators (KPIs), Performance Objectives, Terminal and Enabling Objectives, and organizing all of these into learning paths and plans can be painful. But, doing all this gives you have a perfect opportunity to revisit these key competencies and objectives and see which ones would be a good fit for an m-learning refresh.

There has been lots of great e-learning over the years from Serious Games and interactive branching scenarios to highly interactive courses built with rapid authoring tools. So it's sometimes hard to understand how to jump into an m-learning path. After all, there are differences between the capabilities of different devices as well as how different users interact with them.

Nonetheless, this is opportunity time. Implementing an m-learning strategy is an excellent chance to reduce time spent on lengthy, time-consuming courses. It's a chance to take some key competencies and rework them to be delivered either in a just-in-time manner (think "job aids") or to develop a series of bite-sized **Learning Pills** that allow quick and easy access to consumable content.



The other great option with mobile devices is that most users of smart devices are familiar with messaging capabilities. Integration of some of the new learning standards such as xAPI/TinCan allows your learning management system to capture this data and add it back to your learners' learning records.



Take your existing organizational competencies, skills, objectives and so on and evaluate what can be broken down into short extremely concise learning chunks (I like the term "Learning Pills") and then build it in a medium that works best for the greatest number of mobile devices (and remember you need to design for the least common denominator). Ideally, small videos or short and not very complex interactive packages work great. Follow them up with a quick knowledge check and you have an excellent standard Learning Pill.

If you've mastered the more basic model of m-Learning Design and have the capability to offer and support some real time interactions, build in a messaging component to your Learning Pills that allows for just-in-time communications with and between your learners to enable a true collaborative learning environment.

If you have the ability to unify the mobile learning environment through standardization of smart phones or tablets, think about taking greater advantage of the features contained within the device. Location tracking or delivering content based upon location, integration of cameras or videos recording best practices uploaded via the phone are great methods of supporting m-learning.

The main design goals of your Learning Pills should be that the direct instruction should never be longer than three to

five minutes. It should include some form of quick knowledge check and it should align directly to your overall learning plan. Using other features within the device are great but this has to be well planned and have specific goals.

Wrapping it all together

Use **m-learning** in conjunction with classroom (live or web based) delivered learning and your traditional e-learning courses. There is nothing stopping you from creating a great blended learning strategy that encompasses a wide variety of delivery methodologies. In doing so, you should be keenly aware of your audience. You should also remember that the learning is designed for specific media and should be aligned to your organizational competencies. The bottom line is that building m-learning programs is all about better enabling learning. Think it through. Get creative - and know your audience.

Information at your fingertips at any time in any place is not science fiction, it is now a reality. M-learning is the logical next step for a ubiquitous learning environment. Learn, train, and understand when you need to.

Josh Squires, Chief Operating Officer EMEA, Docebo



Cindy Pascale is the CEO and co-founder of Vado. She has 16+ years of HR, Training & Development and OD leadership experience and 12 years running talent management, development and assessment companies. Vado is the e-learning courseware provider 'changing the face of learning'. Please visit the <u>Vado website</u> and feel free to contact Cindy about your off-the-shelf management development and employee soft skill development e-learning needs.

Mobile Learning Content Design: 3 Must Haves

by Cindy Pascale

The other day I was sitting on a commuter train and noticed the woman sitting next to me. Without being too obvious in my visual eavesdropping, I noticed she was taking an e-learning course on her iPhone. She finished the course before our destination and gave herself a small congratulatory fist pump.

That woman represents a growing segment of learners — mobile learners. In fact, offering mobile learning is important for a number of reasons as it can drive significant benefits, including:

- 1. A greater number of course completions
- 2. Delivering your performance support strategy
- 3. Engaging your Millennials

According to a case study conducted by Merrill Lynch, mobile learners have a 12% higher completion rate than courses completed on a laptop. Also cited in this study is that the learners completed the training 30% quicker than those using classroom-based learning delivery. The reasons for these two great success statistics can be attributed to two further interesting statistics:

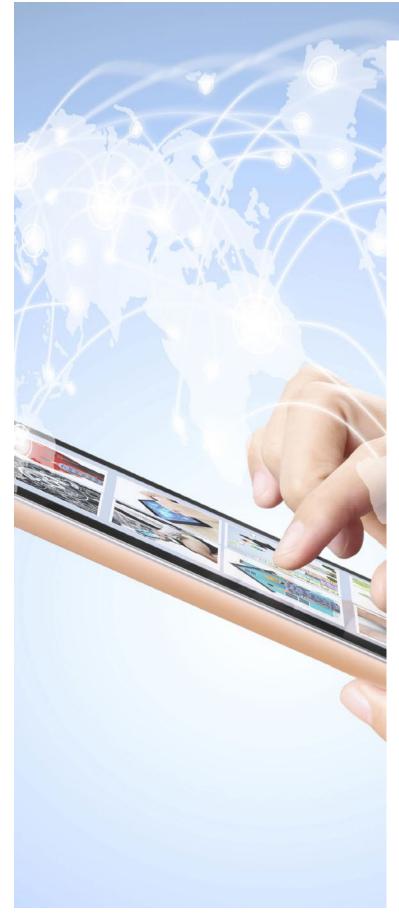
- 1. Mobile learners study 40 minutes more each week by studying everywhere they go.
- 2. Students with smartphones are twice as likely to study between 6a.m. and 8a.m.¹

Performance support is delivering training content at the time and place of need — on-the-job. We have all heard the statistics showing that 70% of development happens on-the-job. By providing learning content that can be accessed while on-the-job, companies are leveraging the natural way a person develops — on-the-job. So, to deliver on your performance support strategy, you will need to adopt a mobile learning strategy.

Or, perhaps you are considering adopting mobile learning to engage the Millennials in your workforce. This is a valid strategy as 36% of the workforce will be made up of Millennials by the end of 2014. These workers have grown accustomed to using their hand-held devices for all their social needs, watching You Tube videos, gaming, banking, shopping online and much more. They have come to expect the same mobile convenience with their on-the-job training. Companies are responding by bringing the training to them - on their mobile devices - where they are comfortable and familiar.

The reasons for adopting a mobile learning strategy are compelling. Yet developing mobile learning content is not as simple as delivering your current e-learning courses on a mobile device. Mobile learning content needs to be designed with the audience and intended use in mind.





Here are three tips to consider when creating or converting your learning content into m-learning content:

1. Short, bite sized learning content. To enable performance support and to keep a learner engaged on a small screen, your m-learning courses need to be short — two to four minutes of learning content. Think of it a little differently than a time stamp — think one discreet learning objective at a time.

2. Videos. Not just videos but high definition HTML videos. Without getting into the technical details, HTML will work on "iProducts" whereas Flash videos will not. And use high definition because your Millennials are accustomed to high definition video games and, just like they have come to expect m-learning, they have come to expect high definition videos.

3. Job Aids. Again, to enable your performance support strategy, provide Job Aids for on-the-job application so that your learners have something tangible to use once they exit the course.

If you incorporate these three design principles into your m-learning strategy, you will be delivering m-learning courses that will meet your m-learners' needs. This should lead to higher completion rates in less time. Another benefit is that, while you cannot deliver your e-learning courses as m-learning courses, you can get a dual benefit and deliver your m-learning courses to your e-learning learners, increasing your return on investment for all m-learning courses created or purchased.

 The <u>Why Consider M-Learning Infographic</u> was created by Michaels & Associated Learning Solutions.

docebo[®]

MOBILE LEARNING GLOSSARY

3G

3G refers to third generation. It is the latest evolution in phone technology, following on from 1G analogue and 2G digital mobile phones. 3G offers high-speed data transfer rates which allows mobile broadband and two-way video calling.

Accelerometer

An Accelerometer is generally used for measuring acceleration. Within a mobile phone the accelerometer detects the motion of the handset, and will auto rotate the display to show in landscape rather than portrait mode when the phone is rotated 90 degrees. This is ideal for viewing photos on the phone screen in full screen mode.

Audioblog

A blog that mainly publishes audio files (music or podcasting) sometimes with text and keywords for search engine optimization.

Bandwidth

Bandwidth (the width of a band of electromagnetic frequencies) is used as a measurement for the amount of data that can be transmitted per unit of time. Any digital or analog signal has a bandwidth. To download a photograph in one second, a higher bandwidth is needed than to download a page of text in the same time.

(SAP Mobile Business Glossary)

Big data

Big data is high-volume, high-velocity and high-variety information assets that demand cost-effective, innovative forms of information processing for enhanced insight and decision making.

BYOD

BYOD refers to the policy of permitting



employees to bring personally owned mobile devices (laptops, tablets, and smart phones) to their workplace, and to use those devices to access privileged company information and applications. The term is also used to describe the same practice applied to students using personally owned devices in education settings.

(Wikipedia)

Bluetooth

Bluetooth technology allows connections between electrical devices without the need for wires. The benefit includes car kits and headsets that can be connected to a mobile phone without the need for wires. Bluetooth is a short range technology, usually working up to a distance of 10 metres.

Chunking

The process of separating learning materials into brief sections in order to improve learner comprehension and retention. (http://www.mobl21.com)

Cookie

A cookie is an information for future use given to a Web browser by a Web server and is stored by the server on the client side of a client/server communication. The information is then sent back to the server each time the browser requests a page from the server. The main purpose of cookies is to identify users and possibly prepare customized Web pages for them.

(SAP Mobile Business Glossary)

Device

In a mobile context, device includes PDAs, Palms, Pocket, PCs, cell phones or any hardware that provides location-independent access to information, applications or services. (SAP Mobile Business Glossary)

Digital Natives

A person for whom digital technologies already existed when they were born, and hence has grown up with digital technology such as computers, the Internet, mobile phones and MP3s. (http://www.mobl21.com)

GPS

Global Positioning System; refers to the use of satellite-to-handheld receiver signals to determine location.

Hotspot

An area where wireless service is made available for Wi-Fi enabled devices or computers to access the nternet.

HTML5

HTML5 is a collection of proposed specifications for the next generation of HTML. Beyond this, HTML5 is used as a short-hand label for all that's new with the Web, including CSS3 and changes to HTTP.

LTE

LTE and its successor LTE-A are cellular technologies that improve spectral efficiency and will push cellular networks to theoretical peak downlink speeds of up to 1 Gbps. Additional benefits include reduced latency. Real-world LTE speeds tend to be under 100 Mbps and early LTE-A trials have peaked at around 300 Mbps in best-case conditions.

Offline

Offline technology - in distinction to online - is used for scenarios with much more local business logic. Online working is only possible during the data synchronization and the changed data then will be stored on the device local. Online means continuously online mobile web access. This kind of access makes sense for scenarios handling time sensitive data, needing only less data input or output without using databases.

Online on Demand

Online on Demand is a cached web access: offline data cache and online access whenever needed.

Java

Most phones these days support Java. Java is a programming language, used for many games and programs such as web browsers and email programs that you can install on your phone.

EDGE

EDGE is enhanced speed for data transfer across a GSM network. It can be seen as an alternative to 3G, and can be used to offer faster transfer rates by networks in areas where they do not have 3G coverage.

mLMS

Mobile Learning Management System (mLMS) – a learning management system for mobile devices.

MP3

MP3 employs a compression technique, with bits of information being discarded to allow data to be compressed into files that are relatively small in comparison with .WAV files, but which retain subjective CD quality.

Mobile Application

A software application that runs in a handheld device such as a smartphone.

Multi-Touch input method

In mobile computing, multi-touch refers to the capability of a touchscreen (or a touchpad) to recognize two or more points of contact on the surface concurrently. The constant tracking of the multiple points allows the mobile phone interface to recognize gestures, which enable advanced functionality such as pinch-to-zoom.

Operating system (OS)

The base software of a computer device; mobile OSs include Palm OS, PocketPC, Android and Symbian.

Podcast

A podcast is a series of digital media files (either audio or video) that are released episodically and often downloaded through web syndication. (http://www.mobl21.com)

QR Code

Quick Response Code (QR Code) is a twodimensional bar code, which can be read and decoded with a camera.

Responsive

Responsive web design (RWD) is a web design approach aimed at crafting sites to provide an optimal viewing experience—easy reading and navigation with a minimum of resizing, panning, and scrolling—across a wide range of devices (from mobile phones to desktop computer monitors). (Wikipedia)

Smartphone

A smartphone is a mobile communications device that uses an identifiable open OS. An open OS is supported by third-party applications written by a notable developer community. Third-party applications can be installed and removed, and they can be created for the device's OS and application programming interfaces (APIs). Alternatively, developers must be able to access APIs through a discrete layer such as Java. The OS must support a multitasking environment and user interface that can handle multiple applications simultaneously. For example, it can display e-mail while playing music. (Gartner IT Glossary)

Touchscreen

A touchscreen allows input to be made onto a device simply by pressing on the screen. Often the UI on the device will offer large icons which all correspond to a particular feature. To open that application you simply touch the screen where the icon is displayed.

Widget

We get the word Widget by combining Window and Gadget. A widget is a screen based control that is used to interact with a website or other systems. Widgets can be buttons, selection lists, sliders, etc.

WiFi

WiFi is short for Wireless Fidelity, and is a term used to describe wireless standards for local network wireless connectivity.

XHTML

XHTML is a reworking of HTML 4.0 designed to work as an application of XML. It allows anyone to create sets of markup tags for new purposes and provides a foundation for device-independent Web access.



About Docebo

Docebo (from the Latin "I will teach" and pronounced "Docēbō") is a pure Cloud Learning Management System (LMS) that over 28,000 organizations have used globally since 2005.

Sold in over 70 countries worldwide and available in over 30 languages, Docebo has been ranked in the world's Top 10 for SaaS elearning solutions providers, and in the Top 3 for B2B LMSs.

Docebo is generally regarded as one of the industry's most comprehensive solutions for training management, and has been chosen by some of the world's most respected companies to achieve operational efficiency.

About the Docebo LMS

Docebo is a product that was designed to be delivered in SaaS as an ecosystem of features and modules that can be enabled or disabled per customer requirement/s. It is extendable and flexible, with a component based architecture. This unique approach means companies can rapidly extend and scale their solution according to needs. What's more Docebo can easily be integrated with your existing IT systems (HR, CRM and other preferred platforms) via an API system.

The LMS is very easy to use and has been widely recognized for its user friendly and modern UI, and UIX. It manages, delivers and tracks: web based training (WBT), instructor led training (ILT), live distance learning, social learning, blended learning, mobile learning, and gamification.

Also with its Mobile app, Docebo delivers learning at the point of need and on-demand via all devices including mobile and tablet.



Why Docebo?

\odot	Easy to use LMS with a modern UI
	Manages, delivers and tracks instructor led (ILT) and web-based training (WBT) activities
1	Organizations can better train their workforce, channels and clients
	Enterprise Cloud Solution (ECS) option allows the LMS to run on a dedicated Cloud instance
	Available in more than 30 languages
 	Robust and extendable in order to meet large sized project requirements





Docebo Mobile enables your workforce with elearning... anywhere, anytime, on-demand

Enable your workforce with just-in-time training directly from their mobile devices

The Docebo mobile app allows you to attend your Docebo-based elearning courses through your Smartphone, and on any mobile device.

Take courses optimized for Smartphone delivery

Access training content on the go

View progress and reports!

Try a **14-day** free trial at www.docebo.com



docebo®

For more information, visit www.docebo.com



www.facebook.com/Docebo



twitter.com/docebo



www.linkedin.com/company/docebo-srl