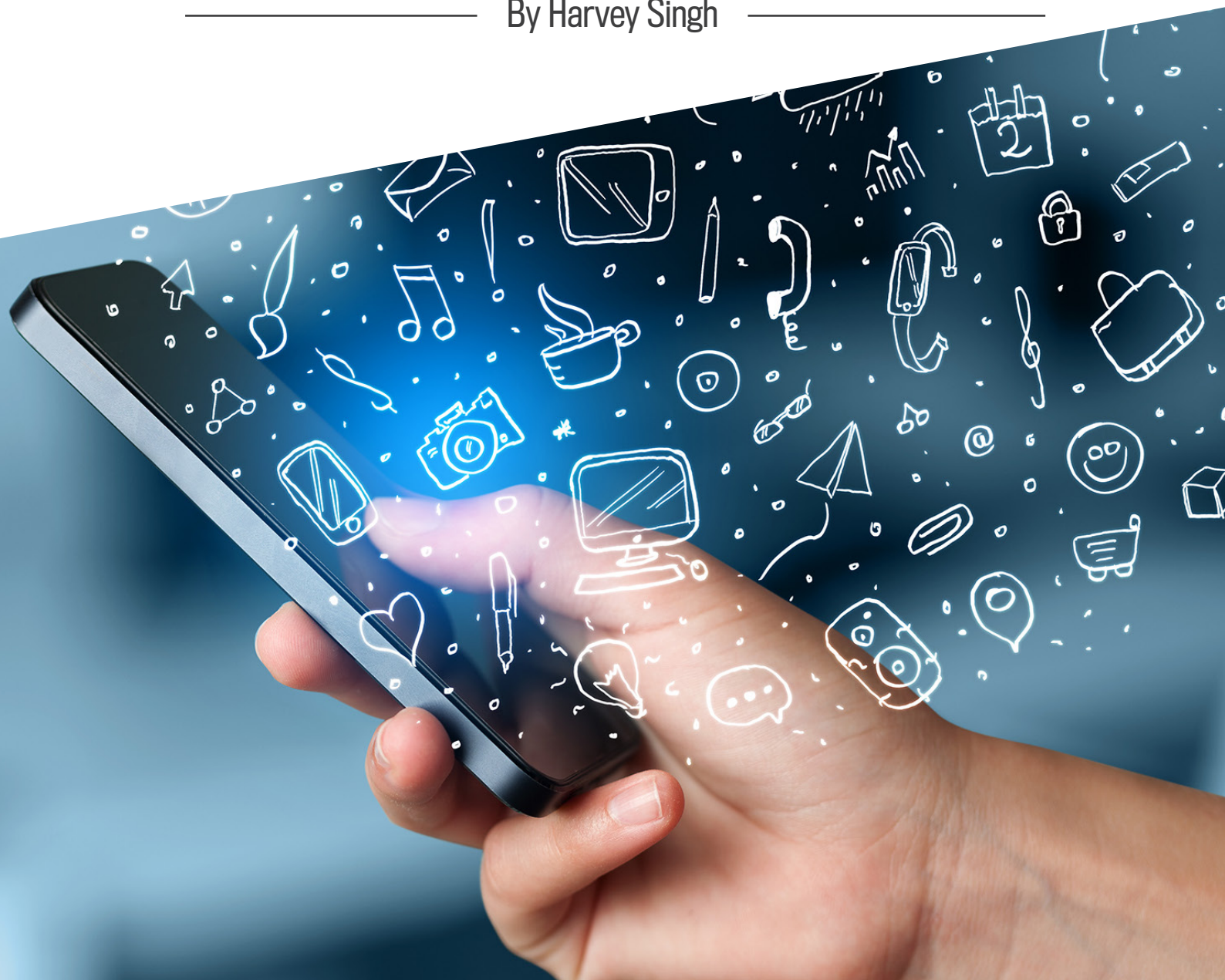


MOBILE LEARNING TRENDS

By Harvey Singh



Mobile devices are outpacing traditional desktop environments when it comes to accessing the web. In fact, 60% of search queries are now done through mobile devices. (Source: SearchEngineLand) This trend has spilled over into all digital industries including online education. Worldwide revenues for Mobile Learning products and services reached \$8.4 billion in 2014. With a global five-year compound annual growth rate (CAGR) of 11.3%, revenues will reach \$14.5 billion by 2019 according to Ambient Insight.

Educational, training institutions, and eLearning content publishers must adapt themselves to the new technological landscape in order to keep their courses relevant to today's learners. The rise of mobile devices, along with the increasing number of ways people communicate, receive information, and entertainment, has created exciting new ways to develop educational courses that are both effective in reaching educational objectives for teachers and rewarding to the online learner. This paper will serve as a guide for managers at learning organizations into ways to adapt courses for the multi-screen and multi-device app based environment that today's learners engage in. In addition, it will also highlight growing new technologies that can be incorporated into mobile learning apps, such as gamification, Augmented Reality (AR), Virtual reality (VR) and Artificial Intelligence (AI).



RESPONSIVE LEARNING DESIGN TO SUPPORT MULTIPLE DEVICES

The key aspect in creating a successful mobile learning experience is to make the content accessible through a variety of different devices and screen sizes. Different devices and different operating systems have different requirements that must be met in order so that they can support the course content. Knowing the devices that learners use to engage in their courses is important in developing effective online education.

Multi device access to learning content

One individual learner may use a computer, their smart phone, and a tablet to access their educational courses. So it is important that this content remains consistent and accessible across a wide variety of mobile and desktop systems. The site must be built to be responsive, meaning its content and important functional elements such as buttons and links, are easily viewable and usable on smaller mobile screens.

Multi-screen usage

Our eLearning courses are designed from the ground up to be ready and responsive to different screen sizes, so there is no need to create multiple versions of the same site to remain compatible across different devices.

Flash to HTML5

HTML5 enables sites to be responsive to a variety of different devices and compatible with different web browsers and operating systems. Because of this versatility, HTML5 has replaced Flash as the programming language best for responsive design. Be aware that Flash is no longer compatible across all mobile devices, so sites still using Flash will not be accessible to all mobile users.



MOBILE LEARNING FAVORS MICRO LEARNING

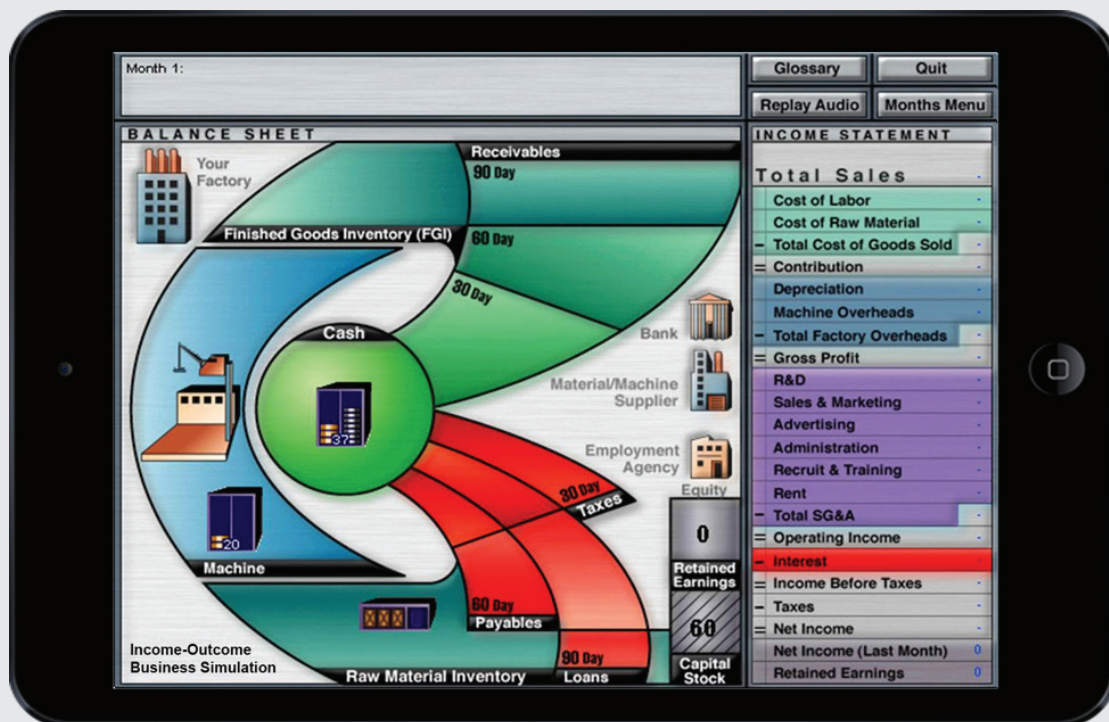
It is no secret that the way that learners access information has also changed their attention span and learning habits. In the past eLearning courses were designed to be 30 minutes to an hour with a lot of information to be delivered per learning session. However, this design was based on learning through traditional desktop environments. These courses were developed before there was a huge influx of information competing for a user's attention. In today's more mobile device centered environment, information is best communicated in smaller more time efficient segments. This new shorter length design format has a double advantage; it is not only easier to use on mobile screens, small sections are easier to update. This helps ensure not only that learners can learn from anywhere they want to, but also that the education they receive is up to date and accurate. Micro learning has become a core concept in modern eLearning design, and it will only continue to become more prevalent as mobile devices become the primary way learners get their information.



SOCIAL MOBILE LEARNING

In the past, eLearning was seen as a distinctly solo endeavor. Online courses have tended to lack the opportunity for collaboration and interaction that traditional real life classes offer. The ability to discuss, ask questions, and study is crucial to education. Thanks to today's technologies, the online learner does not have to miss out on the social aspects of learning.

The rise of social media platforms such as Facebook, has made it easier to connect learners to their peers and teachers. Leveraging the concepts popularized by social media sites, Social Learning Management Systems, like Instancy, provide collaborative learning features that enable learners to search and connect with peers and experts. With these technologies, learners can participate in real time discussions through discussion forums. Each learner can not only consume eLearning content, but can contribute and share videos, documents, training events, and other resources. Even a busy professional, with other responsibilities and obligations can get help and guidance on their own schedule through their mobile devices. Online learning does not have to be a solitary experience; thought provoking classroom discussions are now available in a digital environment.



GAMIFICATION IN MOBILE LEARNING

A successful online learning program involves more than just making educational content digitally available; it also means adapting education into formats that best fit the modern learner. Gamification is a great way to increase learner engagement, retention, and motivation. Gamification is the process of turning parts of an education program into playable interactive games. This not only makes courses more enjoyable, but also adds variety and new ways to communicate a class's subject matter.

The interactive technology behind game design can be used to create real world simulations that teach a user how to practically apply what they learn in the class. Moreover, games provide rewards, such as points, new levels, and leader boards that provide encouragement, and facilitate a learner's innate desire to compete and achieve. Games can be designed to increase in difficulty as a user progresses. This provides a friendly, less intimidating way to challenge learners and teach the more advanced concepts of a course. A well-made educational game will sufficiently challenge a learner to keep them playing, while at the same time increasing their confidence and desire to learn.

Educational mobile gaming apps have been highly successful, because they provide a fun interactive learning environment through mobile apps, which are something that the majority of today's learners are already extensively familiar with.

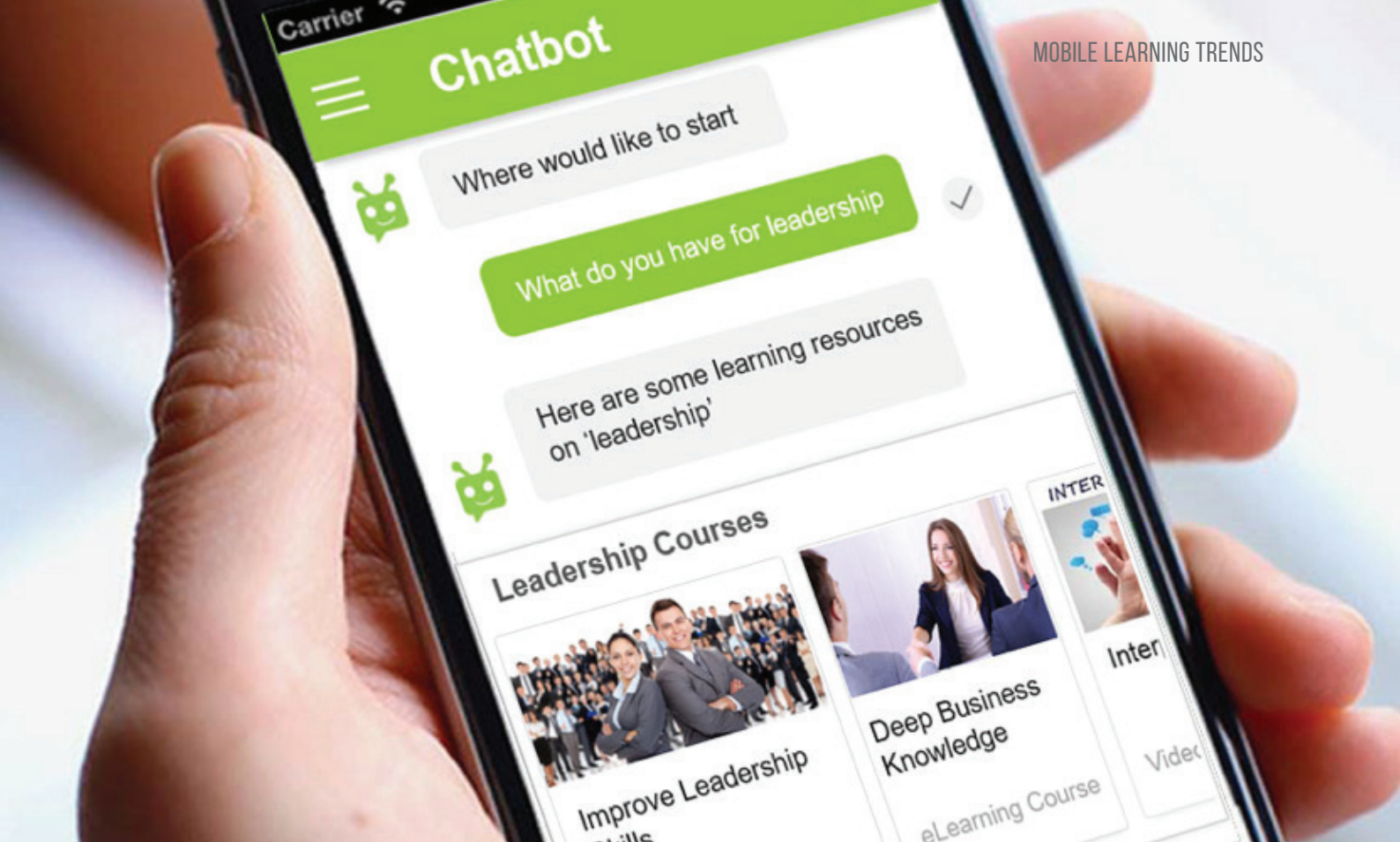


MOBILE LEARNING ANALYTICS AND THE EXPERIENCE API

Mobile and online learning doesn't just benefit learners by providing them with convenient and dynamic ways to take their courses; it also benefits educators by giving them access to detailed learner performance analytics. This valuable data can be used to ensure that learners are on the right track, and how to fix problems if they aren't. These powerful new analytic tools enable educators to find the best ways to develop new courses and enhance existing ones.

The analytic data that these built-in tools provide are also important because they show educators an accurate picture of how learners behave as they interact within the courses. Educators and course designers can see how long learners stay on an app, when they access the courses, and how user's flow through the pages and components of the app. In addition, these tools also show technical data related to app crashes, download figures, and many more reports related to lifecycle metrics.

The highly detailed data that these tools are able to uncover are important because there are often discrepancies between how learners are thought to behave versus how they actually behave. For example, a class of learners who went through an educational course over a specific subject area, may perform poorly on the digital module that covers that same material. By knowing where the gaps of knowledge are, and what the learners are having issues with courses can be successfully improved. Designing courses based on experience API is an exciting new frontier in creating highly effective educational material.



USE OF ARTIFICIAL INTELLIGENCE IN MOBILE LEARNING

In addition to previously mentioned features such as multi-screen adaptation, gamification, and collaboration through social learning, artificial intelligence is another new technology aiding educators in enchanting online learning. More specifically artificial intelligence in the form of interactive chatbots, is being used to educate and engage online learners.

From the time of Socrates, it well known humans learn through discussion, debate, and conversation. Digital learners do not need to miss out on these valuable interactions. Chatbots, with natural language processing and conversational user interfaces, allow these

learners opportunities to receive feedback and ask questions in real time. The AI that powers chatbots adapts to, and learns about, an individual learner's learning tendencies. This allows for a highly customized learning experience capable of effectively educating in a variety of different learning styles.

Artificial Intelligence is a rapidly evolving technology being implemented in a variety of fields. It is another example of technological advancements made in industries outside of education that can be effectively applied to eLearning systems. For instance, chatbots created for customer service have been developed to anticipate a user's needs. This capability can be used to find new ways to help learners. AI technologies that are capable of understanding facial expressions, nuances in syntax, and cultural considerations can all be used to create a more customized personal experience for online learners. As AI becomes more sophisticated the ways it can benefit eLearning will only grow.



AUGMENTED REALITY (AR) AND VIRTUAL REALITY (VR)

Another example of technological advancements that can be incorporated into online learning are Augmented Reality (AR) and Virtual Reality (VR). Augmented reality is technology that superimposes digitally rendered content (mainly imagery) onto a user's real world view. Virtual Reality creates an entire digital world that user can interact with and explore in much the same way they do in real world environments. They both offered new ways to provide levels of engagement and customization to online learning previously seen as impossible.

Augmented reality uses a variety of devices from smartphones, wearable technologies (devices like Fitbit and iWatch, for example), and laptop accessories such as web cams and mics to add to a learner's real world experience. This allows more ways to create engaging educational models and instructional materials. For example, augmented reality can be used to help a healthcare learn about bone structure. A real life skeleton model can be displayed and the augmented reality system can label its parts as the learner looks through the model.

Virtual reality works differently in that it replaces reality entirely with a digitally rendered environment. This can transport learners into places of the world they would otherwise never have access to. For instance, a learner can learn about Rome by taking a virtual tour of ancient ruins in 3D, from the comfort of their home!

SUMMARY

In conclusion, these exciting new advancements in technologies are creating new ways to create effective online education courses. Creating a branded mobile app is the key way in which educators can make their educational material accessible to the modern online learner. These mobile apps allow educational organizations to make their products available through direct download from the Apple Store and Google play so that the learner can have access to education in the palm of their hands.

Creating an effective online learning course is more than just making content available across different screens and devices. The key to delivering the best possible learning experience is to create uniquely branded mobile app that educational institutions can customize to meet their learner's needs. More specifically, the mobile app should be a branded native app that has all the functionality and behave like widely used apps such as Facebook, LinkedIn, and gaming apps. These mobile learning apps will be designed to give each individual learner a unique username and password, so they are able to access all their material and completed work, and are always able to pick up where they left off in a course. Moreover, these mobile apps allow for social learning features and allow learners to connect with other learners and teachers no matter where they are in the world.

Educational institutions have new opportunities for revenue streams though in-app purchases, and extra features such as access to more educational games. New products can be developed to take full advantage of the various features mobile apps can offer. By creating mobile apps, multi-device content, short learning modules, and using newly advancing technologies, educational courses are able to add diversity to their product offering and able to serve customers with a variety of different learning styles.

To learn more, please click

[Instancy Mobile Learning Platform](#)