

eLearning as differentiator

Constant learning at affordable cost for healthcare professionals

Services with more grip

Today: eLearning.
As staff can't leave patients,
training comes to staff.

The importance of eLearning in healthcare

→ The healthcare industry is rapidly transforming, and caregivers have to keep up with training and certifications. eLearning methodologies enable them to do so without having to leave their place of care for a long time.

How does the healthcare workforce stay up to date and right by their patients' side?

→ As eLearning can take place anywhere, continuous education is made a little more practical in the demanding worklife of healthcare professionals, while also being highly cost-conscious and conducive to all types of learners.

Executive overview

eLearning is meeting demands that arise due to constantly changing trends in healthcare

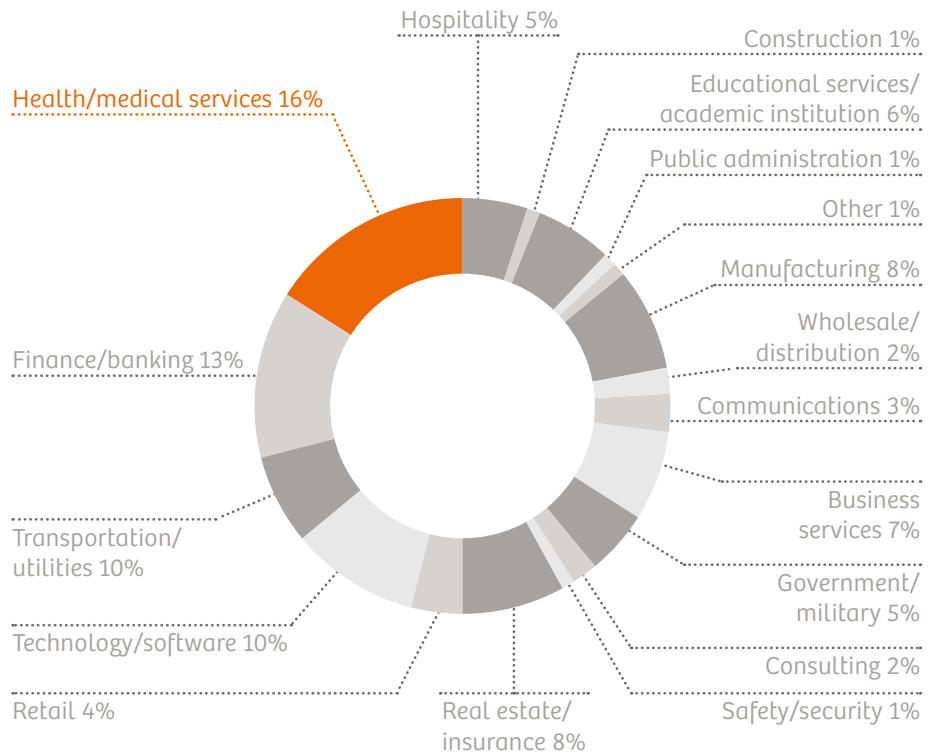
Keeping up to date with the latest developments and getting yourself up to speed with the newest technologies and applications is a matter of staying relevant – for most professions. For medical professionals it is much more than that, as it's a matter of life and death. Continuous training and education is not only a "nice to have," but absolutely necessary for anyone in the healthcare industry. The reason is quite simple: knowledge and skills have to not only be maintained, but must also be regularly expanded and updated.

Reason enough why eLearning companies are providing an enormous amount of concepts, and learning platforms are "popping up" all over the place, offering their services to the healthcare industry. This need for all healthcare providers has been identified as a central theme to be able to enable better outcomes at lower cost. A fundamental question is: Is eLearning the solution that will solve the problem of lacking focus on education, or is it just a supporting vehicle to deliver knowledge?

It seems as if many healthcare players (see chart), including Siemens Healthineers, are focusing on providing eLearning platforms and interconnected learning tools. But can these offerings provide value without a substantial focus on substantial content or must both go hand in hand?

Industrial classification

Respondent profile by industry
(weighted per Dun & Bradstreet)



Source: Training Industry Report 2015,
<http://pubs.royle.com/publication/?i=278428&p=22>
last visited September 8, 2016

Key challenges

- provide employees with regular updates on developments in medical sciences, technologies, and techniques
- adapt workforce recruitment, planning, education and training strategies to the mobile eLearning world
- maximize both technical and clinical expertise with measurable results
- develop and offer regular eLearning courses suitable to the staff's individual requirements regarding their own development and career plans

Healthcare professionals need continuous learning plans. Every single one of them.

→ Healthcare providers are being asked to provide these, but often are lagging behind in terms of concepts and delivery. The reasons are quite multifaceted.

Why can eLearning be more effective than other forms of training?

→ eLearning is well suited to deliver latest knowledge and training, as it can be individually delivered, enhanced with video formats and interactive elements. Going into more detail, this means, for instance, that the learning module can be paused and replayed until the participant has fully grasped its essentials.

Trends **Healthcare professionals' learning triad: maintain, expand, update**

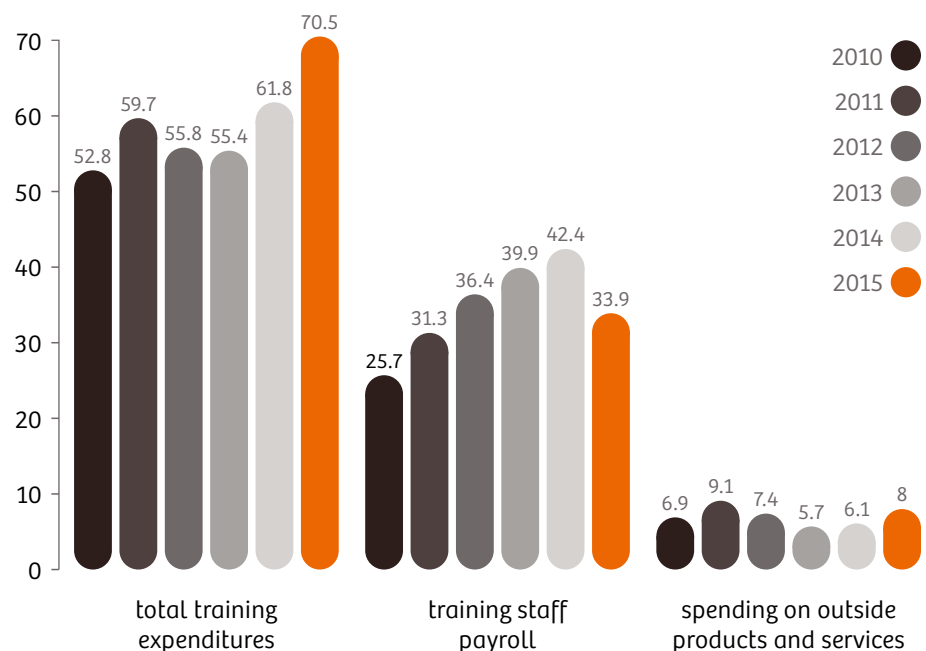
Healthcare employees are notoriously busy and hard-working with lots of daily work-related stress, as it's the patients' lives they are caring and being responsible for 24/7. Under these circumstances, finding time for training is often easier said than done, especially for those whose roles in the hospital or clinic are invaluable. These caregivers cannot easily take time off from work to attend a training course for many hours or even days; sometimes the request is even to travel to another city.

A further challenge is that even what's considered a best practice in the profession can change drastically in just the span of a decade. And continuous training being mandatory for healthcare professionals is not just a meaningless figure of speech. In most countries worldwide, members of staff are required by law to take several course credits every year in order to maintain their status as active and well-educated practitioners with in-depth and up-to-date standards of knowledge. Thus, it is no wonder that US training expenditures have been constantly rising since 2010.¹

Taking all these circumstances into account, it should be noted that traditional approaches to medical training have several drawbacks. The cost of establishing and maintaining physical training centers, for example, is high, as is the difficulty in meeting changing demands due to constantly changing trends in disease treatment, medical technology, and drugs. Even more important is the issue of time, or rather its notorious lack thereof.

¹ Training Industry Report 2015, <http://pubs.royle.com/publication/?i=278428&p=22> last visited September 8, 2016

**Training expenditures
2010–2015**
in \$ billion

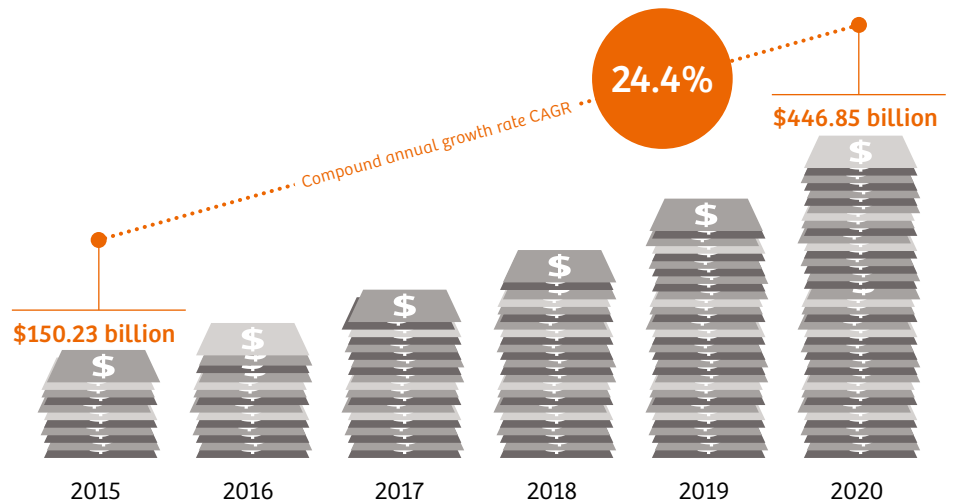


Readiness and opportunities

Future prospects are more than promising – if eLearning is done right

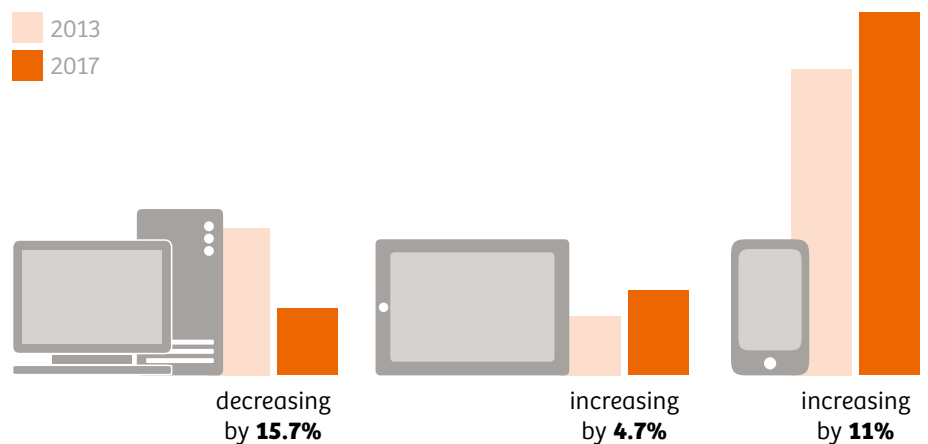
The current speed of change means that employees need to be trained continuously in order for companies to avoid the dangers of being out-thought and out-manuevered by competitors. Reason enough for the fact that online learning, also known as eLearning, is booming. Markets and Markets forecasts the global smart education and learning market to grow from \$150.23 billion in 2015 to \$446.85 billion in 2020, at a compound annual growth rate (CAGR) of 24.4%. In terms of regions, North America is expected to be the largest market in terms of market size, while Europe and Asia Pacific (APAC) are expected to experience an increase in market traction during the forecast period. Besides, APAC is expected to experience a high growth and adoption rate in this market.²

² <http://www.marketsandmarkets.com/PressReleases/smart-digital-education.asp> last visited September 8, 2016



Another big advantage of eLearning concepts is the facile cost-effective possibility to incorporate interactive and multimedia content into the training curriculum. And this is something especially important for the healthcare industry, where images and visualized learning activities play an extremely important role (consider anatomy, organ structure, X-rays and ECGs, to name just a few cases where visual understanding is necessary). In addition to this comes that eLearning is subjected to the influences of sales trends related to smart connected devices and the Internet megatrend (that is, the spread of the Internet in the world). According to IDC, the number of non-connected stationary PCs will fall from 28.7% of the device market in 2013 to 13% in 2017. Connected tablets will increase from 11.8% in 2013 to 16.5% by 2017, and the occurrence of smartphones will increase from 59.5% to 70.5%.³

³ <https://www.docebo.com/landing/contactform/elearning-market-trends-and-forecast-2014-2016-docebo-report.pdf>
last visited September 8, 2016



Consequently, the global eLearning market in healthcare will continue to grow steadily in the future. The increasing prevalence of lifestyle-related conditions, of the growing mobile devices market, and the increasing number of people willing to pay for better health support will add to the demand for primary care and thus fuel the global healthcare eLearning market. Now it's time for healthcare organizations to jump on the bandwagon, as times of pure classical classroom training are definitely over. Today's healthcare professionals are becoming more mobile and spend more time online than ever before – assumed, the content provided is highly valuable and up to date, and in best case scenarios developed from healthcare and eLearning experts who know exactly what knowledge and support is needed in the real world of effective medical care.

Key advantages

- healthcare professionals with different learning styles can take courses at their own pace
- cost reduction in regards to setup, update, and running of courses compared to traditional classroom-based learning
- rapid employee orientation for (new) staff concerning company policies and updated procedures
- interactive and multimedia capabilities can be easily incorporated

Learning is not “nice to have.”

It's mandatory and an obligation towards patients.

→ eLearning has great potential to support health workforce capacity and knowledge building – with direct charge of healthcare institutions' development and reputation, if rolled out correctly.

How to enable eLearning in your institution?

→ Good preparation is half the job. Healthcare institutions should first listen to care providers, their workforce. And secondly it is highly important to trust in experts' experience in realizing technical platforms and training courses.

Challenges of implementing eLearning

Establishing professional eLearning platforms and courses within such complex constructs like healthcare organizations with its hundreds of end users and different facilities can't be achieved overnight. These are ambitious projects, which need sufficient scheduling time, engaged staff, the right courses for all different types of users, and proper roll-out plans – not to forget the corresponding budget and experts who are taking ownership which truly is a challenge in itself.

Another important aspect is dispelling fears around using IT-based courses and IT itself, for non-PC users and those trying to attend courses in a language differing from their native tongue. After hurdles like these are overcome, it comes to identifying who exactly would benefit from which training and finding time to complete the training. Not to mention the constant stream of innovations that develop on the infrastructure side (hardware/software/instructional design) that can make it difficult for providers to constantly re-create existing content.

Necessities

Unbeatable advantages vs. healthcare institutions' lack of speed

According to a recent World Health Organization (WHO) report, the world needs 7.2 million more healthcare professionals to ensure adequate global health. To make up for this shortfall, millions of new healthcare professionals need to be trained. The use of new technologies to make this training more cost-effective while making no compromises on quality is being touted by a growing number of senior medical educators.⁴

As nowadays the focus has shifted from a teacher-centered model to a learner-centered one, today's eLearning offerings are fittingly providing stronger learning motivation and interactivity. The good thing about this is that interactivity maintains learner interest and provides a means for personalized learning and reinforcement. Latest evidence suggests that eLearning is more efficient in most cases because learners gain knowledge, skills, and attitudes faster than through traditional instructor-based methods. This efficiency translates into improved motivation and performance. In addition, the use of eLearning is associated with improved retention rates and efficient use of content.⁵

⁴ <http://www.trainingindustry.com/e-learning/articles/the-5-as-of-elearning-benefits-in-health-care-education.aspx>
last visited September 8, 2016

⁵ <http://www.formatex.info/ict/book/147-153.pdf>
last visited September 8, 2016

Expertise **Staying up to date – on any level, at any time, and anywhere**

Continuing Education (CE), as currently practiced and including eLearning as one part of the giant “CE cake,” does not focus adequately on improving clinician performance and patient health. There is still too much emphasis on lectures and too little emphasis on helping health professionals enhance their competence and performance in their daily practice. Therefore, healthcare institutions run the risk that physicians, nurses and other health professionals will lose the ability to maintain and improve their knowledge and skills throughout their careers in order to provide safe, effective, and high-quality healthcare for their patients.

With Internet-based technology, health professionals can find answers to clinical questions even as they care for patients, but CE does not encourage its use or emphasize its importance. While studies show that interprofessional collaboration, teamwork, and improved systems are key to high-quality care, accrediting organizations have not found ways to promote teamwork or align CE with efforts to improve the quality of health systems.

Focus ... **... on continuously educated staff – and on new knowledge creators**

Addressing the internal workforce’s learning and training needs as well as staff’s expectations is a clear advantage, because if this is done professionally and with a long-term perspective and making full use of latest technology and applications available, know-how and skills are always up to date. All of this means that retention rates can increase significantly while patient throughput is rising, which in the end minimizes overhead burden and therefore optimizes financial performance and reputation at once (see chart). eLearning can be a distinct and differentiating investment in your organization and its workforce. Especially in a knowledge-based profession such as medicine, where new developments are constant, staying up to date is crucial, and time being a very scarce resource eLearning can have a tremendous impact on the cost, convenience, time saved, reliability, and accountability of your training and, ultimately, patient care.

- Lack of inspiration
- Lack of tools
- Lack of opportunities
- Lack of training and education



Training and retraining as a top priority in staff retention strategies

The average cost of replacing an employee amounts to fully 20% of the person’s annual salary. In the healthcare industry, employee turnover is especially costly: as the rate of turnover increases, the quality of patient care significantly declines.⁶

⁶ “Four Employee Retention Strategies in Healthcare,” Jami Cooley <https://www.ceu360.com/4-employee-retention-strategies-healthcare/> last visited August 11, 2016

Siemens Healthineers Services testimonial

Whatever your staff requires for continuous education and training: Siemens Healthineers Services is aware and strives to support.

“ It’s not an easy business, the education business, especially in healthcare. I don’t believe I have ever worked in an area which is more prone to change than education and training. Especially nowadays when we have all of these new players entering the healthcare arena who are absolute experts in didactic concepts and versatile digital training platforms – sometimes it’s just overwhelming. At Siemens Healthineers we love tackling challenges. And I personally embrace the fact that I have the chance to shape the future of training and education in healthcare with digital concepts and eLearning-based activities as described in this piece. It’s our knowledge as a company, the fantastic group of globally operating Siemens Healthineers application specialists that make the difference in our education offering. And as a global player in the medical imaging and diagnostics equipment arena, I believe we can truly make a difference by addressing the challenges shared with you here. ”

.....
Dr. Janina Beilner,
with ten years’ experience at Siemens Healthineers



Staying on top of chances and advancements

→ eLearning can be the differentiator in providing high quality and latest know-how and skills for all healthcare professionals.

An enabler for future healthcare learning?

→ It surely is, but it is and will be expanded by personal interaction, mobile learning, and specified learning apps which are gaining interest and importance on all sides.

.....

One way to always stay on top of the rapidly changing and growing healthcare market is to implement a business strategy that maximizes the synergies between lifelong learning and workforce productivity. However, without appropriate technological support, training programs are less effective. Research has shown that eLearning proves to be an excellent way to achieve quality results in a short timeframe. Learning which is delivered online, within the context of continuous education, is therefore considered as a strategic part of training and education plans for healthcare professionals.

Siemens Healthineers has realized the growing demand for clinical and, in the best case scenario, highly skilled staff. Siemens Healthineers has also developed suitable offerings right at hand so that the right people are equipped with latest know-how enabling them to utilize medical devices and diagnostic laboratory equipment to their full potential. Whether you want to learn about recent advancements in cardiac treatment or explore ways to diagnose and work with patients remotely, there is always an option.

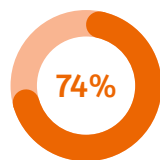
Dedicated offerings ensure that healthcare professionals stay abreast of changes

This is why Siemens Healthineers have designed Education Plans, which include stand-alone and separately designed contracts assigned to the Education Services portfolio. We offer these Plans to healthcare providers worldwide alongside a possible system purchase or as a stand-alone offering – as Education Plans are developed to help healthcare professionals to fully exploit the capabilities of Siemens medical equipment to achieve maximum efficiency in the clinical routine and in all episodes of care.

An Education Plan bundles different elements of the Education Services portfolio in a comprehensive package which is flexible and adaptive to changing needs and state of healthcare providers' knowledge. It is always an agreement with a long-term perspective: either with a fixed duration of several years or with a duration of one year including automatic renewal. As opposed to selling single trainings ad hoc, Education Plans focus on a comprehensive training concept targeting entire departments.

Whatever a healthcare institutions' applications, workflow, or IT requirements are: Siemens Education Plans or offerings like PEPconnect are at hand, and well received by increasingly more users, employers in the sector are more and more prepared to these developments, as used learning technologies in 2014 show.⁷

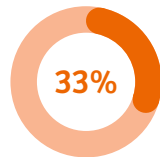
⁷ <https://elearningindustry.com/elearning-statistics-and-facts-for-2015>
Last visited September 8, 2016



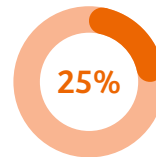
of companies currently use **learning management systems (LMS)** and virtual classroom/webcasting/video broadcasting.



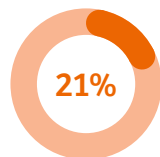
of companies currently use **rapid elearning tool** (ppt conversion tool).



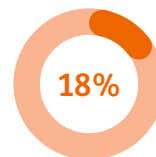
of companies currently use **application simulation tool**.



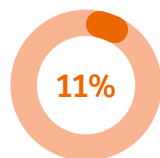
of companies currently use **learning content management system**.



of companies currently use **online performance support or knowledge management system**.



of companies currently use **mobile applications**.



of companies currently use **podcasting**.

In a nutshell

eLearning

- keeps staff up-to-date regarding continuously developing demands
- has a positive impact on healthcare organizations by helping them be consistent with legal demands and new patient populations through highly educated staff
- reduces training budgets and costs (hardware/software/training personnel/real estate)
- puts human resources, recruiting, selection, and onboarding in a more manageable situation

Gateway to future learning and new content creators

→ As the medical field is one where the benefits of eLearning in form of clinical compliance and continuing medical education can be seen immediately.

An enabler for future healthcare learning?

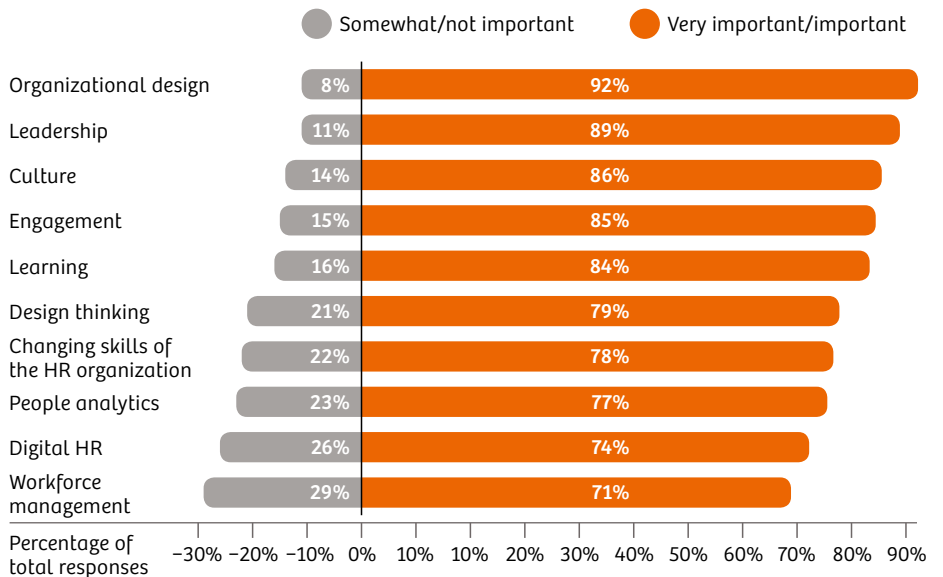
→ Today, employees at all levels expect dynamic, self-directed, continuous learning opportunities from their employers. eLearning surely is one way to achieve this, but the assumption is prevalent that this professional training will be expanded by mobile learning and specified learning apps.

The pressure on organizations to improve learning and development continues to intensify. Advances in technology, shifts in demographics, and the constant competitive necessity to upgrade workforce skills are disrupting corporate learning. These forces are pushing companies to develop new ways to put employees in charge of the learning experience and foster a culture of learning throughout the organization.

While many organizations are struggling to adapt to these challenges, high-performing companies are seizing the opportunity to promote a new culture of learning, upending traditional models and transforming how employees learn. These organizations are adopting new mind-sets, fundamentally rethinking what “learning” and “development” mean in the context of their business. They place the employee at the center of a new architecture and new vision that treats learning as a continuous process, not an episodic event, and as a company-wide responsibility, not one confined to HR.

One reason why according to Deloitte’s Human Capital Trends survey from 2016, learning is on the fifth place within the top 10 trends ranked in order of importance.⁸

⁸ Deloitte Global Human Capital Trends 2016: Graphic: Deloitte University Press, DUPress.com



The reverse side: Limitations of eLearning

Despite the strong shift toward employee-centric learning, many learning and development organizations are still struggling with internally focused and outdated platforms and static learning approaches.

1. Firstly, and as prerequisite number 1, the technical infrastructure must be up to date and run like clockwork, as today the cloud is changing the way organizations, employees, and partners interact and collaborate. Using cloud technology facilitates greater collaboration and increases organizations' efficiency and effectiveness. But first of all, healthcare organizations like all other cloud users have to evaluate and build up a future-proof and user-oriented internal and external cloud structure that meets the highly demanding security requirements in the healthcare sector where all data is nothing but sensitive.
2. Secondly, there surely are some topics like, for example, functional brain imaging and complex non-invasive surgical procedures where average healthcare professionals can only scratch the surface of a topic and aren't able to talk more detailed through issues with other professionals. Nowadays, a lot of diversity training is offered via eLearning, but it should never be the totality of the training provision because of time and funding resource issues. Well-thought-out, eLearning is fine for some aspects of education, particularly theoretical elements. But for topics that demand a far more sensitive and personalised approach, like dementia care, it is not the best way as in this special case seeing the person and issues like the individuality, communication or problem solving must happen by means of face-to-face training that is interactive and based on group learning and discussion.
3. Furthermore, there is ongoing duplication of resources right across the sector, with varying educational institutions creating similar content which results in reduced take-up. This cries out for an intelligent metasite which accumulates all available resources.⁹

Learning: the learning curve is also an earning curve

Employees at all levels now recognize that "the learning curve is the earning curve,"¹⁰ and they are demanding access to dynamic learning opportunities that fit their individual needs and schedules.¹¹ Millennials and other young employees have grown up in this self-directed learning environment. They expect it as part of their working lives and careers, and they will move elsewhere if employers fail to provide it. Already, 30 percent of executives in Deloitte's survey see learning as the primary driver of employee development.¹²

A few more steps have to be walked on the eLearning path

Supporting this new vision, learning and development organizations at these innovative companies are adopting new and expanded learning architectures. They see their role as not simply to push out content they have developed, but to enable employees to access content from a wide range of internal and external sources to create individual learning programs. To facilitate the effort to help employees "learn how to learn," L&D teams are building internal knowledge-sharing programs, developing easy-to-use portals and video sharing systems, and promoting collaborative experiences at work that help people constantly learn and share knowledge.¹²

All indicators show that eLearning and the health industry are poised to go hand-in-hand, since benefits from eLearning approaches are not just related to cost savings, but also to increased efficiency, convenience, and reach. Nevertheless, educational eLearning is still a niche, but with large growth rates (the largest of all other eLearning segments), attached to the health industry, one of the largest industries worldwide.¹³

So, as a conclusion: eLearning can solve the problem of lacking focus on education if the supporting vehicle to deliver that knowledge is well-thought-out and realized from internal and external experts, focusing on providing continuously expanded and regularly updated eLearning platforms with interconnected learning tools that bring together the best of all education worlds. A demanding, but feasible task.

⁹ <https://www.theguardian.com/healthcare-network/2015/may/11/e-learning-in-healthcare-benefits-challenges-and-limitations>
last visited September 8, 2016

¹⁰ <http://joshbersin.com/2016/04/the-learning-curve-is-the-earning-curve/>
last visited September 8, 2016.

¹¹ <http://www.forbes.com/sites/joshbersin/2014/02/04/the-recovery-arrives-corporate-training-spend-skyrockets/#6984e3914ab7>
last visited September 8, 2016

¹² <http://www2.deloitte.com/content/dam/Deloitte/global/Documents/HumanCapital/gx-dup-global-human-capital-trends-2016.pdf>
last visited September 8, 2016

¹³ <https://www.efrontlearning.com/blog/2014/12/e-learning-healthcare-industry.html>
last visited September 8, 2016

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