

DIGITAL LEARNING EXPERIENCES IN 2020

Reshaping Strategies and Course-Building Tactics for Universities



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DEMAND FOR ONLINE LEARNING IS INCREASING

99% of University and College program administrators found that demand for online education has remained constant or increased over the recent years. 40% of them plan to increase their online program budgets within the next year.

“...if we teach today as we taught yesterday, we
rob our children of tomorrow.”
John Dewey



TRENDS AND DISRUPTIVE FORCES IMPACTING HIGHER EDUCATION TODAY

Funding crisis of universities

The recent fiscal climate and massive funding cuts proposed in the education budgets have hit universities hard. Experts estimate that public university funding has been cut by as much as 20 to 30% over the past decade. Universities are forced to balance their dwindling budgets by reducing faculty and limiting course offerings – inadvertently reducing the quality of education they provide. Most state-run institutions look to source funding from tuition rather than Govt appropriations. The US has witnessed a 96 percent increase in per-student tuition revenue – shifting the burden from states collectively to students and parents individually.

Disenchantment with the college experience

Long-term formats of college education have become increasingly less affordable due to the stark mismatch between the price of college and the average income of a college graduate. Student loan repayments force them to take up additional work in order to compensate. As a result, younger generations are slowly becoming disenchanted with the promises of a college-experience and the demand for accelerated learning periods and practical learning environments is growing. Many universities – private and public - feel the pressing need to offer increased academic opportunities and student services at lower costs.

The constant skill-gap

Rapid technological improvements and highly dynamic economic landscapes create a state of constantly renewed business offerings. These factors demand a high level of agility in the workplace. The result is an ever widening skill gap that the labor-market is scrambling to close. A large number of today's workforce continue education throughout their work-lives. They try to make the best of a wide array of study opportunities. In order to capture this new market, universities are developing new educational delivery models in response to these trends.

Blended learning and the prevalence of digitization

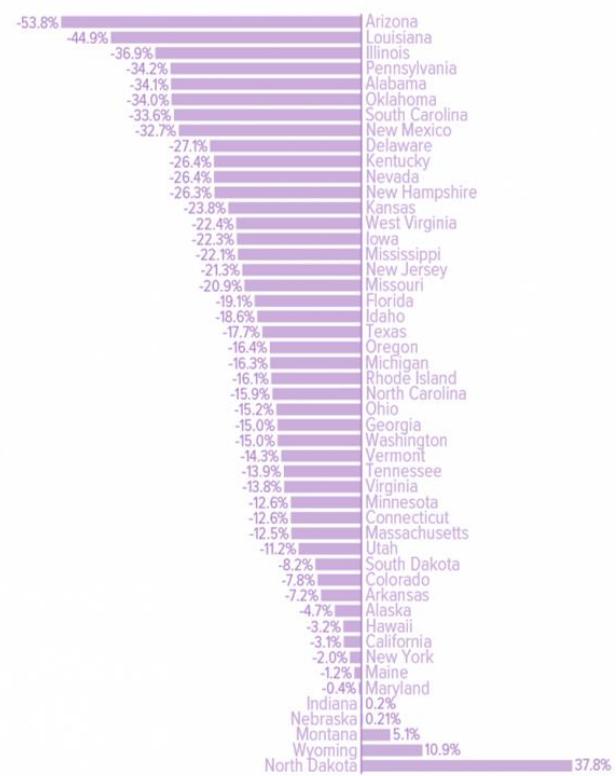
Today's student body is more diverse, complex and brings a lot of prior learning experience that sets the stage for more enriching interactions. For this reason, course material and offerings must find a more flexible, accessible platform to live up to its full potential. Enter a new era of personal digital learning - as digital technologies become omnipresent, it is increasingly viable to provide better quality learning on easily accessible online platforms. Leading to more and more universities opening their doors to this wide audience. Over the next 10 years, e-learning is projected to grow fifteen-fold, accounting for 30% of all educational provisions.

Developing new initiatives and offerings

Through this whitepaper, we will attempt to provide better strategies for assessing the need and existing competition that universities will face while examining new digital academic program possibilities. We will also cover unconventional methods to gather labor-market research like predictive analytics and real-time data collection that could provide a competitive edge to the final academic offerings of Universities, Colleges and Education institutions across the US.

State Funding for Higher Education Remains Far Below Pre-Recession Levels in Most States

Percent change in state spending per student, inflation adjusted, 2008-2017



Note: Wisconsin was excluded because the data necessary to make a valid comparison are not available. Since enrollment data is only available through the 2015-16 school year, we have estimated enrollment for the 2016-17 school year using data from past years.

IN THE PAST SIX YEARS OR SO,
CLOSE TO 800 UNIVERSITIES
WORLDWIDE HAVE CREATED
MORE THAN 8,000 MOOCS



WORKFORCE DEMANDS AND IMPLICATIONS FOR DIGITAL COURSE PLANNING

Employer Acceptance of Micro-credentials

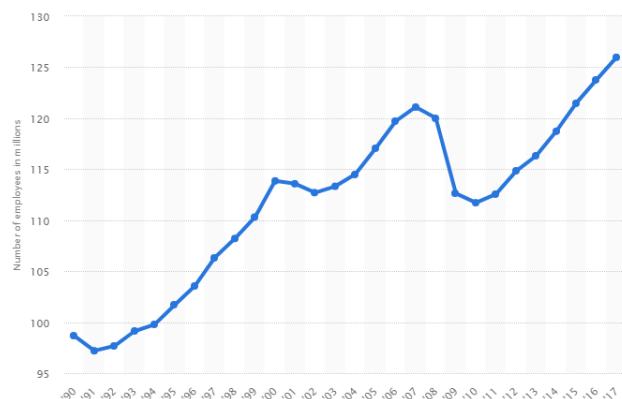
Post-secondary qualifications are vital to securing jobs in leading companies. With this being the norm, a college or university degree is no longer as prized a possession as it used to be. Employers are slowly realising that workplace productivity is not solely dependent on whether the employee has the relevant degree/qualification but on whether or not they possess the critical and soft skills required to execute a task proficiently. More and more organizations are shifting from hiring people with degrees, to self-starters with niche expertise, proven abilities, and an understanding of key disciplines in their fields.

60% OF ALL EMPLOYERS HAVE JOB OPENINGS THAT STAY OPEN FOR 12 WEEKS OR LONGER, COSTING THEM TO THE TUNE OF \$800,000 ANNUALLY.

Hyper-specialization and Continued Learning

Demanding work environments require professionals to stay on top of their fields at all times. This means constantly upgrading their skills and proficiencies without leaving the work environment to study. Continued learning is a concept that stems from this workplace conundrum. In order to address the issue, many organizations collaborate with universities and colleges to bridge this gap through training sessions, certifications and even online courses to be completed by an employee at regular intervals. Organizations utilize these training sessions to build their processes. Concepts like hyper-specializations are not unfamiliar. Different employees are given separate learning mandates and their skills are honed towards a particular expertise. They then work together as a team to add to the productivity of the organization. Thus continued learning is not only dependant on the learning prowess of an individual but also seeps in at an organizational level and invites collaborative opportunities that colleges and universities can capitalize upon.

NUMBER OF FULL-TIME EMPLOYEES IN THE UNITED STATES FROM 1990 TO 2017 (IN MILLIONS)

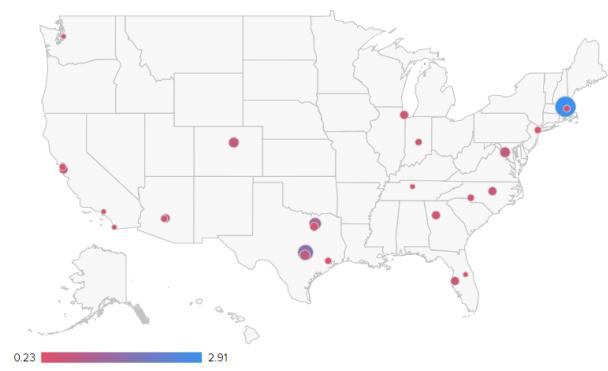


Building Strategic Alliances with Companies

In order to develop an ongoing relationship with individual companies, universities and colleges designate specific resources towards the task. It is not uncommon to have the career-building department as part of the outreach program. Universities and colleges first need to identify organizations that might be the best fit for their services. For this, labor market insights can serve as a sturdy indicator. Labor market analytics from Talismatic, for example, dive into the hiring challenges that a region faces. It helps identify a host of data like: Which companies in a specific region face hiring challenges? Which functions of the organization face a hiring deficit? Can the existing skill-framework of employees be developed in order to meet those skill deficits? Using these analytics, outreach teams can develop a well-formulated strategy to approach companies with their academic expertise.

TALISMATIC SKILL DEMAND AND HIRING COMPANIES

GEOGRAPHIC DEMAND OF SKILLS ①



EMPLOYMENT STATS ①

NO.	TOP COMPANIES <small>②</small>	ACTIVE MONTH OF HIRING
1	Trophy Nissan	March
2	Anixter	April
3	Berkshire Hathaway Automotive	May
4	Hughes Supply	July
5	NES Rentals	July



BUILDING BLOCKS OF SUCCESSFUL DIGITAL LEARNING PROGRAMS

High Functioning Learning Programs

While drafting the basic architecture of an upcoming or existing learning program, it is imperative that program administrators incorporate these requirements:

1. Adequate reference frameworks for courseware, faculty and resources.
2. Separate Learner profiles - complete with a provision for inputs from any interactions the student might make online. E.g. – With Teachers, Peers, Parents, Colleagues.
3. Courses that are aligned with the skill competency the learner is trying to achieve.
4. Effective tracking of learner's progress, complete with course-correction paths.
5. A framework for regular engagement of learners with the online learning platform.
6. Adequate resources for help or support should the learner need assistance with the platform.
7. Online security measures in line with GDPR in case of global platforms.
8. Collaborative platforms for e-meetings, sharing of learnings and experiences.
9. Analytics for learning that measure learner performance and interaction with the platform.
10. Online Payment facility integration

Turning Online Learning into a Destination

Owing to the large number of new players in the field of online open courseware, Universities and Colleges are looking to revamp their existing online offerings by turning their digital platforms into an ecosystem that learners look forward to returning to on a daily basis. The latest trend is in creating online programs that reflect current market trends and promote positive social change.

1. Create a personal online workspace for each learner
2. Don't serve up all your content at once, make them come back for more.
3. Create a global social network of learners
4. Deliver great user experiences and content
5. Provide offline access for learners with web access challenges

Research before Investing in Programs

Key market research numbers that every provost and academic administrator should have at their fingertips –

1. Skill Demand Analytics – Identify skill gluts and create/promote content in avenues and geographies that will eventually yield the best results.
2. Course Demand Analytics – Map skills to courses in order to ensure relevance of content and create successful, in-demand programs.
3. Labor-Market Predictive analytics – Identify Skill gaps in the labor market, track hiring companies that face skill deficits and prepare a road-map for approaching targeted audiences.
4. Technological Updates – Stay up-to-date with the latest in technology and follow the trends to ensure you are using tech that is in-touch with the times.

Are your solutions scalable?

While developing new revenue sources, scale matters. The programs offered must balance the revenue generated from the program with the costs of creating and running them effectively. In order to be truly successful, it must provide a significant credit cost reduction for learners. Developing cost-effective online courses without compromising on course quality can generate a value proposition that's hard to resist.

Program administrators must consider the probable costs vs returns for each of the online graduate programs, diplomas, non-credit professional certificates, undergraduate degree completion programs, and sometimes even online doctoral programs that are offered. The type of courses offered matters greatly because each type of course can have varying revenue potentials. If it is possible, different pricing models should be considered based on your target audience. Each segment of your target audience will differ in buying capacity, level of interest, technological advancement. Take into account the following pricing model considerations before forecasting the returns from online courses.

Pricing Considerations for Digital Learning Programs

1. Value of Content Versus Amount of Content

Course Price must be dependent on Value and not quantity of content.

2. Competitor Evaluation Research

Competitive pricing structures for courses come highly recommended due to the vast number of courses out there. Be mindful that most of your target market is learning online could be looking for cheaper alternatives to achieve course certifications. In such cases, competitive pricing plans could prove conducive.

3. Quantify outcomes for learners

Showing learners tangible benefits of enrolling to your programs is just as important and pricing. For example: The difference between "Earn a French Degree" versus "Speak French like a local" can quantify the learning outcome for a student.

4. A/B Testing for price

Balancing the number of enrollments with the amount of revenue generated from sales could determine the long-term success of your courses. It might be a good idea to test your pricing to the limit where your enrollment numbers begin stagnating. That's how you know you have over exceeded the optimal pricing for your program.

5. Premium Pricing Authority

Sometimes, pricing and content cannot alone shoulder the responsibility for the success of a program. Branding plays a large role in pricing. A reputable institution with a large following-base can garner higher number of subscriptions. While gauging the feasibility of a digital learning program, be sure to factor-in the costs of branding. This includes involving influencers to review your product, investing in digital marketing efforts, public relations and events that can boost the visibility of your brand – not just your content.

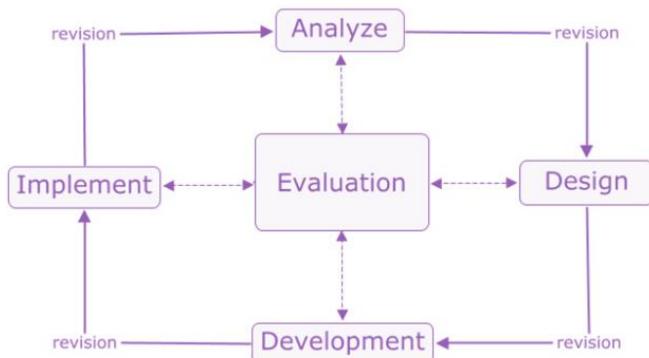
Quality, not low-costs is your biggest selling point. It takes just as much effort to sell a low priced course as it does to sell a high priced one!



INSTRUCTIONAL DESIGN MODELS FOR DIGITAL LEARNING

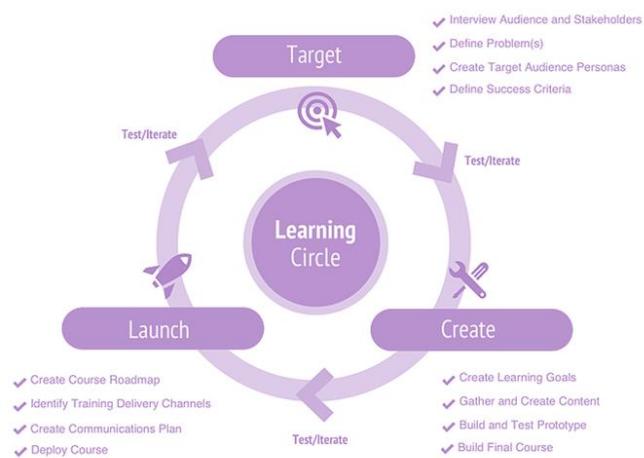
ADDIE

Analysis, Design, Development, Implementation, and Evaluation. Created for the U.S. Military by Florida State University, ADDIE is a five-phase course development process that represents a flexible guideline for building effective training and instructional materials.



Learning Circle Framework

Simple and modern learning design model that meets the needs of today's fluid workforce



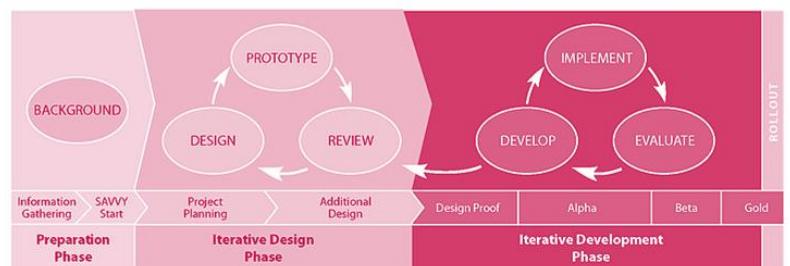
Action Mapping

Perfect for creating corporate-driven e-learning programs, action-mapping can be used to design impactful eLearning simulations, and in-person training events.



SAM Model

SAM is an agile e-learning development process built specifically for the creation of performance-driven learning. It allows the Instructional Designer to make changes by performing small steps and multiple iterations.



Other Worthwhile Instructional Design models for e-learning are:

5. Situated Cognition Theory
6. Sociocultural Learning Theory
7. Merrill's Principles Of Instruction
8. Individualized Instruction
9. Bloom's Taxonomy Of Learning Objectives

It is essential that the selected Instructional Design theory is aligned with the target audience, and their objectives. Another thing to factor-in while creating digital learning experiences is The Cognitive Load Theory.

Cognitive Load Theory

Developed by John Sweller in 1998, Cognitive Load Theory is an important consideration for online program development. The theory states that learning happens best under conditions that are aligned with human cognitive architecture. Cognitive load could be an impediment to new information processing and long-term memory creation. Well created courses help manage cognitive load, causing students to grasp new skills and form new memories easily. Balancing cognitive load and forming memory schemas can help build practical learning for students. It could help them understand the practical applications of their newly learned skills.



RENDERING DIGITAL LEARNING EXPERIENCES TO WIDER AUDIENCES

Identifying audience segments

Student-force

High tuition fees and longer learning periods are encouraging more and more students to switch from a traditional college education to more flexible formats of learning. Moreover, online courses typically see a wider reach in international audiences – especially when the accreditation involved comes from a reputed institute.

Unskilled labor-force

73% of online students report job and employment goals as a reason for enrolling. These students plan to transition to a new career field (35%) or want to earn academic credentials to bolster their standing in their current line of work (30%). Since a large chunk of online students are already employees, using work/job-targeted marketing communication may help boost course awareness and admissions.

Organizations and Companies

According to research conducted by Deloitte Consulting, more and more corporations are embracing online courses. The main reason for this is that online courses help trim hefty training budgets that run up to \$130 billion dollars annually. Identifying and targeting specific companies with skill-related issues is now possible using big data analytics. It is a cost-efficient means to create relevant and engaging course content by identifying the direct need present throughout the market.

Targeting global audiences

This involves the creation of relatable content across cultures and locations. Specific culture-references must be avoided when creating course content that is set for an international audience. The course content must ensure that the ultimate goal of the course resonates with the entire audience for which it is intended.

Content delivery formats

Most students in online learning programs only get a better eLearning experience from interactive scenarios or games. As such, it is essential to include assessments and multimedia that cater to a wide range of learning needs. But while program administrators are well aware of the benefits of simulations, games, tutorials and multimedia, Virtual Reality is a growing favorite amongst course developers. Immersive VR replicates the environment, thereby equipping them with practical learning experiences. For example, Next Galaxy Corp is developing VR medical training that will reduce training cost per employee from \$3000 to \$40. And Boeing believe that VR can cut training time by 75%.

It might help to learn of the various ways VR and AR are changing the education landscape.

- Scenarification** – best created for learning situations that require on-the-job training and incur no physical consequences. E.g. – training banking staff to deal with armed robbery situations, public speaking, fire-fighting scenarios, etc.
- E-trips** - using VR to recreate and depict pseudo places and situations. E.g. the inside of a factory that is situated miles away, taking them on historical trips through the Egyptian era.
- Virtual Classrooms** – Using Virtual reality to mimic a classroom scenario for easier collaboration between distance learners. Virtual classrooms also help instructors use visual and audio aids to explain difficult concepts – thus promoting more interactive and fruitful learning.

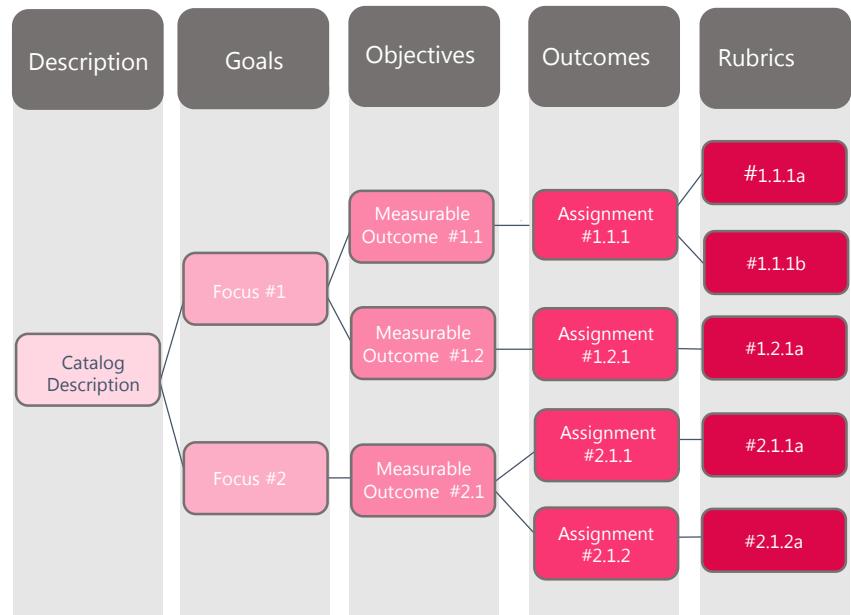
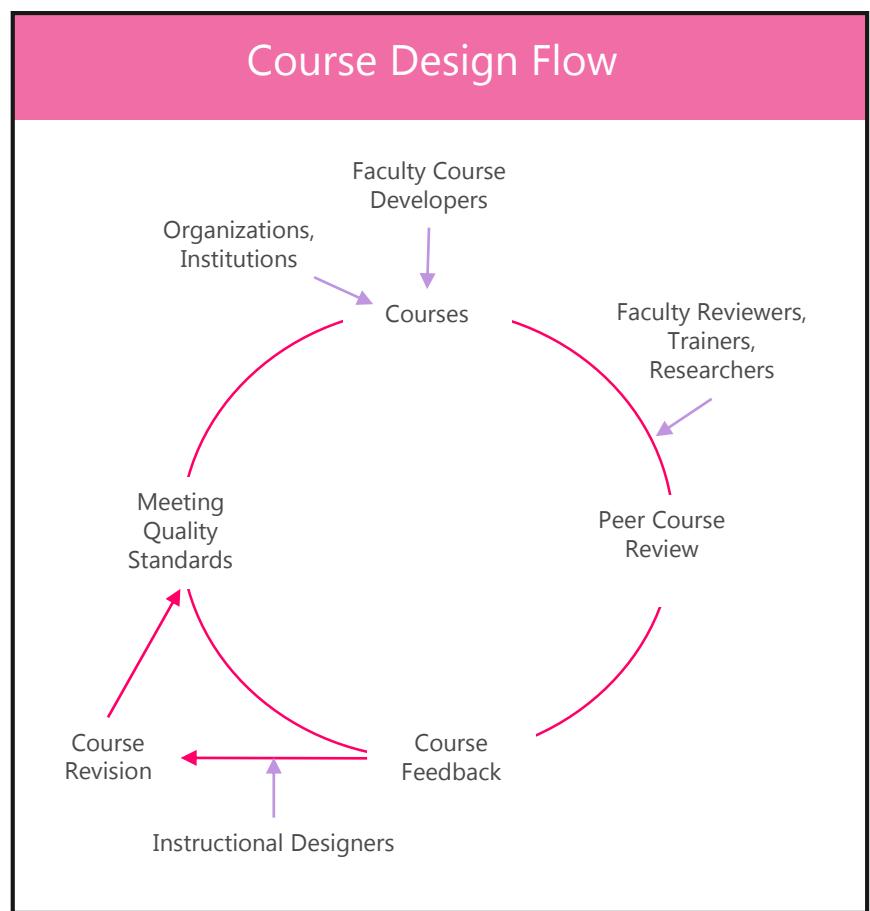
Evaluating courses & curriculum

Furnishing Instructional Designers with course content

To attain the best results, use analytics and market research to drive core academic content for courses. Appoint a CRC (Curriculum Review Committee) to oversee strategic creation of content in the form of online lectures, videos, interactive animations and discussion boards.

Course content and language

Organize all online training content into the same organizational structure so it is easy for your participants to find the content that is mapped to the skills they need to develop. Use language that is both basic and informative. This helps turn the eLearning experience into an effective mode of learning for people of all backgrounds, ages, educational levels, and cultures.



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