

Project-based Paper: Journal of Online Learning Platform

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Abstract: *As we are upgrading daily our education system is also upgrading and taking a new a way of learning. This new way of learning uses internet and combination of applications termed as “platforms”. These applications are built with programming languages and are software’s in nature this software make use of hardware for physical interaction with user. So, this research paper seeks out to find out what are e-learning is meant to because the Online Learning is gaining popularity day by day and has many users. There are several e-learning platforms available online. The study concentrates on opinion of users and what they think best to describe what e-learning means and which e-learning platform were used by their school/college or educational institutes. And which e-learning they preferred the most for learning. Cost factor is also concentrated in the study. And will the e-learning based learning will be a better option in future than traditional way of learning.*

Key-Words: *e-learning*

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I. Introduction

The digital age has ushered in a paradigm shift in education, with online learning platforms becoming increasingly integral to the learning process. Online Learning is a successful product in the current era of technological innovation, and its introduction has become inevitable in light of the current and accelerating changes in all developed and developing societies. Project-based e-learning platforms have risen as a dynamic and interactive approach to engage learners. These platforms focus on experiential learning, where students actively participate in projects, problem-solving, and collaborative activities. This article provides an in-depth examination of project-based online learning, exploring its historical evolution, existing systems, research methodology, findings, and implications. The Organization for Economic Cooperation and Development (OECD) considers online learning as the use of information and communication technology in the various educational processes to support and enhance education. Online learning can be used alone or to complement traditional classes.

II. Objectives

- 1 What is users’ opinion and what you think well describes what online learning means?
- 2 Which online learning platform was used by your college/school/educational institute for online education?
- 3 Which online learning platforms have been used by users to educating themselves?
- 4 Which online learning platform was preferred most by users?
- 5 Opinion on cost factor between online learning and classroom way of education.

III. Historical Background

Learning is not a new concept but has been reinvigorated by technology. Historically, it draws inspiration from constructivist and experiential learning theories, which emphasize active participation and problem-solving as effective learning strategies. The advent of the internet and digital tools has provided a fertile ground for the emergence of e-learning platforms, which promote hands-on, experiential learning. It aims to create an interactive environment rich in applications based on computer and Internet technologies, enabling access to learning resources at any time and from anywhere. That is, e-learning refers to all forms of learning and education in which information and communication technologies are exploited to enable face-to-face and online interactions.

IV. Literature Review

A study of the existing system is a critical phase in the development of any project, including an Online Learning Platform. This analysis helps in understanding the current landscape, identifying shortcomings, and setting a solid foundation for designing and implementing improvements. Here's how a study of the existing

system for an Online Learning Platform might be conducted:

A comprehensive survey of existing e-learning platforms reveals a diverse landscape:

1. edX: edX offers a multitude of project-based courses that blend video lectures with interactive projects, often developed in collaboration with top universities and institutions.

➤ Problem addressed: Online degrees, courses from top universities, one-on-one teaching, 24/7 support, problem-solving.

Advantages:

- High-quality courses from prestigious institutions
- Variety of subjects, not limited to tech
- Mostly Professional and career development courses.

Disadvantages:

- Paid certificates and degree programs
- Fewer courses in creative and non-tech fields compared to platforms

Reference Link- <https://www.edx.org/>

2. Skillshare: Skillshare primarily addresses the need for creative and skill-based learning. It offers a wide range of courses in creative and non-technical fields, such as design, art, writing, photography, marketing, and more.

➤ Problem addressed: Focused on creative and non-tech courses, interactive platform, skill development, and community.

Advantages:

- Creative courses in areas like design, photography, writing, etc.
- Interactive and community-driven learning experience
- Affordable subscription model, Skill development for hobbyists and professionals.

Disadvantages:

- Limited focus on tech-related or academic courses
- Premium subscription required for full access to courses.

Reference Link- <https://www.skillshare.com/>

3. Coursera: Coursera's specialization programs include project-based courses where learners tackle real-world challenges, receive peer feedback, and collaborate on projects.

➤ Problem addressed- online degree, variety of courses, one to one teaching, 24*7 hrs support, problem solving.

Advantages-

- Getting degree by Learning at home itself
- Paid courses, large no. courses, certification too.

Disadvantages –

- High price courses, price keeps on increasing as you increase no. of visits
- No guarantee for placement.

Reference Link- <https://www.courseera.org/>

4. Udemy:

➤ Problem Addressed: Offers a vast marketplace of courses covering a wide range of topics and skills.

Advantages:

- Enormous variety of courses on diverse subjects
- Affordable individual course pricing
- Self-paced learning and lifetime access to course materials

Disadvantages:

- Course quality can vary since anyone can create and sell courses
- No formal degrees, primarily offers individual courses and certifications.

Reference Link: <https://www.udemy.com/>

5. Pluralsight:

➤ Problem Addressed: Focuses on technical and IT-related skills development.

Advantages:

- Specialized in tech and IT fields, with a focus on professional development.
- High-quality courses taught by industry experts,
- Skill assessments and learning paths for career growth.

Disadvantages:

- More expensive than some other platforms.
- Primarily focuses on tech-related topics.

Reference Link: <https://www.pluralsight.com/>

6. NPTEL (National Programme on Technology Enhanced Learning):

➤ Problem Addressed: Provides online courses and certification in engineering, science, and related fields.

Advantages:

- Offers free online courses in technical and scientific fields.
- Created and managed by Indian Institutes of Technology (IITs) and Indian Institute of Science (IISc).
- Certifications recognized by industries and academia.

Disadvantages:

- Limited in scope, primarily focusing on engineering and science.
- May not have as extensive an international presence.

Reference Link: <https://nptel.ac.in/>

7. Great Learning:

➤ Problem Addressed: Specializes in providing professional education and upskilling in tech and business-related fields.

Advantages:

- Offers in-depth, industry-relevant courses and programs.
- Collaborates with top universities and institutions.
- Provides mentorship and career support services.

Disadvantages:

- Courses tend to be expensive.
- Primarily focused on tech and business domains.

Reference Link: <https://www.mygreatlearning.com/academy>

8. Khan Academy:

➤ Problem Addressed: Offers free educational content for learners of all ages.

Advantages:

- Provides free access to a wide range of subjects, including K-12 education.
- High-quality video lessons and interactive exercises.

Disadvantages:

- Primarily focused on K-12 and early college-level education.
- Limited professional development or certification.

Reference Link: <https://www.khanacademy.org/>

9. LinkedIn Learning (formerly Lynda.com):

➤ Problem Addressed: Focuses on career development and professional skills.

Advantages:

- Offers a vast library of courses on professional skills.
- Owned by LinkedIn, providing integration with your professional network.

Disadvantages:

- Requires a subscription for full access.
- Courses may not be as in-depth as on other platforms.

Reference Link: <https://www.linkedin.com/learning/>

V. Research Methodology

Our research methodology involved a multi-pronged approach. We conducted surveys among students and instructors who had used project-based e-learning platforms, compared their experiences with those using traditional e-learning methods, and analyzed key metrics such as engagement levels, skill development, and

overall satisfaction.

Additionally, qualitative analysis was performed by collecting and examining feedback and testimonials from both learners and educators. This data was complemented by a review of academic literature to gain a holistic perspective on project-based e-learning.

4.1 Research Design: Descriptive Research.

4.2 Source of Data Primary data is the detailed information from respondent collected through questionnaire. It deals with basic questions in terms of individual age, gender etc. Secondary data will be collected from the journals, case studies, books.

4.3 Data collection method Survey will be conducted.

4.4 Population the population will be taken are who are aware about e-learning platforms.

4.5 Sampling Method Convenience sampling method will be used for research.

4.6 Sample size 200 responses.

4.7 Data Collection Instrument Data Collection Instrument we have used is Questionnaire.

This research is using descriptive quantitative design. Descriptive quantitative design involves test, survey, interview, and observation to describe status or characteristics by a phenomenon or situation. Survey is one of descriptive research. Survey research used to have description of certain group of individuals. This research is using survey as research design because this research purpose is to have description in effectivity of school from home in West Sumatra as the impact of COVID-19 pandemic.

Countries with most learners on Online Learning Platforms

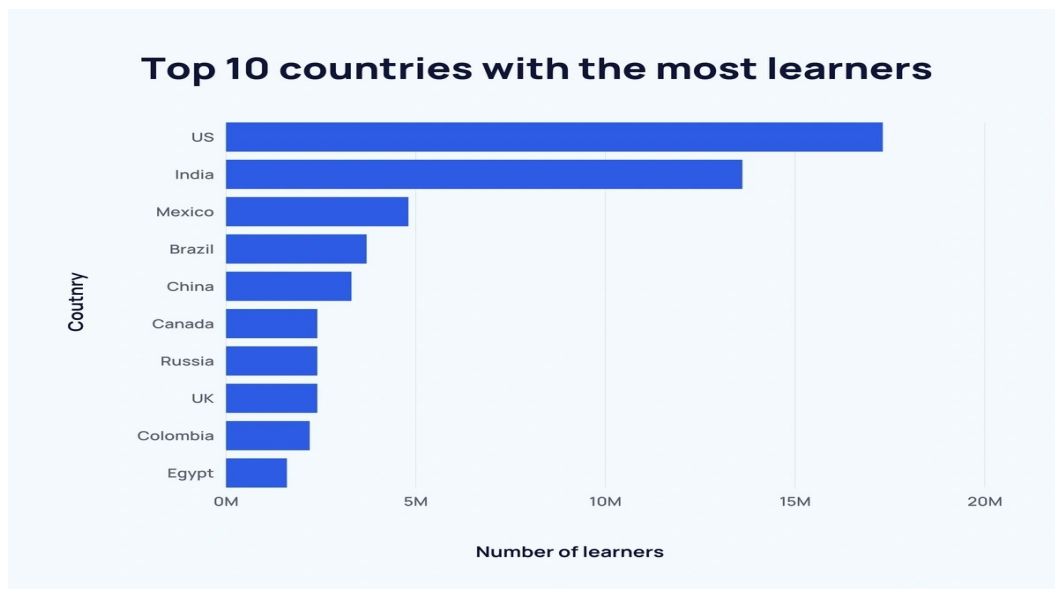


Figure 1- Top 10 Countries with the most Learners

Reference– World Economic Forum Survey: More than 20 million new learners registered for courses in 2021. Image: Coursera

Some Leading Institutes of US with offering online courses

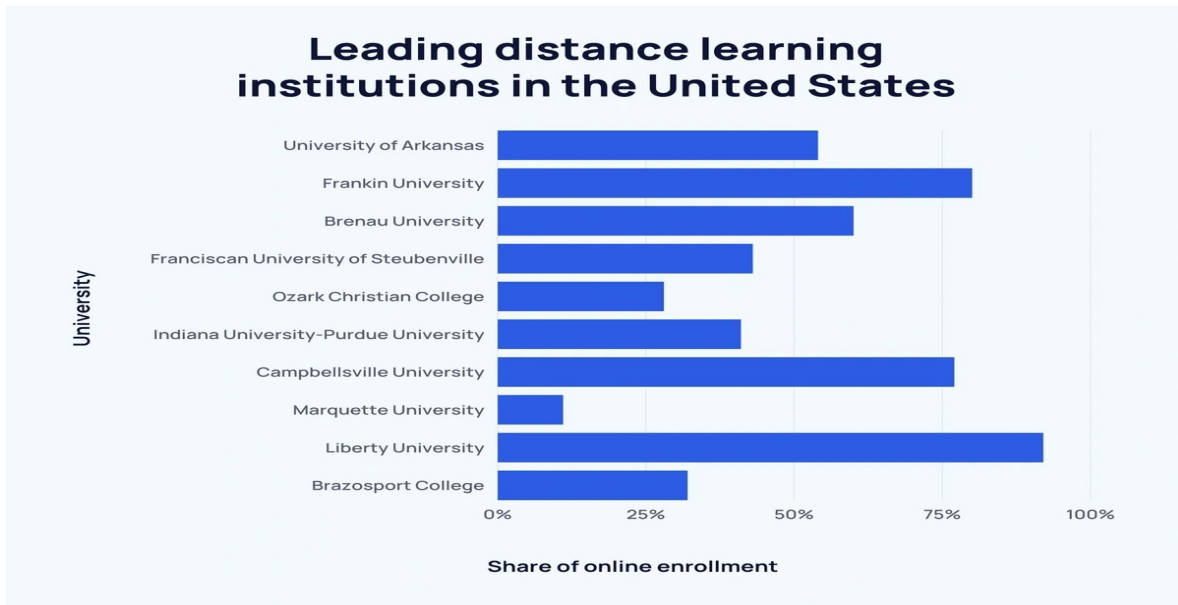


Figure 2- Leading distance learning institutions in the United States

Reference – Exploding Topics Survey: The figures of survey in following figure displays that how the adaptation of online learning platforms is being recognized by world’s most reputed institutions.

Learners Recently enrolled to Online Learning Globally

More learners are accessing online learning

The demand for online learning on Coursera continues to outpace pre-pandemic levels.

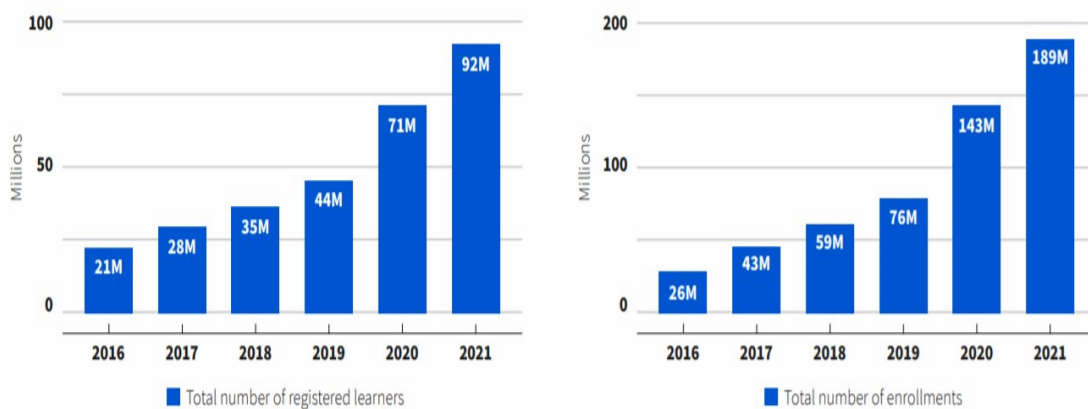


Figure 3- Record of number of Learners getting enrolled for Online Learning

Reference – World Economic Forum Survey: The figures of survey in following figure displays that how the rapid adaptation of online learning platforms is being done by the learners.

VI. Result Discussions

Research on online learning platforms has yielded a spectrum of results that illuminate the impact and potential of online education. Such research consistently showcases the notable benefits of online learning, including improved accessibility, cost-effectiveness, and the provision of flexible learning opportunities. Online learning platforms have successfully enabled personalized, customized learning experiences, allowing learners to proceed at their own pace and select content that aligns with their specific needs. Furthermore, they have emerged as key players in global education, breaking down geographic barriers and providing diverse perspectives from around the world.

Findings from Survey:

- Majority users described online learning as “e-learning” as 60 Responses out of 200. And some responded as “learning on your own pace” as 56 responses out of 200.
- Majority users responded NPTEL as the most used platform by their college and educational institute 112 responses out of 200 were for NPTEL making it highest.
- Udemy was the most used online learning platform by users to educate themselves as 76 responses were for Udemy out of 200 making it highest.
- Udemy was the online learning platform user preferred the most, as 80 responses were for Udemy out of 200 making it to the top.
- Majority users as 132 out 200 agreed that studying through e-learning mode provides the flexibility to study at the time convenient to the learner & e-learning can enable people to study irrespective of wherever they are in the world.
- Majority user responded that e-learning and classroom study cost the same as 74 out of 200 while 65 users responded that classroom study is more expensive than e-learning while rest 61 responded that e-learning is costlier than classroom study.

We can observe the following from this study.

- (i) Different sections of the society were differently impacted due to sudden shift on online mode of learning.
- (ii) There were sections of the society who did not have sufficient infrastructure for online learning.
- (iii) Discrimination among different classes may not be there as it takes place in physical classes, but the online mode of education will widen the gap among different sections of the society.
- (iv) Teaching satisfaction level with the online mode is less than in-person education mode and even less for suburban and rural students.
- (v) Constraints of online education are associated, indicating that online education creates more division in an already divided society.

The findings from your survey provide valuable insights into the perceptions and preferences of users regarding online learning platforms and their experiences.

VII. Conclusion

Online learning platforms have emerged as a pivotal component of modern education. Their capacity to engage students actively, foster critical thinking, and encourage skill development positions them as a transformative force in education. Existing systems such as edX, Coursera, Pluralsight, Udemy, NPTEL, Great Learning and Khan Academy provide valuable tools to educators and learners in their pursuit of more dynamic and effective learning environments.

As technology continues to evolve, project-based e-learning platforms are poised to further revolutionize education. Educators and institutions are encouraged to adopt these platforms to elevate learning experiences, improve academic outcomes, and prepare students for the multifaceted challenges of the 21st century. Future research endeavors should explore the long-term impact of project-based e-learning on various facets of education and student achievement, and also investigate strategies for implementing project-based approaches in different learning contexts.

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