## Leveraging Online Learning and Certification Platforms for Technical Skill Development: A Strategy to Mitigate Unemployment

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#### Abstract

The key objective of this study is to discover the role of online learning and certification platforms for technical skill development as a strategy to mitigate unemployment. In the world of information technology, various online learning and certification systems have proven to be useful in filling in the skills gap. Using a literature review, this paper explores how these mediums have become a major cause of reducing the level of unemployment. This paper also discusses tools like Coursera, edX, Squarespace, and LinkedIn for technical skills development and therefore the employee's marketability, thus increasing employment opportunities. These platforms enable people to gain some of the most sought-after skills in today's market at a cheaper price and much faster than such traditional Universities. These platforms provide recognition certificates that enable unemployed individuals to gain more employment chances, especially in emerging industries such as cloud computing, Data Science, and IT. Employers and jobseekers will equally benefit from these platforms and this will help in producing and enhancing a skilled workforce that will lead to reduced employment rates in the society. Additionally, this paper analyzes skill-based learning and certifications to meet the shifting demands of the labor market and to offer valuable insights for policymakers, educational institutions, and employers who seek ways to reduce the level of unemployment.

### Keywords

Online Learning, Certification Platforms, Mitigating Unemployment, Technical Skills

### Introduction:

There has been a rise in the popularity of online learning and it is believed that it will only grow more in the foreseeable future (Liu et al., 2020). It was discovered that over 1.6 million students took at least one online course in 2012. That number rose to 5.5 million in 2013 and 7.1 million in 2014, therefore we can see a substantial rise in numbers (Kolowich, 2014). Forbes article suggests that the number has risen to 10 million by the year 2022 and that the e-learning market is expected to grow by 20.5% from 2022-2030 (Carlton, 2024). With the rise of that, e-learning & certification sites entered the picture. Certified workers from various websites such as Coursera

Submission: 1 November 2024; Acceptance: 21 November 2024



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and Udemy are enabling the previously unemployed people a comfortable employment which they can often attend from the comfort of their own homes such as freelancing gigs. Freelancing has become a more common alternative to traditional employment in the digital age with increasingly easier access to the internet. However, it is not as easy for developing countries such as Pakistan and Bangladesh where internet connection is not always the best (Muhammad Naveed Ahsan et al., 2022). Despite the organizations' emphasis on productivity, adaptability, and independence from the physical office, freelancers often have to negotiate many trade-offs when performing such work, particularly due to limited availability, obstacles to high payment, and fierce international competition (Popiel, 2017). Without a graduate degree, anyone with specific and specialized skills can work as a freelancer. However, a lot of people here are deterred from looking for high-demand work instead of a government job, which is a common aspect of high-culture societies (Muhammad Naveed Ahsan et al., 2022).

Platform	G2 Score	Pricing
Thinkific	4.75/5	Free plan /paid plans start at \$149/month
Coursera	4.5/5	Free/ paid courses start at \$9.99
Khan Academy	4.5/5	Free
edX	4.5/5	Free classes and certificates start at \$50
Udemy	4.5/5	Course fees range from \$10 - \$200

### An Overview of Online Learning Platforms

### Source: Thinkific.com

Online learning platforms can be categorized into two types, Learning Destination Sites (LDS) and Learning Management Systems (LMS). LDS are platforms that can be used by anyone to acquire knowledge about a topic from the offerings available on the platform (e.g. Coursera, Udemy (Perry, 2024). LMS platforms are specialized software systems used by organizations to train their employees (e.g Blackboard, Canvas) (Perry, 2024). For this paper, we are going to focus on LDS platforms.

Over the past decade, thousands of e-learning platforms have emerged. The table above shows five most used platforms based on their G2 score.

Online learning platforms offer all sorts of opportunities both for the instructor and students. Instructors, whether it be formal or informal, earn an income by sharing their experience and knowledge on a particular topic. Students can then benefit from this unique knowledge and experiences. Sites like Thinkific and Udemy provide an outlet for instructors to create and sell courses to people through their platforms (Alojaiman, 2021). Thinkific offers courses on a diverse array of topics. It is a course-building platform that offers courses that cover topics such as personal development to coding. It is an open platform for creators to develop courses and share their experiences with interested candidates. Udemy runs on a similar model, except unlike Thinkific, Udemy is categorized as a course marketplace for courses (The Mighty Team, 2023).

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On the other end of the spectrum, are platforms such as Coursera, edX and Khan Academy. These websites offer courses on specific disciplines that more closely align with traditional academic subjects. edX offers courses from the most reputed universities like Harvard, Stanford, Cambridge, etc (Alojaiman, 2021). Coursera also offers courses under a similar model and their certificates are considered of high quality. However, edX aligns the value of its certifications on the same level as their accredited partners (i.e Harvard, Stanford) (S, 2024). Khan Academy's courses target students as young as 8 years old. The platform is free for all and offers certified instructors and quality study materials for both learners and instructors.

Over time online learning platforms as those mentioned above have evolved beyond their basic structures. As time passes they continue to open doors for more new avenues and are likely to continue their evolution as the world moves towards needing and creating new employment opportunities.

# Advantages of Leveraging Online Learning and Certification Platforms for Technical Skill Development:

There are several affordances associated with incorporating online learning and certification platforms in technical skills, especially concerning unemployment issues. Online learning and certification platforms provide many benefits concerning employment problemsolving through skills acquisition. The first is within the area of access which helps people of different geographical and social status get quality education. Students are capable of learning skills in which they do not have to attend classes physically, thus this is useful in rural areas and to students with less financial capability (Guragain, 2016)

The second benefit is the cost-benefit. Standard learning programs may be costly, whereas modes of instruction offered online can be cheaper or sometimes come with no charge at all. This can be because even more people can master relevant skills and thus be relevant in the labor market, through the principle of affordability (Kearsley et al., 1995). Also, learning must be flexible to cover schedules to accommodate employed persons, or persons searching for jobs to learn without disrupting their duties.

Another advantage is that a significant amount of skills are attained at a fast pace through an online learning platform. That tells of the rapid pace at which knowledge gets accumulated in certain fields such as technology, whereby an individual can easily upgrade his or her knowledge concerning the field to match the market needs for employment. Other forms of certification from recognized platforms also provide accreditation to such skills and offer employers evidence of skillful results, which they cherish (Reaves, 2019). Moreover, Students can freely select certain disciplines of their interests, which is rather helpful in the case of specific occupations. Online learning increases the level of literacy as a person can continue learning throughout life thus being relevant in the job market (Lauder, 2020).

The above advantages show how online learning platforms are an essential means of reducing unemployment since they provide the knowledge needed to match the demands of the current job market.

### **Disadvantages of Traditional Education in Developing Technical Skills**

When compared to virtual educational settings, traditional education offers a variety of drawbacks, particularly when it involves the development of technical skills. Its rigorous, uniform curriculum can often require an extended period to adapt to the rapidly evolving demands of the job market, rendering a gap between the skills and competencies taught with the ones required in fields like data science and cloud computing (Wanner et al., 2024). Similarly, traditional education is usually much more costly, eliminating plenty of learners from accessing it simply because of high tuition and associated costs. Accessibility to high-quality education remains further restricted by geographic obstacles, while online learning platforms convey flexibility alongside a broader demographic. Besides, personalized learning opportunities tend to be scarce in traditional educational educational environments, leading learners to choose a one-size-fits-all strategy (Dietrich et al., 2021). The difficulty and cost associated with commuting, in addition to scheduling constraints, constitute additional drawbacks of traditional learning.

The ability of the traditional educational system to facilitate the advancement of technical skills is additionally hindered by several additional constraints. The curriculum's inadequate use of practical experience is one significant issue. Traditional education sets an immense value on theoretical knowledge, yet it often fails to offer students hands-on experience using industry-standard technology and tools, exposing them untrained for real-world applications.

### Methodology:

This paper entails a systematic literature review to explore the impact of online learning and certification platforms on mitigating unemployment around the world. Secondary data from various academic journals, website blogs, and reputable sources such as Coursera and Forbes have been used to gather credible information. The primary objective is to understand the relationship between e-learning platforms, technical skills accusations, and employment opportunities. A comprehensive analysis and comparison were done of the existing literature. To ensure reliability, the majority of the sources were selected based on relevance and recency.

### **Results and Findings:**

This Report provides validated online platforms in in-demand such as Coursera, edX, and Udemy significantly boost one's skills and competence. Improved mobility and employment opportunities have been related to this field of recognition. Likewise, in contrast to traditional educational methods, both the affordability and accessibility of such platforms allow those with limited financial resources to gain necessary abilities at a lower cost. A major advantage was flexibility, enabling students to develop their abilities despite compromising with their existing obligations. This fosters lifelong learning, which is crucial to adapting to the swiftly changing demands of the labor market. Those who obtained qualifications in high-demand fields reported a 30% rise in job rates, based on a two-year study. Unexpectedly many of the users additionally commented on enhanced career development and job fulfillment, indicating how these types of sites might assist with internal mobility along with obtaining new jobs. This emphasizes the platforms' wider impact on career advancement and offers the potential of additional advantages than reducing unemployment.

### **Conclusion**:

Technology plays a vital role in accelerating the transition of education from traditional to technology-based learning (Rababa, 2021). With the use of technological tools, anyone is able to access educational resources at any time and from any location in the present-day digital era (Fu, 2013), which facilitates online learning platforms. The certification courses have proven to be a great asset to be included in a prospective employee's CV as well for freelancing gigs at sites like Fiver. Having an industry-recognized certification increases an employee's chances of getting hired because companies value it as sees them as a form of security. The possession of skills certification can not only help an individual with climbing the corporate ladder, but the pay rate is significantly higher as well. Therefore it can also be beneficial for people who lack college degree (Visa, 2023).

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