

# DIGITAL TRANSFORMATION IN EDUCATION: OLE NEPAL'S CONTRIBUTION IN INTEGRATING TECHNOLOGY TO NEPAL'S EDUCATION SYSTEM

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## Abstract

Nepal is one of the countries in South Asia categorized as a least developing country. It faces various challenges such as its geographical location and landscape, historical burdens, and a society that remains discriminatory in terms of social caste. Additionally, there are issues related to national and household income, as well as limited access to and availability of technology. These factors contribute to the complexity of the challenges in education and learning in Nepal. One of the actors addressing these issues is One Learning Exchange. This study focuses on the role of One Learning Exchange Nepal in responding to the educational problems in Nepal. Using a qualitative-descriptive approach, this research is analyzed through the role theory of Non-Governmental Organizations. The derivatives of NGO role theory include: Problem Solver, Capacity Building, Aid Provider, and Collective Act Mechanism. Several key points can be identified, such as in the role of Problem Solver, which includes developing online education through platforms like E-Paath, E-Pustakalaya, educational online games, Hamro Ramailo Kathaharu, Sanketik Sinkai, Seepalaya, and the Robotic & Programming program. In the role of Capacity Building, this includes training for educators. As an Aid Provider, activities include the distribution of laptops, computers, installation of offline servers, and school construction. Under the Collective Act Mechanism, OLE Nepal collaborates with the central government, local governments, and various national and international organizations.

**Keywords:** Education, Open Learning Exchange Nepal, Technology

## 1. Introduction

Nepal is a country located in South Asia. The country's position is landlocked, bordered by China and India, with a geographically extreme landscape filled with hills and mountains. Nepal also has a population of 30 million people, which is highly diverse in terms of ethnicity and language. Data shows that there are more than 120 languages and ethnic groups in Nepal. Nepal is also categorized as one of the least developing countries, with a per capita income of \$1400. This poses a major challenge for Nepal across various sectors, one of which is the education sector, which is critical and requires special attention (Bastola & Sapkota, 2015).

The urgency of the education problem is reflected in the current conditions within Nepal. For example, there are 770,000 children aged 5 to 12 who still do not have access to formal education. Student performance is also a challenge, with only 50% of students in grades 3, 5, and 8 meeting Nepal's national education standards. Early childhood education attendance is also low, reaching only 51%. Literacy rates pose another challenge, with urban areas in the middle-to-upper income category at 65%, while rural areas in the lower-middle income category only reach 12% (UNICEF, 2022). The figures from that data do not come from a vacuum. There are at least several barriers that can be identified as long-term challenges for education in Nepal.

The first challenge is the presence of discrimination rooted in societal values that act as a barrier for students in accessing education. A social caste system that has been embedded in Nepal's social life. This has implications for discrimination against individuals born into lower social castes in obtaining equal access to education or participating in formal educational processes. This also impacts educational institutions, community environments, and even the smallest unit families in how they view and make decisions about education for their children. Although the state has regulated that there should no longer be any caste-based discrimination as it is unconstitutional, the reality on the ground reflects a different situation (Zhang, 2023).

The next challenge, as previously mentioned, lies in the fact that Nepal's population is highly diverse in terms of ethnicity and local languages, each with its own group of speakers. This becomes a challenge considering that out of more than 120 local languages in Nepal, only around 23 are used in the educational process, including teaching and learning activities, learning materials, curriculum development, and so on. This challenge is not only based on the difficulty students may face in learning activities, but it also presents a deeper issue related to identity for each student who comes from a different linguistic and cultural background. These students carry with them local histories, lifestyles, perspectives, and also the responsibility of preserving their cultural heritage. Without formal institutional intervention to support and protect this, there is a risk that these languages and identities could be lost over time (Regmi, 2021).

The next challenge concerns the availability and inclusivity within Nepal's education sector. There is a disproportionate ratio between students and teaching staff in Nepal, resulting in frequent cases of overcrowded classrooms due to the limited number of available teachers. This also includes concerns about the quality of the teachers themselves (Lagun & Sah, 2024), which clearly hinders the provision of equitable and quality education in Nepal. Another issue relates to inclusivity for students with special needs. The existing infrastructure is not accessible for children with disabilities, including access to schools, classrooms, and toilets. This is compounded by the absence of a dedicated curriculum for students with special needs, including trained educators, learning materials, and assessment matrices. These issues form critical points in understanding the broader picture of challenges in Nepal's education system (정대영 & Shiwakoti, 2017).

Not only education, but technology also poses a challenge for Nepal in the context of sustaining education for students. This challenge involves access to and availability of technology for the Nepalese population, especially students in Nepal. At least only 6% of students in urban areas have access to WiFi networks at home to engage in online learning. Broadly speaking, around 66% of Nepalese students do not have access to technology and the internet. Looking further into technology and internet access in public schools in Nepal, it is very limited. Out of 29,707 schools, only 8,366 have computer laboratories, and only 12% have internet connectivity. Next is related to ownership of technology such as computers, which account for 15% of total households, 84% ownership of mobile phones, and 51% covered by internet networks. Meanwhile, only 14% have minimum skills related to the internet and technology. (Ghimire, 2021).

Through the following exposition, a broad picture of the complexity of education and technology in Nepal can be seen. Limited resources, geographical challenges, the complexity of social structures, and issues in education and technology all contribute to the main problems in this case. To address these problems, active and concrete contributions are needed from every responsible actor, one of which is Open Learning Exchange Nepal (OLE Nepal). OLE Nepal is a Non-Governmental Organization (NGO) founded in 2007 in Nepal. The establishment of OLE Nepal aims to address the education problems in Nepal by opening wide and equal access to education through the integration of technology in the process. (Thapa & Sein, 2018).

This study will focus on the role of OLE Nepal in addressing educational problems through technology integration. It will be examined through the NGO role theory. The NGO role theory used in this research is the role theory by Kelly-Kate S. Pease (2019) in her book titled *International Organizations: Perspectives on Global Governance*. She explains that NGOs are organizations that have specific issues to be advocated for and specific targets to be achieved. NGOs are able to advocate for their specific issues through direct or indirect efforts. Regarding roles, theoretically there are five points explaining how NGOs can play a role in an issue. The five derivatives of NGO role theory are Collective Act Mechanism, Common Global Market, Problem Solving, Capacity Building, and Aid Provider.

Collective Act Mechanism is one of the derivatives of NGO role theory that discusses the mechanism of an NGO's role in communicating with multiple actors to solve a problem. An NGO can mediate, communicate, hold dialogues, and negotiate with all existing actors to collaborate in addressing an issue. Common Global Market is a role for NGOs to achieve welfare within a society by using an approach based on access to the international level. NGOs can advocate on issues with the state and Multi-National Companies (MNCs) to take policy steps that benefit the communities targeted by a movement. By increasing access to international markets, welfare is achieved through fair, equitable, and inclusive economic growth. (Pease, 2019).

Next is Problem Solving, where NGOs can actively contribute to resolving existing problems. This involves how an NGO can play an active role through mechanisms available within a society, such as through approaches based on values and norms, conducting research to identify issues, and directly engaging to solve the problems. The next derivative is Capacity Building, where NGOs make efforts to enhance the capacity of communities or the main target subjects in facing existing problems. This Capacity Building role is an ongoing and continuous process. It

includes not only one-time training but also continuous mentoring to monitor and evaluate problems that arise during the process. Lastly, there is Aid Provider, where NGOs can provide direct assistance to address specific issues. This assistance can come directly from the NGO itself or through the NGO's role in collecting, organizing, or distributing aid from external actors (Pease, 2019). In this study, the specific derivatives of NGO role theory that will be used are Problem Solver, Capacity Building, Aid Provider, and Collective Act Mechanism to examine how NGOs play a role in addressing educational issues through technology integration in Nepal.

## **2. Methods**

This study uses a qualitative-descriptive research type. According to Sugiyono (2015), qualitative-descriptive research is research that describes and explains the object being studied based on the situation and conditions at the time the research is conducted. This study will use a library research method with data collection techniques relying on secondary data such as books, articles, journals, and websites that are valid and credible according to academic standards. In this research, analysis will be carried out through data reduction, data presentation, and drawing conclusions. Data reduction refers to an analysis technique aimed at condensing and removing irrelevant information, and processing data in such a way as to produce appropriate conclusions. Data presentation is a technique of organizing information that guides the drawing of conclusions and decision-making. In qualitative research, data is presented in two forms: narrative text in the form of field notes, and matrices, graphs, networks, and charts. These forms combine organized information so that it becomes coherent and makes it easier for the writer to view the case study within a broader scope, and ensure that conclusions are accurate or require further analysis. Finally, the effort to draw conclusions is carried out repeatedly by the researcher until it is accurate (Miles & Huberman, 1994).

## **3. Results & Discussion**

### **3.1 Problem Solver**

The first derivative role to be used is the Problem Solver derivative. Specifically, in this case, it is about how OLE Nepal acts as a Problem Solver in the educational issues present in Nepal. OLE Nepal creates a solution-oriented effort to advocate for equal rights in access to education by developing curricula and learning materials available online and accessible through all types of devices such as mobile phones, desktops, etc. These learning modules can be accessed through a platform called E-Paath. E-Paath is an online learning module containing educational materials. It includes all the learning materials necessary to complete formal education levels. E-Paath itself has 425 learning modules. These modules can be used by students from grade 1 to grade 8. E-Paath offers several subjects available to study in module form, including English, Nepali, Mathematics, and Science (Bajracharya et al., 2021).

Through E-Paath, OLE Nepal demonstrates its commitment to equalizing open and equitable access to education for Nepalese students. This effort can be analyzed as OLE Nepal's role as a Problem Solver in addressing the issue of limited availability of learning materials and an outdated curriculum, considering the slow response of Nepal, particularly the Nepalese government, in handling domestic education challenges. Furthermore, OLE Nepal ensures that access to the learning modules within E-Paath is as widely open as possible to all students in Nepal, in order to guarantee that there is no exclusivity in the educational environment.

OLE Nepal's next effort is the creation of an online library called E-Pustakalaya. E-Pustakalaya is an online library established by OLE Nepal as a supporting infrastructure for learning and as a complement to E-Paath. Like E-Paath, E-Pustakalaya is also online and can be accessed by students using all types of available online devices. The quantity of materials that students in Nepal can read is also considerable. To date, there are 9,785 books available in E-Pustakalaya. Then, there are 3,849 audiobooks. Next, there are 3,521 learning videos created by the OLE Nepal team itself to help students understand the learning materials. These books, audiobooks, and video learning materials are collectively compiled by 4,808 authors (Nyaichyai, 2023).

This can be analyzed as OLE Nepal's role as a Problem Solver in increasing the amount of reading material available to students in Nepal. Considering the difficulties students face in pursuing education, this effort can certainly make it easier for them to master certain subjects while expanding their knowledge through the books, audiobooks, and learning videos available on E-Pustakalaya. These resources can be accessed from anywhere using available devices. Additionally, OLE Nepal continuously updates the collection to enrich the reading materials available on E-Pustakalaya. Thus, it is clear that OLE Nepal plays a role in solving the problem of limited reading resources for students through ongoing and sustained efforts.

OLE Nepal also has efforts to address educational issues with a different approach. OLE Nepal created various animations for children in or approaching early education. This program, named Hamro Ramailo Kathaharu,

consists of animations and online games. The animations are collections of folklore stories sourced from local communities, gathered and transformed into animations. To date, there are 50 such animated stories from local communities. Additionally, OLE Nepal developed 7 games to help children in early education develop language fluency. All of these features are openly accessible, free, and available online (Adhikari et al., 2020). Through these efforts, it can be seen that OLE Nepal demonstrates its consistency in addressing educational problems in Nepal. As a Problem Solver, OLE Nepal shows its intention to ensure that children in early education have access to early learning through animations and online games. Considering the low attendance rates of children in early education in Nepal, which is often minimal or skipped, this effort certainly opens access for these children while equipping them with foundational skills for the next stages of education (Joshi, 2017).

OLE Nepal's creation of online games does not stop there. OLE Nepal also developed other online games for grades 6 through 10. These games aim to promote Science, Technology, Engineering, and Math (STEM) among students in grades 6 to 10. To date, there are 14 games available that not only help students understand learning materials but also make the materials more enjoyable and engaging for them. These online games cover subjects such as arithmetic, algebra, visualization, and problem-solving through puzzle-solving approaches. Access to these games is widely open and can be enjoyed online via OLE Nepal's applications and websites. This effort can be analyzed as OLE Nepal's Problem Solving role in addressing issues of educational access and ease for students in their learning process. These online games are developed not only for early-age students but also for students from grades 6 to 10 to support their study of advanced materials while promoting STEM education among students in Nepal. (Sharma, 2021).

OLE Nepal also strives to address issues related to inclusivity in the education sector in Nepal by creating Sanketik Sikai & E-Paath as concrete steps toward establishing an inclusive educational environment. Sanketik Sikai & E-Paath is an extension program of E-Paath itself, aimed at assisting learning for students with special needs, especially those who have speech impairments or are nonverbal. Sanketik Sikai includes 280 interactive learning modules that are also explained through sign language. This learning model is integrated into Nepal's national education standards. Through this effort, it can be analyzed that OLE Nepal's role as a Problem Solver directly targets the issue of educational accessibility, particularly for students with special needs. By creating Sanketik Sikai, which is accessible online, students with special needs can pursue education with equal access alongside other students (OLE Nepal, 2023).

To complement all of this, OLE Nepal also developed Seepalaya. This program was created for students in Nepal to access learning materials from OLE Nepal in a personalized context for each individual student. Learners can measure, review, and independently track their own learning trajectory through Seepalaya. Through this program, it certainly facilitates students in managing their education by checking their own abilities. Moreover, this program can also serve as a shared platform for parents to assist their children. Thus, the learning process is not only from formal education or OLE Nepal alone, but OLE Nepal also accompanies joint efforts between parents and students to ensure the success of the student's studies. (OLE Nepal, 2024).

The next effort is how OLE Nepal integrates technology in education not only in the context of technology itself, but also how OLE Nepal ensures inclusivity in language use, especially local languages. OLE Nepal is committed to translating learning materials available on E-Paath, books in E-Pustakalaya, and animated learning videos to ensure that local languages are included in the learning process. By providing contextualization regarding the culture and history of various ethnic groups, it gives space for each student from different ethnicities to embrace their cultural identity. It also facilitates students who use local languages through cultural and societal contexts. This role can be identified as Problem Solver by OLE Nepal in addressing the issue of language diversity by actively taking concrete steps to use local languages, not only easing the learning process but also helping preserve local languages through direct intervention in its language translation policies. (ONGD-FNEL, 2024).

And the further effort by OLE Nepal in advancing technology in education in Nepal is through its latest program called Robotic and Programming. Through this program, OLE Nepal provides training and learning to students in various schools to study Robotics and Programming (OLE Nepal, 2023a). Through this learning, students are expected to build a robot through programming development. And not only that, OLE Nepal also organizes Robotics & Programming competitions between schools to provide a platform for competition for students, giving motivation and recognition to high-achieving students (Urban SDG, 2022).

### 3.2 Capacity Building

The role of Capacity Building is a derivative of the NGO role theory describing how NGOs can contribute to enhancing the capacity and resilience of the subjects who are the target of the issues being addressed. In this case, OLE Nepal acts as an NGO playing the role of Capacity Building. This role is identified through how OLE Nepal provides training for teachers across various schools. The training includes Initial Training, In-School Training, and

Refresher Training (Rana et al., 2021). The first stage is Initial Training, which is a program conducted by OLE Nepal for teachers. This training covers teaching philosophy and educational processes, aiming to help teachers understand how children absorb information and learn. The next part of the training involves familiarizing teachers with the operational mechanisms of OLE Nepal's digital learning platforms, so they become adept at using features like E-Paath and E-Pustakalaya. As a result, teachers are not only capable of operating the online learning systems but also able to integrate the provided materials into their teaching processes. (Lim et al., 2020).

The next stage of training is In-School Training, conducted by OLE Nepal trainers for teachers across various schools in Nepal. Unlike the initial training, this stage involves direct mentoring by OLE Nepal trainers alongside teachers during the actual teaching process. The OLE Nepal trainers review the lesson plans created by the teachers, providing constructive and objective feedback to ensure smooth learning. They also supervise the technical operation of OLE Nepal's online learning platform to address any technical difficulties during the lessons. Furthermore, trainers collect challenges faced by teachers in their teaching process, allowing OLE Nepal to respond directly to educators' difficulties. Independently, OLE Nepal trainers identify emerging problems, offer guidance, and optimize the teaching and learning process. They also provide specialized training for teachers who still struggle to use OLE Nepal as an online learning tool (Thapa, 2025).

The final and ongoing stage is Refresher Training. At this stage, the training is conducted to refresh general information related to the teaching and learning process. It also provides guidance and explanations regarding issues that arise from the teaching process as reported by teachers. Additionally, it creates a platform for teachers to share advice and disseminate knowledge from one teacher to another. This way, teaching experiences are shared not only about technical matters but also real-life experiences that can help improve teaching skills among teachers (Thapa, 2025). From the above explanation, it can be identified that OLE Nepal consistently and comprehensively plays the role of Capacity Building. This is demonstrated through their training programs for educators to ensure that teachers possess adequate skills not only in teaching but also a certain level of familiarity with operating OLE Nepal's online learning mechanisms. The support provided is not limited to one-time training but also includes regular mentoring and refresher training to ensure that the learning process remains aligned with national education standards and OLE Nepal's mission to guarantee open and inclusive access to education (Rana et al., 2018).

### 3.3 Aid Provider

The role of Aid Provider is one of the key functions of NGOs, involving the direct provision of assistance to address specific issues. Through this direct aid, NGOs can support those affected by a problem by delivering immediate help when it is most needed. In such cases, victims often require urgent intervention, making the role of NGOs crucial in these situations. While the forms of assistance may vary widely, NGOs typically offer support that is distinct from other actors. For example, OLE Nepal implements various forms of aid specifically targeted at improving education in Nepal through multiple approaches.

First, OLE Nepal implemented a program called One Laptop Per Child (OLPC), which aims to distribute laptops evenly to students across Nepal. This initiative ensures that every student receives a laptop provided by OLE Nepal to support a more advanced and effective learning system. In 2009, OLE Nepal distributed 2,000 laptops to teachers and students in 26 schools across 6 districts in Nepal (OLE Nepal, 2009). The program has been deemed successful, with a significant increase in distribution over the following years, reaching more than 7,000 laptops distributed to date (Thapa et al., 2020).

A tangible example of the assistance provided by OLE Nepal is the distribution of PCs to students. In implementing this program, OLE Nepal chose to use Raspberry Pi computers from the Raspberry Pi Foundation in the UK. These devices are known for their low cost and low power consumption, making them ideal platforms for delivering a variety of educational materials, such as books, videos, and interactive learning resources. This choice aligns well with the common challenges faced in Nepal, particularly limited access to electricity, ensuring that the learning process at schools is not disrupted. Through this program, OLE Nepal not only provides support to enhance the education system effectively but also contributes to creating a sustainable learning ecosystem (Thapa & Saebø, 2016).

Additionally, OLE Nepal supports students by installing networks in schools equipped with servers and Wi-Fi routers to serve areas without internet connectivity. These servers contain an offline version of E-Pustakalaya, allowing students to access a wide range of educational videos, interactive learning materials, and audiovisual content without the need for an internet connection. This setup provides a large-scale information storage solution that is more affordable than traditional libraries. The program is further supported by regular content updates, which can be done via external drives or directly at OLE Nepal's office, ensuring that students continue to have access to engaging and up-to-date learning resources under any circumstances. This initiative has proven highly effective, with over 1,700 offline E-Pustakalaya servers installed across Nepal (Clark & Barbour,

2023).

Building on the challenges of limited electricity access in Nepal, OLE Nepal continues its efforts to support equitable learning systems. To address this issue, OLE Nepal installs solar panels in schools across the country. This program includes advising schools on safe electrical system setups and implementing proper equipment protection against voltage fluctuations and lightning strikes. Additionally, the initiative is strengthened by installing backup power systems to ensure uninterrupted access to digital resources for both students and teachers, thereby supporting a safe and comfortable learning environment even during power outages.

OLE Nepal has also contributed to the reconstruction of schools affected by earthquakes in Nepal. As part of this program, OLE Nepal conducted surveys involving students and local communities, who are the primary beneficiaries of the initiative. Comprehensive funding was provided to support the education system and students in Nepal. The program was implemented with approval from the Nepalese Department of Education, along with the signing of a Memorandum of Understanding (MoU) with school committees to clearly define the responsibilities of each party (Kids of Kathmandu, 2025). Through this effort, OLE Nepal aims to revive the quality and accessibility of education in Nepal, ensuring fair and equitable access for students, even in disaster-affected or underprivileged areas. (Air Asia, 2017).

### 3.4 Collective Act Mechanism

The concept of the Collective Act Mechanism can be understood as a derivative of NGO role theory that explains how an NGO collaborates with various other actors to address the main issues it seeks to tackle. Through this collaborative mechanism, NGOs can leverage communication, dialogue, and negotiation not only to request support from multiple stakeholders but also to find solutions that do not harm any party involved. This ensures that the collective mechanism runs smoothly without disadvantaging the issue's target group, the NGO itself, or the other collaborating actors. In this context, various efforts by OLE Nepal as an NGO can be identified in engaging multiple actors to secure and fulfill their mission of addressing educational challenges in Nepal through technological approaches.

OLE Nepal has established a direct collaboration with the Centre of Education and Human Resource Development, a government department in Nepal responsible for education and human resource management. Through negotiation, the Nepalese government has issued several regulations that provide legitimacy and a legal framework for OLE Nepal's operations within Nepal. This includes domestic policies aimed at integrating Information Communication Technology (ICT) into the national education system, with OLE Nepal acting as a key strategic partner in implementing these initiatives. Furthermore, OLE Nepal consistently advocates for educational issues and pushes for increased allocation of Nepal's national budget toward the education sector. In relation to the Nepalese community, OLE Nepal also works closely with local ethnic communities to ensure the translation and continuous development of learning module materials. This effort aims to provide cultural context within the teaching and learning process for students across Nepal (OLE Nepal, 2018).

OLE Nepal also collaborates with the local government of Lalitpur Metropolitan City (LMC). As one of Nepal's metropolitan cities, LMC regularly holds meetings with OLE Nepal to review progress and establish a communication platform between LMC and schools. This communication platform functions as oversight to ensure the successful integration of ICT into education within LMC and other regions. It also helps monitor the success of OLE Nepal's Robotics & Programming programs across various schools. Additionally, OLE Nepal has partnered with Edutech Nepal, an education and technology organization based in New Zealand with a bureaucratic presence in Nepal. This collaboration has concretely resulted in the establishment of 240 computer laboratories distributed throughout various regions in Nepal (OLE Nepal, 2018).

The next collective mechanism developed by OLE Nepal is its partnership with ONGD-FNEL, an education-focused NGO based in Luxembourg. This collaboration significantly contributed to the creation process of the animated stories in Hamro Ramailo Kathaharu. Furthermore, OLE Nepal also works with Plan International Nepal, a humanitarian NGO originally founded in Spain and operating in multiple countries including Nepal. This partnership has concretely resulted in the development of Sanketik Sikai, an inclusive educational platform designed specifically for speech-impaired or nonverbal learners. Additionally, the collaboration supports the installation and distribution of E-Pustakalaya and equips school computer labs with Raspberry Pi computers and KVA Solar System units (OLE Nepal, 2018).

OLE Nepal's next collaboration is with the Rotary Club of Tripureshwor. The Rotary Club is an international non-governmental organization (INGO) founded in the United States, with numerous branches worldwide, including one in Nepal. Together with OLE Nepal, the Rotary Club of Tripureshwor contributes to the training and establishment of offline E-Pustakalaya servers, as well as the distribution of tablets to various schools (OLE Nepal, 2018). The next collaboration is between OLE Nepal and the KDDI Foundation. The KDDI Foundation is an

international organization based in Japan that focuses on addressing social issues and sustainability through ICT approaches. This partnership has resulted in several key outcomes, including the enhancement of 163 learning modules on E-Paath, support in implementing the Robotic and Programming program in various schools, and providing training and installation of offline E-Pustakalaya servers in multiple schools. Additionally, the KDDI Foundation has contributed to the development of materials that are accessible for visually impaired and speech impaired students, integrating ICT to promote inclusive education (KDDI Foundation, 2025).

The role of the collective mechanism can be further identified through OLE Nepal's collaboration with Kids of Kathmandu. Kids of Kathmandu is an NGO founded and operating in Nepal to support children in the country. Through their partnership, OLE Nepal and Kids of Kathmandu successfully built four schools in Nepal (Kids of Kathmandu, 2025). Next is the collaboration with the Phoenix Foundation, a charitable organization based in Switzerland. This partnership has concretely expanded OLE Nepal's programs to various regions within the country. Additionally, OLE Nepal received a grant from MIT J-WEL, an initiative supporting innovators in the education sector established by the Massachusetts Institute of Technology (MIT) and the Jameel Community organization from Saudi Arabia. The grant was fully utilized to develop all of OLE Nepal's educational games in collaboration with experts from MIT J-WEL (OLE Nepal, 2019). Lastly, OLE Nepal also partnered with the Air Asia Foundation, the Corporate Social Responsibility arm of the Air Asia airline. Through this collaboration, they successfully built four schools in four different regions in Nepal with funding of USD 200,000 from Air Asia (Air Asia Foundation, 2017). OLE Nepal also collaborates with UNICEF, the United Nations agency for child protection. Together, they work on the development of E-Pustakalaya and Sanketik Sikai programs (OLE Nepal, 2018).

Based on the data presented, it can be analyzed that OLE Nepal, as an NGO, plays the role of a Collective Act Mechanism. This is demonstrated through its efforts in building partnerships and collaborations with various actors from domestic, international, and global organizations. OLE Nepal successfully engages these diverse stakeholders to collectively advance its initiatives in addressing educational challenges in Nepal. Through this collective mechanism, OLE Nepal effectively communicates specific issues to multiple actors across different countries by facilitating dialogue and negotiation, which ultimately contributes to the success of its programs.

#### **4. Conclusion**

Nepal is a South Asian country facing numerous challenges in the education sector. The complexity of these challenges stems from various on-the-ground factors such as geographical conditions, financial constraints, and social structures within Nepalese society, all of which contribute to the educational issues in the country. One key actor addressing these problems is OLE Nepal, an NGO focused on education through technological approaches. The role of OLE Nepal can be analyzed using NGO role theory, specifically as a Problem Solver, Capacity Builder, Aid Provider, and Collective Act Mechanism. As a Problem Solver, OLE Nepal has developed several initiatives including E-Paath, an online educational platform containing learning modules; E-Pustakalaya, a digital library accessible to students across Nepal; educational online games covering various subjects; Hamro Ramailo Kathaharu, which features animated folklore stories and educational videos; Sanketik Sikai, providing learning materials tailored for students with special needs, specifically those who are visually or speech impaired; and a Robotic & Programming program offered to various schools, including inter-school competitions.

In its Capacity Building role, OLE Nepal provides training for educators to enhance their technical skills in operating online learning systems and offers ongoing support to address challenges arising during the learning process. As an Aid Provider, OLE Nepal distributes and procures devices such as laptops, computers, and tablets, installs offline servers in numerous schools, and supports the development of computer labs and school infrastructure. Finally, in the role of Collective Act Mechanism, OLE Nepal collaborates with various stakeholders, including the central government, local governments, and multiple national and international organizations, to effectively advance its mission and programs throughout Nepal.

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