Universal access to education: A study of innovative strategies

Coordinator: Rob van Tulder

Group Members:

Rishabh Goel (313941)
Cherique Mac Donald (305829)
Alphadian Parahita Winarno (313933)
Sharon Tsai (315060)
Executive summary

One of the eight issues outlined in the 2001 Millennium Development Goals was that of achieving universal primary education. Education as outlined by innumerable developmental economists plays an important role in achieving high economic growth and freedom. However, most of the nearly two–billion children in the developing world are inadequately educated, or receive no education at all. One in three does not complete the fifth grade.

Education is a crucial factor in ending global poverty and as such accessibility to education throughout even the poorest nations in the world becomes a pressing issue. With education, employment opportunities are broadened, income levels are increased and maternal and child health is improved. In countries with solid education systems in place, there are lower crime rates, greater economic growth and improved social services. In areas where access, attendance and quality of education have seen improvements, there has also been a decrease in the spread of AIDS. It is a must-do issue to ensure that every child has finished the complete primary education and to enable that every child can further develop intellectually and socially.

Developing countries usually suffer from remote location, lack of infrastructure like inadequate telecommunications facilities, lack of trained staff, the cost and the availability of computers and electricity. These are all major problems that bring on poor quality in education and lack of access to it. There is a need for innovative methods of delivery which can help bridge this gap and thus provide universal access to education.

In this paper, an effort has been made to analyze the nature of the issue and the role that governments, firms and NGOs are currently playing to overcome this problem. We have specifically looked at various existing models and rated them on their scalability, replicability and sustainability. We have also analyzed codes of conduct of the various actors as far as possible to identify which CSR strategy they are following. We find that most of the firms are either inactive or reactive regarding the issue of education. However, some of the companies like IBM and Microsoft are taking a more active role in solving this important global issue.
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1. Education: Definition and dimensions

The Four Pillars of Education, portrayed in *Learning: The Treasure Within* (Delors et al., 1996) - the report to UNESCO of the International Commission on Education for the Twenty first Century -, reflect the different phases of education human beings go through in life. Education evolves throughout our lives, taking on many shapes and forms, which should be considered one all-embracing concept instead of thinking of these exclusively. Similarly, the four pillars of education cannot be positioned merely in one stage in an individual’s life. The time of when in an individual’s live education should be offered and the fields that such education should encompass, ought to match each other and be interconnected in such a manner that all individuals can gain the most from their own particular educational environment throughout their entire lives.

*Learning to know, Learning to do, Learning to live together and Learning to be* represent these four valuable pillars of education.

Education is considered the driving force of change towards sustainable development. Besides providing skills such as scientific and technical expertise, education also offers the motivation, justification and social support for pursuing and utilizing them. The international community is convinced that, by means of education, one should stimulate the values, behavior and way of living necessary for sustainability. The route to learning how to make choices that regard the long-term future of the economy, ecology and equity of all societies is considered as education for sustainable development. Constructing the ability for such long-term philosophies is a primary mission of education.

The United Nations Decade of Education for Sustainable Development includes several main fields, containing various objectives and audiences: Promotion and improvement of Basic Education; Reorienting Existing Education Programs at all levels to address sustainable development; Developing Public Awareness and Understanding of Sustainability; Providing Training; and Involving Higher Education.
An important condition of education for sustainable development is quality education. Education for All (EFA) and the Millennium Development Goals (MDGs) initiated the notion of quality education into their objectives. “Providing any education, regardless of quality, is not the goal. A myth exists that access must come before quality. Both can occur simultaneously. (UNESCO)”

The definition of the concept of quality education continues to be a contentious topic.

1.1 Lack of education and its link with other issues

The issue of lack of access to education in the developing world is related, either directly or indirectly, to a range of other important issues located in the societal triangle. It is related to issues that fall under the primary-, interface-, and the growth regime responsibilities. The below figure depicts some of the issues linked to our issue topic.

**Figure 1.1:** Issue of lack of access to education, including related issues placed in the societal sphere

Source: Adapted from Van Tulder and Van der Zwart, 2006.
In addition, as following an explanation is given of a few of the key issues connected to our issue topic. The red coloured boxes in the above figure refer to our topics of interest.

One of the most vital issues the lack of access to education is associated with is poverty. The UN Millennium Project has recognized solutions to eradicate poverty through the delivery of education. The provision of education to the poor supports a society, in which both power and growth are shared more equally, most likely leading to a reduction in poverty. In addition, a more fair distribution of economic and political power will avoid the clustering of power and prosperity, which is sometimes linked to limited access to education for the less fortunate (Birdsall, 1999; Birdsall and Londoño, 1997).

Health and diseases is another main issue to which the lack of access to education is indirectly linked to. Currently, women are the major victims of HIV/AIDS in the developing nations. Through education, women can look after themselves by providing them information regarding the disease and stimulating them to become more successful in claiming their reproductive and sexual rights. Apparently, youngsters - between the ages of 15-24 years - who have finished primary education are less than 50% as likely to get infected by HIV as those with little or no education (Herz and Sperling, 2003).

Obviously the phenomenon of illiteracy holds a direct link with the lack of access to education. Research shows that at least five to six years of education is necessary in order to master basic skills. It has been found by the United Nations Educational, Scientific and Cultural Organization Institute for Statistics that 10% of children are literate after 3 years of schooling, 70% after 6 years, and 100% reach literacy after 10 years of basic education (Ellis, 2003).

The issues of hunger and education have a bi-effect on one another. Many studies throughout the world demonstrate that hunger has a negative impact on education. It has been suggested that hunger has an influence on cognitive skills and as a result limit a child’s capacity to learn (Simeon and Grantham-McGregor, 1989; Seshadri and Gopaldas, 1989; Vermeersch and Kremer, 2004). Hence the International Food Policy Research Institute concluded that “hunger is
a barrier to learning…” (IFPRI, 2001). In contrast, education seems to positively affect hunger as shown by Herz and Sperling (2003). They pointed out that by educating female farmers, more productive farming will result, which in turn was responsible for over 40% of the reduction in famine attained between 1970 and 1995.

*Gender inequality* is often linked to the issue of education. Eradicating discrimination against females taking part in schooling is believed to be a valid tool for empowering 50% of the planet’s population (Worldbank, 2007). Furthermore, guaranteeing that all children obtain proper education will aid in defeating global inequality.

A revolutionizing link is presented by the relation between the issue of *innovation* and education. This relation can be viewed from both sides. Thus, it can be stated that innovation has a positive impact on the development of education (this also includes access to education), on the one hand. Thanks to the development of ICT a wide range of innovative solutions are being created in order to delivery quality education to a larger number of people living in the poorer nations. For instance, technological solutions enable the use of distance learning by means of amongst others radio and television. Internet and video conferencing have been successfully implemented in the rural as well as the urban area in Chile’s Enlaces program and South Africa’s SHOMA program (De Moura Castro, et al., 1999). On the other hand, it can be suggested that higher quality education - reaching all parts of the world - makes it possible for innovative ideas to be created. In conclusion, innovation can be viewed as both a solution and driver of quality education.

### 1.2 Differences between the developing and developed nations

More than 1.1 billion people still live on less than a dollar a day and the socio-economic lot of the multitudes of poor in sub-Saharan Africa, Latin America and West Asia was no better today than 11 years ago. Nowadays, over 90 million kids are deprived from attending education. In addition, in the beginning of the 21st century about one billion people were not capable of reading or signing their names (UNICEF, 1999). Moreover, a study has found that development
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In Western Europe, figures for higher education measured in 1995 range between 35% and 50% or the majority of the population recorded as enrolled in higher education. North Africa and the Arab countries range between 5% and 35%, with the majority of countries in the MENA (Middle East and North Africa) at 15% to 35%. In South Asia, the figures are lower, between 15% and below 5% (Pakistan and Afghanistan) with all but southern Sub-Saharan Africa below 5%. Most of Eastern Europe is on a par with the wealthier Arab countries. In developed countries, they have good infrastructures, enough computers and many books in libraries for the students, better learning conditions in school, enough teachers, and many technological setups around their living.

If the lack of access to education in the developing world continues to grow the gap between the poor and rich will widen, leading to a rise in worldwide inequality, creating more global despair and conflict.

1.3 Barriers to access to education

An important question that needs to be addressed in order to make education more accessible to the public involves the necessary elements that enable access to good education. Creating universal access to good education is a challenging objective that requires sufficient time and proper sources. A host of factors need to be addressed first of which good infrastructure is one of the key ingredients to reach this goal. Facilities such as electricity, internet and computer access, class rooms, schools and other communication systems are all important elements to enhance delivery of education. Other major elements that are determinants in opening up the doors to quality education in the developing nations are the national legal system and the public awareness of the necessity of education as a tool to growth and success. Below more specific barriers to education, which at the same time are necessary elements to enable educational access, are provided.
**Education System**

There are many barriers that hinder the provision of access to education. These may stem from social, economic, cultural and political areas. One of the barriers is derived from access to the education system itself. Schools have to be able to offer comfortable environments/settings in order to stimulate the learning experience of all pupils, for example, countries’ infrastructure, sufficient school buildings, adequate teachers, learning materials, interesting educational content, basic utilities such as electricity, water and sanitary facilities. Moreover, it is also important to give proper training and support for teachers.

**Poverty**

Poverty is one of the major problems in developing nations. One of the reasons why children are out of school is because families are not able to pay for their children’s education. They usually have to choose between attending school or to work in order to support their families. Another critical issue related to poverty is poor nutrition which leads to illnesses, obstructing educational capabilities.

A report from UNESCO shows that there is a reason why children in developing nations are not attending school. It is indicated that regional non-enrollment percentages vary in the incidence of child labor, with Africa taking top place (41%), followed by Asia (21%) and Latin America (17%). In Africa, population growth, a weak economy, famine and armed conflict have contributed to keeping child labor high and school attendance low.

**Social and Cultural Barriers**

Social and cultural barriers in certain countries also have an impact on children not attending school. There exists inequality in education which sometimes could lead to families having to make a decision about which of their children can go to school. In this case, there is a gender gap as more boys attend school than girls, who drop out of school, for example because of early marriage and pregnancy. According to UNICEF, every year, at least 9 million more girls than boys are not getting an education. This is due to certain countries’ tradition and culture, which
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require girls to marry at a young age and even in some countries as young as 14 years old. By the time they are married, they need to drop out of their school. Data from 1996 show that in India 38% of girls aged 15 to 19 were married.

Another factor in hampering education to developing nations is due to the fact that schools sometimes are not very secure places for kids. There are still issues about intolerance, discrimination and violence. For example, girls sometimes are often the object of sexual harassment and abuse from their teachers as well as their peers. Therefore they prefer not to go to school.

**Crisis and Emergency**

Since some countries still cope with crisis and emergency situations, proper educational services are dysfunctional, such as countries which deal with wars and political conflicts. Teachers and students often have to find some location in their refugee camps in order to teach and learn.

1.4 Innovation in education

What is the role of innovation in sustainable education? Before answering this question, we need to try and define the word innovation. According to Peter Drucker (2005), innovation is “change that creates a new dimension of performance”. The Innovation Unit says it is “the successful exploitation of new ideas”. In their vision the primary kinds of innovation belong to incremental (“something is adapted or modified”) and radical innovation (entirely new ideas).

Tidd et al. (2005) identified 4 different classifications of innovation, namely product-, process-, positioning- and paradigm innovation. **Product Innovation** is recognized as new products or improvements of products such as new models of mobile phones. **Process Innovation** occurs a part of the process is enhanced in order to yield benefits, for instance Just in Time Management. **Positioning Innovation** reflects a repositioning of for instance a particular product or service offered. Furthermore, **Paradigm Innovation** is where significant shifts in thinking result in
change. During the period of the unaffordable mainframe, individuals such as Bill Gates focused on offering a home computer for every person.

Throughout the years there have been many changes in the manner education is designed and delivered in different parts of the planet. By means of differing innovative methods education is being delivered in a more efficient and effective manner to a wider group of people all over the globe. Currently, technology is a key driver of change and often plays a chief role in innovations in design and delivery of education. There exists a great range of opportunities for greater and wider-spread of education with the implementation of technological innovations.

Regarding our issue, it can be concluded that innovation in the educational system can be associated with a combination of the process and paradigm innovation. As innovations, in particular technological ones, in education can improve the delivery process of schooling to a wider public in a more efficient and effective manner while at the same time major changes in thinking result in making education more accessible to all individuals instead of to only a particular higher society class.

In our paper, innovations in terms of technology will be concentrated upon. Using technology in education can enhance and improve access of learning. Education in which students take academic courses by accessing information and communicating with the instructor not simultaneously over a computer network is called distance learning. Here are some types of technological applications in distance learning education:

- Distance education utilized regular mail to send written material, videos, audiotapes, and CD-ROMs or other media storage format (e.g. SD card or CompactFlash cards) to the student and to turn in exercises.
- E-learning courses using interactive video, WebCT, and on-site discussion group. This can motivate students to write, draw, investigate, research, and learn better on the websites. Also using WebQuests, online libraries and other educational sites can make the education more accessible.
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- Virtual reality using modern technological tools to make students and teachers work with information in a way that everybody can attend the class all over the world and discuss together without district barrier.
- Online Learning, such as McGraw-Hill’s online, many classes are described there and students can register and take opening lessons for free. Internet conducted either synchronously or asynchronously is more convenient.
- Using the multimedia capabilities of the web to let students literally have the world of information at their fingertips. CD-ROM where the student interacts with computer content stored on a CD-ROM. This way is more available and much easier for students to grasp.

The same type of technologies opens up doors for the education systems in the developing world. However, due to poor nation’s lack of infrastructure (i.e. low internet band-width, lack of electricity, low computer access, limited class rooms, etc.) and relatively low value perception of education, difficulties in implementing some innovative solutions may arise. The challenge is to make sure that innovation is constructive in enhancing education for a great deal of people who remain “under-served” in this world.

1.5 Education – A public or a private good?

As stated previously, the main problem concerns the lack of access to education in the developing world. Prior to addressing this issue, we need to study the nature of the problem. This is where we ask the question whether access to education is considered a public good or a private good. And, in what context can access to education be seen as either one of these goods? First of all, the terms public goods and private goods need to be defined.

According to Oxford University Press, public goods are goods that are freely available, either naturally (i.e. air) or from the state (i.e. education in most developed nations). However, public goods can also be supplied by the private organization. The term is broken down into pure public goods and impure public goods. The former refers to goods that are provided for all such as
national defense while the latter involves goods like libraries that are provided at particular places, thus these are more available to others.

Paul A. Samuelson (1954) defined a public good, or as he named it a "collective consumption good", as follows:

“...[goods] which all enjoy in common in the sense that each individual's consumption of such a good leads to no subtractions from any other individual's consumption of that good...”

This refers to the feature of “Non-rivalness”. The second property of a pure public good is what is called “Non-excludability”. This means that no one individual (including non-payers) can be excluded from the gains of the good. A private good possesses the opposite properties of a public good.

When judging whether education can be considered a public or private good, one also has to take into account the classification of a private and public school. In general sense, usually a public school is supported by governmental funding and made available to a larger group of people while a private school receives private financing and is often targeted at a smaller target group.

The issue of education marked as either a public or private good is contentious throughout different parts of the world given the fact that some countries use a different public-private mix of educational services (James, 1993; Levin, 1987). James (1993) indicates that there is a systematic higher percentage of private enrollments in developing compared to developed nations regarding secondary schooling. It was found that low public spending, resulting in excess demand, is the main determinant of this larger private enrollment proportion in the developing world.

It is rather difficult to assume that education strictly falls under only one of the public or private classifications. This is dependent on several factors such as the country, context, public/private school category, level of education, the accompanying benefits, and so forth. Levin (1987) classified education as a public or private good based on the type of benefits gained from these. He indicates that schooling can be considered a private good when private benefits
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can be reaped such as individual productivity, earnings, health and efficiency in consumption. On the other hand, schooling is seen as a public good when it serves the nation, region and community by focusing on a range of social necessities. For instance, schooling contributes to democracy and social and economic growth.

Furthermore, higher education functions as a public good because it generates and disseminates socially useful knowledge. For this reason, public institutions finance higher education institutions (public and private). One value that the university can contribute to society, in return for this funding, involves collaborating with the public administration to help improve its operation and to provide technical and specialized support for social welfare systems, including public services and social guarantee programmes.

In addition, in some developed countries such as Sweden, higher education is provided for by the government and made available to everyone willing to attend school. In this sense, education could then be considered a public good.

On the other hand, education can also become a private good when, for instance, access is limited to only an elite group of students who can afford to pay the high tuition fee or when a particular type of education is offered to a certain target group. Vaknin (2005) indicates that education used to be a private good with positive externalities and that thanks to technology developments and governmental financial support this has changed into a non-pure public good.

Similarly, James (1993) regards education as impure public goods, which can be funded by the public as well as the private sectors as it generates benefits from both sides. It is argued that even when education is primarily financed by the government, public or private management can be applied. In other words, varying combinations of public and private provision in terms of financing and management are possible feasible and are in reality seen in different nations.

As a result of societal needs emerging for organizations that link different institutions, a bunch of hybrid organizations, functioning between the three societal spheres (state, market and civil
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society), emerge. One of these hybrid organizations is represented by the private institution, public goods combination involving organizations that function at the state and civil society interface. This includes amongst others public universities and schools and is partially supported by public and private funds depending on the particular nation. Public financial support of primary and secondary education, in numerous developing nations, is significantly lower than that of the developed countries. Therefore, poor education in the developing world can be attributed to inadequate government spending in education (Van Tulder and Van der Zwart, 2006). As a result of insufficient government budgets in the developing countries, a growing number of international NGO’s and firms, such as UNESCO and Microsoft respectively, are actively engaging themselves in the provision of this particular public good to the less fortunate.

Technological innovations, such as distance learning, as a an attempt to make education more accessible can be considered a club good rather than a private or public good as this particular good can be considered excludable and non-rival. In other words, while some can be excluded from the use of distance learning by means of for instance computers, an individuals’ consumption of this good does not result in a decrease of another one’s consumption. So though technology access to education now is considered more private than public, technology acquisition and diffusion of education is the goal that needs to be achieved. Developing countries need to improve their access to education in both high tech and traditional sectors have already been discussed for a long time. But the problem is that the access to education in high tech is not being acquired easily in developing countries. The situation now is that the higher income groups have more ability to acquire existing technology, improve and adapt it for the particular individual. Government, organizations and local enterprises should incorporate and focus on helping the society to absorb and acquire technology knowledge and make the education become more public and accessible for everyone by widely delivering technological innovation in education to the under-served parts of the world

In conclusion, given the fact that proper access to education in general offers both public and private gains, benefiting all three societal spheres in a particular nation, all institutions have some sort of ownership. If the issue of limited access to education in the developing world needs to be
dealt with in an effective and efficient manner, all three societal spheres will have to be involved as these complement one another. However, given the general nature of both education and technological innovations such as distance learning, collaboration between the state and civil society deserves primary attention.

1.6 Lack of education: Causes and Consequences

Causes

Access to quality education is very crucial for every country. It is the basic foundation for a wide range of other critical issues such as reduction of unemployment, which in turn can lead to a decrease of poverty. However, not every country can easily obtain access to education, particularly in developing countries. There are numerous challenges which are the cause of this problem: insufficient numbers of teachers being trained, teachers leaving the profession, and too few classrooms in developing countries. It should also be noted that the quality of the training itself might not yet be substantial. Developing countries also usually suffer from remote location, lack of infrastructure like inadequate telecommunications facilities, lack of trained staff, the cost and the availability of computers and electricity. These are all major problems that bring on poor quality in education and lack of access to it.

Consequences

Achieving universal primary education falls under one of the UN Millennium Development Goals. Worldwide scenarios paint a rather depressing picture of the availability of education for the poorer nations. Nowadays, over 90 million kids are deprived from attending education. In addition, in the beginning of the 21st century about one billion people were not capable of reading or signing their names (UNICEF, 1999). Moreover, a study has found that development in education stagnated throughout the phase of globalization, from 1980 until 2000 (Weisbrot, et al., 2001).
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Still, according to the Worldbank, substantial improvement has been made throughout the period of 1994-2004; the average primary education completion level has increased with 12% (from 62 to 72%). Nonetheless, Sub-Saharan Africa and South Asia probably may not attain the goal of having all kids of applicable age finish primary school by the year 2015. In the period of 2001-2002 it was shown that around 100 million children were deprived from going to school, 45% of them from the above mentioned regions (Worldbank, 2007).

Limited access to education in the developing nations entails a host of other related social, political and economical problems. The road to economical growth and prosperity in the developing world will either stagnate or be bound to end altogether, if the progress of limited access to education fails to succeed. This will deprive many poor nations from attaining a significant position on the international trade arena and disallow them to contribute something valuable to world’s economic growth. The gap between the poor and rich will widen, leading to a rise in worldwide inequality, creating more global despair and conflict.

2. The problem, the stakeholders and existing solutions

Based on the above discussed matters the problem was defined as the lack of access to education to a wider group of people in the developing nations. Given the fact that the developing world is in greater need of quality and accessible educational systems we have chosen to probe into this education issue in this particular region. Furthermore, given the varying contexts related to education it is rather unfair to assign the responsibility to only one specific societal sphere. Therefore, we believe that this issue should be in the hands of the society as a whole. Finally, as stated previously, innovation can create many opportunities for the education system in poor nations, while at the same time some challenges need to be overcome in order to ensure a more smooth implementation process.

In an attempt to solve the problem we link this issue to innovation. Therefore, our research question is as follows:
“How can education systems assimilate technological (and other) innovations into program design and delivery in order to improve efficiency, control costs, and expand delivery of education to larger numbers of people?”

### 2.1 Primary and secondary stakeholders

The issue of lack of access to education related to innovation involves broadly; governments, political leadership, politicians, civil society leaders, citizens, parents, children, and many others outside the education system. However, in attempt to identify strategic and innovative solutions it is vital to be more specific and determine the key stakeholders first.

A number of entities and groups take on particular roles and responsibilities at different levels namely, local (sub-national), national, regional and international. Stakeholders may be part of the state (government or intergovernmental), civil society (NGO’s, etc.) or market sphere, at each level.

**Primary stakeholders**

Besides immediate stakeholders such as individuals in the developing world - in particular children - who are in need of learning or who just don’t realize its importance yet, an equally central role is taken by the national education institutions. This refers to all schools providing some sort of education in the developing countries. As schools are primarily in charge of the actual provision of education to individuals, they can also enable the provision of more sustainable education in the form of for instance distance learning. A main innovative tool to sustainable education provision is distance learning. As noted previously, distance learning entails a host of advantages that facilitate learning in a new and exciting way, throughout different regions of the globe. Nevertheless, distance learning also brings about disadvantages to teachers who could be partially replaced by new teaching instruments. Another key primary stakeholder involves local governments who are mainly responsible for the financial and physical means that enable good education delivery to the population. Inadequate government spending in the education sector is primarily blamed for poor education as an aspect in hampered national development (Van Tulder and Van der Zwart, 2006). Therefore, local
governments will continue to face increasing pressure coming from outside organizations in order to tackle this problem. At the same time, if the accessibility to good education is to be improved the entire nation including local governments will be able to reap its benefits in the long-term through economical, social and political developments.

**Secondary stakeholders**

*Trade unions* that respect and defend teacher’s rights also are affected by sustainable educational development. The International Confederation of Free Trade Unions (ICFTU) is a powerful and key player in this particular group. The ICFTU has over two hundred affiliated organizations in more than 150 countries and areas on all five continents. It is a confederation of national trade union centers, each of which connects the trade unions of that particular country. Innovation in education systems can have both a positive and negative impact on the international confederation. On the one hand, the range of education opportunities that emerge supports a number of their activities such as eradication of child labour and education programmes for trade unionist all over the globe. On the other hand, as technological innovation may form a threat by partially replacing teachers in the long run, this will have a negative impact on the organization.

There are various major *NGO’s* that are actively involved in delivering sustainable education to the poor. United Nations Educational Scientific and Cultural Organization (UNESCO) devotes to improve education through projects, advice, capacity-building and networking. United Nations Children’s Fund (UNICEF) focuses on the most disadvantaged children through a range of innovative programs and initiatives. The organization’s work is contributing to the realization of the 2nd millennium development goal by 2015. Next, Global Campaign for Education is the organization that promotes education as a basic human right. It brings together major NGOs and Teachers Unions in over 120 countries to work in solidarity towards their vision of universal primary education. Amnesty International (AI) is another chief stakeholder strongly involved in campaigning for internationally recognized human rights. AI’s view is a planet in which every individual benefits from all the human rights preserved in the Universal Declaration of Human Rights and other international human rights standards. According to article 26, the following educational rights are brought forward:
1. Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and higher education shall be equally accessible to all on the basis of merit.

2. Education shall be directed to the full development of the human personality and to the strengthening of respect for human rights and fundamental freedoms. It shall promote understanding, tolerance and friendship among all nations, racial or religious groups, and shall further the activities of the United Nations for the maintenance of peace.

3. Parents have a prior right to choose the kind of education that shall be given to their children.

The World Bank is an essential foundation of financial, technical and advisory support to developing countries all around the world. Their mission is targeted at global poverty reduction and the improvement of living standards. This world renowned organization appears to be the world’s largest external funder of education. They have transferred around US$36.5 billion in loans and credits for education since they started lending in this sector in 1963. This proofs that the World Bank is an indispensable element in the global aim for universal education.

NGO’s like Pratham and Agastya in India have started Mobile Labs and other innovative ways to reach out to the rural uneducated children.

As the only tripartite multilateral agency in the world, the International Labour Organization (ILO) is committed to providing respectable jobs and improved standards of living to people in both developing and developed countries. Moreover, they are specialized in the significant role employment issues play in creating economic development and progress. Even though this prominent organization holds no direct link with education, it is yet a vital stakeholder that both is influenced and has an impact on the educational situation in poor countries. Through their dedication to enhancing living standards and working conditions, access to education can be widened as economic development will result, creating more financial resources to invest in the
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education sector. Likewise, with the help of an improved education system more doors will open for people in terms of career opportunities.

Companies such as Microsoft, IBM, and Intel also have taken initiatives like distance learning to increase the access to education. Furthermore, universities in richer nations enable the use of technological innovation methods, such as MIT which has Open Courseware (online courses) for further dissemination of knowledge. The issue of lack of access to education has created various business opportunities for these institutions as they actively seek for innovative ways to approach this problem.

Other critical players are International governments. Usually, governments in rich countries hold the power and legitimacy to establish necessary and solid relations with governments of the poor nations to stimulate development of their educational systems. A strong and constructive relationship between these governments can be considered a gateway to enabling proper access to education.

2.2 Existing solutions

Government initiatives in Developing Nations

The following are some of the proven solutions implemented by government in some developing nations, which have helped in increasing millions of school children:

- Elimination of school fees, which resulted in increasing number of school enrolment. In Uganda (23%), Malawi (43%), and in Kenya 1.5 million more children entered school.
- The Female Secondary School Stipend Program in Bangladesh. The objective of this program is to increase girls' enrolment in secondary school, and their job opportunities as teachers and health and family planning workers. It also helps to delay girls' marriage.
- National program of scholarship has been developed for girls and ethnic minorities from poor and remote provinces in Cambodia. This program aimed to reach 15,000 recipients.
• Food incentives in Bangladesh. According to a study of the national Food for Education (FFE) program in Bangladesh, enrolment in FFE government schools increased by 41 percent for girls.

• In some countries, where education system has been inaccessible and dysfunctional, such as Kosovo and Guatemala, communities in those countries have managed to create simple schools and educational activities for their children.

• Satellite schools in Bangladesh aimed to help disadvantaged children to enter school. Originally, there were 200 satellite schools established. By the year 2002 it grew to approximately 2,000. They are paid by the local government, managed by women teachers and chosen by local management committees. There have been a high number of attendants, which has led the government to announce the establishment of 20,000 such satellite schools over the next few years.

• In early 1990s, government in Guinea declared girls education as their national priority. Together with support partners, they created programs that helped pregnant students, supplied free textbooks, improved teacher working conditions and enhanced the number of female teachers. By the year 1999, the program resulted in doubling the number of girls in school, and also increased school boy’s rates by 80%.

• In Brazil, there is Bolsa Escola, a nationwide education grant system that provides families a monthly fund to help their children go to school. As a result, 25 % of the country school-age children (40 million) able to get a basic education.

• The Ministry of Education in Uganda has answered to the HIV/AIDS issue, by improved the quality of teachers’ training and sex education programs in school as well as on the radio. According to the country’s AIDS Commission, this commitment has helped to lower the rate of new infections among 15-19 year olds by almost 50%.

**Communities and International Organizations/Corporate Sustainable Stories**

• Bunyad Literacy Community Council (BLCC). Bunyad is a non-government and non-profit organization. It was established in the year 1994. The objective of this organization is to provide education for girls in the rural areas through non-formal methods. Besides that
Bunyad also engage in the issues of child labor, women’s empowerment, saving and micro credit, community development, reproductive health and environment, poverty reduction.

- **Community Learning Centres (CLCs).** This organization was created in 1995 and currently engages in eighteen countries across the Asia-Pacific Region. CLCs aimed to provide community development for individuals through life-long education for adults, youth and children of all ages. The core targets are pre-school, drop-out school children, women, youth and mature people.

- **The Barefoot College.** This organization created in 1972 by local people in Tilonia, Rajastan. The objective of this organization is to provide practical knowledge and skills for poor people through a learning-by-doing method of education, for example health, basic literacy and aid skills. In this organization, all of the activities are connected and workers are encouraged to move from one section to another.

- **Community Schools established in the year 1992 by the Egyptian Ministry of Education and UNICEF.** They worked together, the Ministry provides facilitator and textbooks, and UNICEF is in charge for the development if the programs. Communities also plays important role in provides space and make sure that children attending school and organize the schools through and education committee.

- **UNESCO worked together with PAU Education, as Spain publisher and ENDA Tiers Monde provide Malian and Honduran street children education training and chance to expressing themselves through texts and drawings, which published in The White Book of our Future.**

- **The Tay Ninh Blind School Project was established in March 2000 by UNESCO and the Christina Noble Foundation to deal with blind children’s needs.** The project gave more than 50 children opportunity to attend classes and develop mobility and orientation skills. It is also gave the chance to learn about creative writing, literature, math, lesson in Vietnamese, basket weaving, massage and music.

A number of businesses, NGO’s and governmental organizations have taken various initiatives towards dealing with the issue of access to education. These entities represent only a proportion of organizations as part of the education solution. Below a few important organizations (business
firms, governmental organizations and NGOs) are discussed, based on their educational involvement. First we provide several reasons as to why these organizations have been selected.

Microsoft

The reason why we chose Microsoft, it is because Microsoft places great emphasis on innovation, and thus they have invested significantly in supporting universal digital accessibility that makes it easier for people to see, hear, and use computers. It has partnered with various governments and non-profits to strengthen communities worldwide by developing the workforce and helping to build local software economies. In his book, *The Road Ahead*, Bill Gates also says "Improving education is the best investment we can make because downstream benefits flow to every part of society."

UNESCO

We consider UNESCO as our preference, because it is United Nation’s organization which specialized in education sector. The aim of UNESCO is to improve education around the world, through technical advice, standard setting, innovative projects, capacity-building and networking. Currently UNESCO has education vision, which called Education for All by 2015. As it is stated in their objective “UNESCO leads the global Education for All movement, aiming to meet the learning needs of all children, youth and adults by 2015”.

The World Bank Institute

We chose The World Institute because it is the capacity development arm of the World Bank, and helps countries share and apply global and local knowledge to meet development challenges. The education program of WBI focuses on promoting learning access of education. The program is to improve the quality, efficiency, equity and sustainability of education reforms.

The World Bank Institute uses interactive technologies as well as blended applications of new and traditional educational methods to take knowledge around the world.
Lack of access to education in the developing world - innovation

**Agastya International Foundation**

Agastya International Foundation is committed to the cause of revitalizing and transforming primary and secondary education in India. One of the foundation’s central goals is to create an education dissemination model, which is cost-effective, scalable and replicable within and outside India. They also promote several innovations, integration between teaching and learning and create socially-committed leaders through their education program. Agastya’s Teacher Education Center provides innovative, state-of-the-art knowledge and skills to around 2,500 teachers every year. The Ecology and Cultural Center works towards reviving the ecosystem, and promoting knowledge of Indian culture and philosophy. By implementing their education program, they are hoping to achieve:

- Increased productivity through greater access to information technology
- Upgradation of local skills and
- Accelerated development of knowledge employment.

**The Kartika Soekarno Foundation**

We consider The Kartika Soekarno Foundation as our preference because, it is non government organization in developing country, which emphasize on education. They introduced its innovative teaching/learning method named School Based Management (SBM). It is aimed to provide adequate education system, reduce drop rate students and improve teachers working condition.

**Infosys Foundation**

We chose Infosys because it is a firm which has successfully implementation projects, especially learning and education. They try to improve and help access to education in rural areas. They also worked together with other NGO’s and partners to provide scholarship to poor students.

Next, diverse initiatives are stated of the selected business firms.
For IBM, the definition of innovation is the process, and success is the result. As it is stated in IBM website, “At IBM, we believe innovation means more than just inventing innovative products and solutions, although we’ll continue our legacy of changing the course of information technology by exploring and inventing new technologies. In over 170 countries we’re also creating an environment where our employees can bring innovation to bear on every aspect of their jobs. We’re also working with our clients to help them create new business processes and models to help them differentiate themselves from the competition. And we’re setting our sights beyond the borders of our company, industry -- even those of our clients -- by exploring new ways of working with an 'ecosystem of innovators' to solve societal challenges”.

IBM utilizes its strong central commitment towards education in order to develop a sustainable environment and community. Its top social priority is to improve public schools around the world. With its many programs, IBM aims to reform school systems around the world by solving education’s toughest problems with solutions that draw on advanced information technologies and the best minds IBM can apply.

**Reinventing Education**

By implementing this program, IBM is able to cooperate with several schools throughout the world. IBM not only donates money, but they also dedicate their world-renowned researchers, educational consultants and technology.

The program includes an interactive Web-based Change Toolkit, based on the work of Harvard Business School Professor Rosabeth Moss Kanter. This toolkit is accessible to all educators and aims to help school leaders expand and sustain their education reform efforts.

“Through Reinventing Education, IBM has formed partnerships with school districts and states in the U.S. and in countries throughout the world to develop technology solutions designed to help support school reform efforts and raise student achievement”.

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Lack of access to education in the developing world - innovation

**Transition to Teaching**

IBM transforms its most intellectual employees into fully accredited teachers in their local communities upon leaving the company to address the critical shortage of math and science.

**IBM Kidsmart Early Learning Program**

The IBM KidSmart Early Learning Program integrates new interactive teaching and learning activities using the latest technology into the pre-kindergarten curricula. The program also includes a web site for parents and teachers, which provides guidance on early learning and technology.

**Try Science**

IBM, the New York Hall of Science and the Association of Science-Technology Centers have developed TryScience, the first online, worldwide science and technology center, featuring interactive exhibits, multimedia adventures, live "field trips," and hands-on science projects.

**Try Engineering**

IBM is the technology partner of TryEngineering, a new web site that combines interactive activities with valuable information on careers in engineering.

**IBM Mentor Place**

IBM MentorPlace is a key component of IBM’s overall commitment to public education and raising student achievement. Through this volunteer program, thousands of IBM employees around the globe are providing students academic assistance and career counseling.

**XJTU-IBM Linux Network Computer Joint Research Center**
The XJTU-IBM Linux Network Computer Joint Research Center will research and develop a low-cost national networked classroom teaching system to support education reform in the rural and remote regions of China.

For IBM, innovation is about making the best possible way for schools, colleges or universities. They aim to enhance students and the learning environment with innovative thinking and best solutions. Currently, IBM is helping educational institutions innovate and in three broad areas to positively impact the learning environment:

- Enabling individuals and groups to easily connect; rely on learning and collaboration tools, methods and technologies that are based on open standards.
- Improving administrative efficiency and accountability—adapt the techniques of business to accommodate the new demands of education.
- Innovative research—look to collaborative technologies that allow researchers to venture beyond their current computing resources to break the boundaries of what is known.

Based on IBM’s program, their model is scalable, because they have various innovative programs in countries throughout the world. Their program is not replicable, because it requires huge amount of money. IBM’s programs can be considered as collaboration, because they worked together with various organizations.

**Microsoft**

“*Technology is an extremely powerful tool, a grand enabler of human imagination, innovation, creativity, and productivity. Creating innovation with real impact, listening carefully to what our customers want, and creating amazing products that are going to benefit as many other people on the planet as possible — that’s really the reason Microsoft exists. Innovation is the lifeblood of our business.*”

— Steve Balmer, CEO Microsoft
Microsoft places great emphasis on innovation as evident from the statement of Steve Balmer who considers it an integral part of their business. However, it is even more interesting to note that Microsoft has invested significantly in supporting universal digital accessibility that makes it easier for people to see, hear, and use computers. It has partnered with various governments and non-profits to strengthen communities worldwide by developing the workforce and helping to build local software economies. It has thus realized the importance of using corporate responsibility as a strategic tool especially in the cause of universalizing knowledge dissemination. In his book, *The Road Ahead*, Bill Gates also says "Improving education is the best investment we can make because downstream benefits flow to every part of society."

There are some innovative models that Microsoft has come up with in partnership with local communities to support this initiative.

**School of the Future**

Microsoft and the School District of Philadelphia have joined forces to create a 21st century learning environment that embodies innovation and technology. The goal of the partnership is to create a technology-based educational model that can be replicated in communities around the globe.

The vision behind this project was that of creating an empowered community where learning is continuous, relevant, and adaptive. To meet this vision, Microsoft laid down 5 key factors critical for the success of the program.

<table>
<thead>
<tr>
<th><strong>Success factor 1: An involved and connected learning community</strong></th>
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<tbody>
<tr>
<td>The School of the Future project should involve all stakeholders, including students, parents, community organizations, and businesses. The project must establish multiple means for communicating, sharing information, and soliciting input. Digital tools as well as electronic and print media should be used to eliminate barriers of language and economics. Finally, the entire</td>
</tr>
</tbody>
</table>
Learning community must provide opportunities that promote learning as a lifelong process.

**Success factor 2: A proficient and inviting curriculum-driven setting**

The school's physical setting must be conducive to the continuous and changing needs of the learning community. The technical infrastructure must support current and future mobile and fixed technical equipment and should enable the sharing of all data types. Classrooms, labs, and other learning spaces must provide the necessary elements that allow for instruction and learning. Furthermore, they must be adaptable to different teaching and learning activities.

**Success factor 3: A flexible and sustainable learning environment**

A truly effective learning environment is one that adapts to the ever-evolving needs of community members. Such an environment must focus on student-centered instructional models that encourage students to realize their full potential. The learning environment must limit the dependency on time and place for instructional opportunities to occur and must demonstrate instructional relevance for students. In addition, the environment should be independent of changes in faculty and administrative personnel.

**Success factor 4: A cross-curriculum integration of research and development**

To ensure a continuously evolving, integrated curriculum, the professional staff, led by the director of research and innovation, should incorporate the latest findings in research and development from business, technology, and educational institutions. In addition, the school should act as a learning laboratory where staff and students can design, carry out, and evaluate appropriate projects to enhance the teaching and learning process.

**Success factor 5: Professional leadership**

The leader of the School of the Future must embody a number of strengths and characteristics.
He or she must be able to: 1) affect instruction positively; 2) think strategically; 3) motivate and engage stakeholders; 4) engage technology at every appropriate opportunity; 5) design and present professional development programs to address identified needs; 6) interact and communicate with the community; 7) demonstrate fiscal responsibility; and 8) continuously evaluate and revise instructional programs in a collaborative manner. This individual must walk and talk the school’s vision, mission, and philosophy.

Microsoft is not donating equipment, software, or money to build these schools, because they believe that for building a sustainable school organization, infusing it with free resources is not an effective way. The project costs are being funded by each school’s own capital program. Microsoft’s contribution is in the form of human capital, project planning resources, facilitating sound organizational practices, and providing access to their international network of thought leaders.

The manner in which Microsoft has gone about building this school is also unique. They developed a new process called the “6i Development Process”. The various stages of this process are:

*Introspection* - Analyzing the organization’s strengths and weaknesses to plan effectively, mitigate threats and maximize opportunities

*Investigation* - Study and imbibe lessons from successful and proven methodologies and technologies

*Inclusion* - Involve all the stakeholders from the community

*Innovation* - Constantly try to improve and map new ideas to the ‘yardstick’ developed in stage 1

*Implementation* - Bring vision to reality by following a rigorous and professional schedule

*Introspection* - Reflect and debrief to check whether the targeted goals and success metrics have been met.

Overall this model is one where Microsoft is leveraging its strengths to help the worldwide community develop learning organizations that are attuned to the needs of the 21st century. It is
also being developed as a scalable and replicable model where technology is used to bridge cultural and geographic barriers.

**Infosys Foundation**

The Infosys Foundation started in 1996. The goal of The Infosys Foundation is to support the underprivileged in society and enrich their lives. It has successfully implemented projects in four key focus areas: Healthcare, Social rehabilitation and rural upliftment, Learning and education and Art and culture.

Among all, the most relative to our issue is the Learning and Education. Since realizing that education has become the biggest differentiating factor, the Foundation endeavor to enable the spread of education where it’s needed the most. Try to improve the access to education of the deprived and rural students through many activities.

The largest rural education programs in the country, the foundation has donated 10,200 sets of books in Karnataka alone, and in Andhra Pradesh, Karnataka, Orissa and Kerala, under its Library for Every Rural School project. Through this program, the Foundation has set up more than 10,150 libraries in rural government schools.

The model and the concept of The Infosys Foundation is to cooperate with other NGOs and partners to maximize the scale and efficiency. For instance, The Infosys Foundation works with Prerna, an NGO in Raichur and Bangalore, and Vidya Poshak in Dharwad, to distribute scholarships to poor students.

The Foundation has also installed office management software at the KEM Hospital in Mumbai. This enables the hospital to manage store requirements, keep accounts as well as publish hospital papers and other information on the Web.

The model of The Infosys Foundation is scalable (reach millions of children through donating many books and building many libraries in underdeveloped countries), replicable (high impact and low cost ideas) and collaborative (encouraging other NGOs and partners to work together).
Subsequently, two reputable NGOs in India and Indonesia are discussed.

**Agastya International Foundation**

Agastya International Foundation is a NGO based in India committed to the cause of revitalizing and transforming primary and secondary education in India. One of the foundation’s central goals is to create an education dissemination model, which is cost-effective, scalable and replicable within and outside India.

The goals and objectives of Agastya are:

- Propagate teacher education
- Foster creativity, teamwork and leadership skills in Children leverage cost-effective technologies to disseminate innovative, high-impact learning tools and methods.
- Support sustainable development through rural communities and ecological regeneration.

The educational model built by Agastya is as follows:

![Educational Model Diagram](source: www.agastya.org)
Lack of access to education in the developing world - innovation

The Creative Learning Center provides teacher training and hands-on educational opportunities in a creative and interactive setting to thousands of rural children. An interesting innovation has been the introduction of Mobile Labs. The mobile labs are vans containing a basic laboratory setup which travel from one village to the other and are capable of teaching children to perform around 50-100 scientific experiments. It is a very cost effective way of disseminating scientific knowledge as it totally eliminates the need for capital investment in each rural school (which might not be feasible). It also brings a very large number of students within reach of scientific equipment helping them to gain valuable skills.

The Agastya Gurukul is a concept of an international "Lab school" to foster innovation, integration between teaching and learning and create socially-committed leaders. This is strikingly similar to Microsoft’s “School of the Future” discussed earlier. Agastya’s Teacher Education Center provides innovative, state-of-the-art knowledge and skills to around 2,500 teachers every year. The Ecology and Cultural Center works towards reviving the ecosystem, and promoting knowledge of Indian culture and philosophy.

Some of the major benefits of this initiative are:

- Increased productivity through greater access to information technology
- Upgradation of local skills and
- Accelerated development of knowledge employment.

Agastya’s model is a good example of a model which is scalable (reach millions of children through science fairs/mobile labs), replicable (high impact and low cost ideas) and collaborative (encouraging government and private sector to work together with local community).

The Kartika Soekarno Foundation

The Kartika Soekarno Foundation for Indonesian Children (KSF) was established in Indonesia in the year 1998, in response to the Southeast Asian economic crisis. The foundation’s mission statement is to maximize the potential of every child in Indonesia. They support Indonesia’s
‘Next Generation of Leaders’ program, by developing and maintaining healthy bodies and minds. The Kartika Soekarno is working closely with UNICEF and Care-USA. They have two core programs, which focus on education and community-based health programs. The Kartika Soekarno Foundation is a low-cost organization, made up of highly skilled staffs while also possessing an economic administration cost.

Kartika Soekarno’s education program is also a form of School Base Management which conducts intensive training programs for teachers, parents, local government officials and the Ministry of Education. The main purpose of this program is to solve the insufficiency of the education system and reduce the drop out rate of students.

“It is a new paradigm of teaching/learning. It is hard to leave the classical method of teaching (children learning in rows and by rote), but with increasing teaching motivation and regular training, the quality of education will continue to improve”. Bapak Dewa Made Arsana, Head of SDN 4 Ubud Gianyar, Bali.

The SBM programs are:

**Exposure**: To ensure sustainability and a more widespread dissemination of the program exposes multiple layers of the community such as members of the Education Office, Local Parliament, education councils, School Heads, teachers and parents to the values of SBM.

**Accountability**: SBM encourages transparency and accountability among schools in order to increase parental and community involvement.

**Improved quality of teaching/learning**: Particular to Indonesia, the SBM program also includes an Active, Effective and Joyful Learning program (PAKEM) whereby teachers learn a two-way system of ‘child-friendly’ pedagogy. Children are encouraged to learn independently, ask questions and examine a wide range of learning tools such as their environment, their peers, and their homes.

**Resources**: Through the use of Block Grants, a small amount distributed to each school during the period of training, the schools are able to prioritise and address their own resource needs.

**Monitoring**: KSF’s national supervisors train local supervisors who will be expected to support SBM throughout the district. Supervisors carry out multiple On the Job training sessions at every school.
Lack of access to education in the developing world - innovation

Based on KSF’s program, their model is scalable. This is because they have innovative program that helped children in developing country (Indonesia). Their program is also replicable, because it has high impact while also maintaining minimum cost. They also consider collaborative because they worked together with several organizations, including UNICEF and Care-USA.

Next, various governmental organizations and their different educational projects are addressed.

**UNESCO**

UNESCO is the United Nation’s organization which specializes in education sector. It was created in the year 1945 and is headquartered in Paris. The aim of UNESCO is to improve education around the world, through technical advice, standard setting, innovative projects, capacity-building and networking. UNESCO’s educational vision called Education for All by 2015 states “UNESCO leads the global Education for All movement, aiming to meet the learning needs of all children, youth and adults by 2015”. UNESCO’s educational priorities:

- Basic education for all, with special attention being given to literacy, HIV/AIDS prevention education and teacher training in sub-Saharan Africa
- Secondary education, including technical and vocational education and training as well as science and technology education
- Promoting quality education, with special reference to values education and teacher training
- Higher education

UNESCO has launched initiatives to mobilize its efforts in three key areas: Teacher Training, Literacy and HIV/AIDS prevention education.

- **TTISSA: Teacher Training Initiative in Sub-Saharan Africa**
  UNESCO's Teacher Training Initiative is a 10-year project to improve dramatically teacher-training capacities in 46 sub-Saharan countries.

- **LIFE: The Literacy Initiative for Empowerment**
  UNESCO's 10-year initiative is designed to accelerate literacy efforts in countries that suffer
heavily from the lack of literacy. The initiative targets 35 countries that are home to 85% of the world's illiterate population.

**EDUCAIDS: The Global Initiative on Education and HIV/AIDS**

EDUCAIDS is a UNESCO-led worldwide initiative. It is carried out in partnership with 10 United Nation agencies to help governments and other key stakeholders put together a comprehensive response in the area of HIV/AIDS education.

Besides that, UNESCO also has program to achieve Education for All program, it is called EFA Global Action Plan. The Global Action Plan is a comprehensive strategy developed to improve international and country-level coordination for Education for All. It aims to clarify the roles of the five international agencies spearheading the global EFA movement (UNESCO, UNDP, UNFPA, UNICEF and the World Bank) and define their coordinated, joint action at the global level. Ultimately, it aims to achieve better and more targeted action on the ground, at the country level. Based in World Education Forum 2000 in Dakar, Senegal, there are six EFA goals to achieve Education for All missions by the year 2015. The goals are:

**Goal 1**
Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children.

**Goal 2**
Ensuring that by 2015 all children, particularly girls, children in difficult circumstances and those belonging to ethnic minorities, have access to, and complete, free and compulsory primary education of good quality.

**Goal 3**
Ensuring that the learning needs of all young people and adults are met through equitable access to appropriate learning and life-skills programmes.
Goal 4
Achieving a 50 per cent improvement in levels of adult literacy by 2015, especially for women, and equitable access to basic and continuing education for all adults.

Goal 5
Eliminating gender disparities in primary and secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls’ full and equal access to and achievement in basic education of good quality.

Goal 6
Improving all aspects of the quality of education and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills.

UNESCO model can be considered as scalable, because it has reached millions of children and adults around the world. It is however not easily replicable, because of the huge requirement of funds. Moreover, they are collaborative, because they worked together with other organizations from various components to achieve their target.

The World Bank

The World Bank Institute

The World Bank Institute is the capacity development arm of the World Bank, and helps countries share and apply global and local knowledge to meet development challenges. The education program of WBI focuses on promoting learning access of education. The program’s aim is to improve the quality, efficiency, equity and sustainability of education reforms.

The World Bank Institute uses interactive technologies as well as blended applications of new and traditional educational methods to take knowledge around the world.
Lack of access to education in the developing world - innovation

For many years, WBI and its partners have worked towards spreading learning activities through videoconference, the web, print publications, instructional video, CD-ROM, interactive multimedia and e-learning, as well as face-to-face in the classroom.

The model and the concept of WBI relies on cooperation with other NGOs and partners to maximize the scale and efficiency. For example, WBI has been working in cooperation with Global Development Learning Networks and Virtual Educa to overcome the technology gap in Education since 1996. They have committed to work together to scale up efforts.

“Through a true partnership effort, of which Virtual Educa is honored to be a part of, we will be able to develop innovative approaches for building local capacity combining the expertise in the areas of technology and distance education. We are pleased to be able to count on the World Bank’s Global Development Learning Network as a key partner for Virtual Educa,” stated José María Anton, Executive Director for Virtual Educa.

The model of The World Bank Institute is scalable (by innovative access of education to reach the children in underdeveloped countries), not so replicable (higher cost in technological set-up) and collaborative (encouraging other NGOs and partners to work together).

**Global Development Learning Network**

GDLN (Global Development Learning Network) was initiated in June 2000 under the leadership of the World Bank. It is located in developing countries, typically hosted by universities, think tanks and other local institutions that work on development policy and programs. Some affiliates were set up through World Bank loans or grants, notably in Africa, and a few are co-located with World Bank offices.

The Global Development Learning Network is a global learning community devoted to fighting poverty. Offering a combination of distance learning tools such as interactive videoconferencing and the internet, and expert facilitation and learning techniques, GDLN Affiliates enable individuals, teams, and organizations working in development around the world to communicate, share knowledge, and learn from each others’ experiences in a timely and cost-effective manner.
The model of The Global Development Learning Network is scalable. Through a network of well-equipped Distance Learning Centers located in learning institutions in over 60 countries, the GDLN provides learning and knowledge sharing opportunities for professionals in government, civil society and the private sector. However, the model is not so replicable (higher cost in technological set-up). The model of The Global Development Learning Network is collaborative. It was initiated under the leadership of the World Bank and it has encouraged other NGOs and partners to work together with.

3. Codes of conduct analysis

Based on the book of International Codes of Conduct, it can be defined as, “Codes of conduct encompasses guidelines, recommendations or rules issues by entities within a society (adopting body or actor) with the intent to affect the behavior of (international) business entities (target) within society in order to enhance corporate responsibility (Kolk and van Tulder, 2002). “There are two types of codes of conducts, as stated in the book; these are categorized as codes of conduct that are set up by societal entities and codes of conduct set by firms or business support groups”. In the society codes of conduct, non-profit actors may use codes of conduct to guide or restrict firm’s behavior; those trying to improve corporate social responsibility” (Kolk and van Tulder, 2002). Corporate social responsibility refers to the original idea that business are not isolated organizations working to meet a single societal function but are integrated with the whole of society and has dramatic effects on that society’s problems, structures and future (Wartick and Wood, 1998).

The other types of codes of conduct are those that are implemented by firms or business support groups., “such as industry and trade associations, chambers of commerce, think tanks and business leaders forums. The aim or the purpose of codes of conducts is to influence other actors that are involved with some of the relative fields. (Kolk and van Tulder, 2002).
Lack of access to education in the developing world - innovation

Codes of conduct offer a new option through private sector self-regulation using civil society vigilance. And like cereal boxes in the supermarket aisle, a daunting variety of worker rights codes of conduct have entered the public policy marketplace in just the past two years. If these can make the public aware of the importance of applying codes of conduct for accurate and ethical business processes, so can a company like Microsoft create some sort of codes of conduct to deal with the problem of access of education.

In our challenge, innovation of education, it’s hard to find firms or stakeholders that have set codes of conduct for the issue. We were unable to find one firm that has established codes of conduct concerning access of education. There are on the other hand plenty of firms that apply codes of conduct to employees’ education, work safety conditions, discrimination, but unfortunately our issue is not dealt with as yet.

However, we believe that the potential leader firm that could make such a code could be Microsoft. Since Microsoft deals with some topics such as universal education or technology in learning, it could also use innovation of education in one of their advertising campaigns and establish codes of conduct concerning innovation of education in the future. It can be seen through their ethical and philanthropic actions. As it is stated in Microsoft code of conduct, ’We are responsible, caring members of the global community’. Citizenship and Community Service: “We have a strong and demonstrated commitment to the improvement of society as well as the communities we serve and in which we operate. We encourage the support of charitable, civic, educational, and cultural causes. Our contributions include cash, volunteer time, software, and technical assistance”.

UNESCO has been created a set of Interim Analysis of Code of Conduct and Code of Ethics. The aim of the analysis is to know whether certain organization or countries already applied their code of conduct and ethics. The criteria are based on scope of the operation of the code (field of profession, field of activity, geographical coverage), date of issuance, structure of the code, content of the code (internal and external ethical principles or value), nature of the code (aspirational, educational, and regulatory), level of commitment (to the code and organization), enforcement of the code (sanctions and disciplinary body).
### 3.1 Implementing codes of conduct: Analytical framework and CSR approaches

The following table represents a model to analyze and compare codes of conduct of various organizations. Based on this model, the different organizations mentioned previously are supposed to be analyzed and categorized according to their CSR approach.

**Figure 3.1a: Analytical framework of codes of conduct of access to education issue**

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Short elaboration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Issues</strong></td>
<td></td>
</tr>
</tbody>
</table>
| 1.1 Social | (a) Does the organization provide innovative programmes aimed at education enhancement?  
(b) Does the organization provide institutional learning? |
| 1.2 Environment | (a) Is the organization involved in stakeholder relations aimed at education development?  
(b) Are there organizational programs in place focused at sustainable development? |
| 1.3 Generic | (a) Are organizations involving community in sustainable education?  
(b) Are organizations involved in third world development and/or philanthropy?  
(c) Do organizations consider education as fundamental human rights? |
| **Focus** | |
| 2.1 Organizations targeted | To whom is the code addressed? |
| 2.2 Geographic scope | What is the geographic scope? |
| 2.3 Nature | Are alternative measures included in the code (such as child labour)? |
| **Specificity** | |
| 3.1 Time horizon | What percentage of time is quantified? |
| 3.2 Reference | Is reference made to international standards (UN), either implicit or explicit, or to home-country or host-country laws? |
| **Compliance** | |
| 4.1 Monitoring systems and processes | How clear are the monitoring systems and processes? |
| 4.2 Position of monitoring actor | What is the positioning of the monitoring actor? |
| 4.3 Sanctions | Do sanctions exist? If yes, what kind of sanction do they have? |
| 4.4 Financial commitment | What is the level of financial commitment? |
| 4.5 Management commitment | Is the level of management explicit or implicit? |

Source: Adapted from a model to analyse and compare codes of conduct (Kolk and Van Tulder, 2002)
Lack of access to education in the developing world - innovation

**Figure 3.1b: CSR approach/codes of conduct strategy scheme**

<table>
<thead>
<tr>
<th></th>
<th>IN-ACTIVE</th>
<th>RE-ACTIVE</th>
<th>ACTIVE</th>
<th>PRO-ACTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>“Corporate Self Responsibility”</td>
<td>“Corporate Social Responsiveness”</td>
<td>“Corporate Social Responsibility”</td>
<td>“Corporate Societal Responsibility”</td>
<td></td>
</tr>
<tr>
<td>Legal compliance and utilitarian motives</td>
<td>Moral (negative) duty compliance</td>
<td>Choice for responsibility and integrity; virtue</td>
<td>Choice for interactive responsibility; discourse ethics</td>
<td></td>
</tr>
<tr>
<td>Inside-in</td>
<td>Outside-in</td>
<td>Inside-out</td>
<td>In-outside-in/out</td>
<td></td>
</tr>
<tr>
<td>‘doings things right’</td>
<td>“don’t do things wrong”</td>
<td>‘doing the right things’</td>
<td>‘doing the right things right’</td>
<td></td>
</tr>
<tr>
<td>‘doing well’</td>
<td>‘doing well and doing good’</td>
<td>‘doing good’</td>
<td>‘doing well by doing good’</td>
<td></td>
</tr>
</tbody>
</table>

**Codes of conduct strategy**

<table>
<thead>
<tr>
<th></th>
<th>Internal codes</th>
<th>Specific organization codes</th>
<th>General organization codes</th>
<th>Joint codification initiatives: dialogues</th>
</tr>
</thead>
<tbody>
<tr>
<td>Specificity: low</td>
<td></td>
<td>Specificity: med./high</td>
<td>Specificity: med./low</td>
<td>Specificity: high</td>
</tr>
<tr>
<td>Compliance: low</td>
<td></td>
<td>Compliance: med./low</td>
<td>Compliance: med./high</td>
<td>Compliance: high</td>
</tr>
<tr>
<td>Implementation likelihood: low</td>
<td></td>
<td>Implementation likelihood: med./low</td>
<td>Implementation likelihood: high</td>
<td></td>
</tr>
</tbody>
</table>

**Education approach:**

- No explicit statements on education
- We provide training and education to our employees (as by product of profit maximization)
- Payment of taxes
- Affordable products??
- No code of

- Contribution to human capital development
- Narrow BOP: mention of social changes in developing countries
- Creation of community learning used defensively
- Education program as part of philanthropy
- Transfer of

- Explicit statement on moral unacceptability of lack of access to education
- Definition of education
- Broad BOP: explicit view on how this strategy addresses education enhancement (net effect)
- Creation of local employment

- Strategic statement on education
- Explicit support for all MDGs
- Active partnerships with NGOs and international organizations on education
- Very explicit code and support of
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<table>
<thead>
<tr>
<th>Conduct and/or low compliance likelihood</th>
</tr>
</thead>
<tbody>
<tr>
<td>• No support for public relation tools (labels, etc.)</td>
</tr>
<tr>
<td>• Vague code and low specificity as regards education</td>
</tr>
<tr>
<td>• Support for Global compact and modest support for GRI</td>
</tr>
<tr>
<td>• Dialogue vaguely mentioned</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Technology and knowledge mentioned, but not specified</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Innovative education models as part of business strategy</td>
</tr>
<tr>
<td>• Transfer of technology and knowledge is specified</td>
</tr>
<tr>
<td>• Explicit support for MDG2</td>
</tr>
<tr>
<td>• Wholehearted support for GRI</td>
</tr>
<tr>
<td>• Philanthropy is aimed at limited access to education in general</td>
</tr>
<tr>
<td>• Specific code and/or labeling on education and/or distance learning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Opportunities at local community learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Transfer of technology and knowledge is specified</td>
</tr>
<tr>
<td>• Explicit support for MDG2</td>
</tr>
<tr>
<td>• Wholehearted support for GRI</td>
</tr>
<tr>
<td>• Philanthropy is aimed at limited access to education in general</td>
</tr>
<tr>
<td>• Specific code and/or labeling on education and/or distance learning</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highest possible transparency (GRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Transfer of technology and knowledge is specified and discussed for its impact on education enhancement</td>
</tr>
<tr>
<td>• Codes and labeling activities part of a contract with third parties (high specificity and high compliance likelihood)</td>
</tr>
<tr>
<td>• Dialogues as an explicit tool to raise strategic effectiveness</td>
</tr>
</tbody>
</table>

```
| "What is required" | "What is desired" |
```

Source: Adapted from Van Tulder et al., (unknown); Van Tulder and Kolk (2007)

The above table shows an overview of the different CSR approaches, including explanations, with the corresponding codes of conduct strategies and educational approaches. Our initial aim was to analyze the selected organizations based on this particular framework. Unfortunately, due to limited data found on codes of conduct it was not possible to give substantiated CSR classifications of the different organizations. The results of the analytical framework of the codes of conduct with accompanying explanations can be found in the appendix. However, based on our observations it has been concluded that firms like IBM and Microsoft have moved beyond the inactive and reactive CSR strategies.
4. Solutions, possible problems and monitoring procedures

We proposed several solutions in order to reduce or improve lack of access to education. One of our suggestions is to keep maintaining and improving current education programs which are conducted by firms, government and NGO’s. They should keep their innovation strategy regarding education programs.

Another solution is for the government in developing countries to provide more subsidies for education sector, in this case the education infrastructure. Probably it is not always easy to allocate their funds easily, but they should consider the importance of education. Therefore, providing some funds and resources for education infrastructure is crucial for them to put in their agenda.

Moreover, firms should conduct corporate social events to collect some funds for education infrastructure. This is because big firms have established and reputable name to attract people’s donation. They also can create advertisement to attract people’s attention towards this problem. NGO’s should also contribute by doing charity events.

Ensuring that all children receive the education they deserve will require a coordinated, global effort of individuals, communities, businesses and governments. However, using technology innovation is only one of the methods to improve the access to education. There still some other different aspects of solutions to the lack of access to education.

Here are some innovation solutions to education:

- Building the public support consent to make improvement in education fields by launching some awareness activities. Developing countries must work to build more schools, hire more
teachers, encourage parents and communities to invest in education and create girl-friendly schools that are safe and without bias.

- Giving the education institutions more sufficient funds to improve the resource of learning. Boosting and sustaining funding for basic research and primary education.
- Motivating students to study and teachers to enter careers in education through incentives such as scholarships, internship opportunities and grants. For example, design innovative curricula which focus on engaging students in dynamic activities and lessons that bring relevance to their future educational, personal, professional pursuits and equip students with the tools they will need to address global issues.

Government in developing nations should make universal primary education as one of their top priority. They should consider education as powerful tool to reduce poverty problem. By doing this they should affirm that primary education is compulsory, and if necessary free for all children. Government should also increase their domestic funding for education and improve the quality as well. This can be done by training and managing sufficient teachers and improving their working conditions. Governments should provide subsidies for families to send their children to school, for example providing textbooks, uniforms, stationeries, school bus and free meals. Moreover government should promote education content relevant to local culture and economic context, so that the parents accept education as an instrument to improve their quality of life. Educational institutions should also be made secure and safe with security cameras, separate toilets and special treatment for disabled, refugees, displaced children and other children with particular needs.

**Possible problems related to implementation**

Some possible problems related to the implementation are likely to be:

- Equipment or Internet reliability: If the technological equipment breakdowns, Internet service interruptions, electricity failures, and other technical difficulties that may affect the ability to deliver the course.
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- Difficulties in integrating a smooth process of particular codes of conduct into the supply chain and staff system.
- Limiting government expenditure on education may hinder the project of improving the access of education. There is still not a transparent and accountable allocation of funds distributed through any funding channel was recommended.

**Monitoring procedures**

After a strategic model has been implemented, it is equally important that there are enough mechanisms at work which monitor whether specific goals and targets with the aim of providing more open and equal access to education are in place. Some monitoring procedures methods can be undertaken to evaluate the project quality.

The educational model so designed needs to be:

- **scalable** because of the huge numbers involved,
- **sustainable** so that they are not dependant on charity and
- **replicable** which enables it to be transferred across countries and cultures

There are various ways in monitoring the implementation process of a particular innovative model in the education system. The following provides ways of how to monitor the progress.

- Learner and instructor satisfaction needs to be assessed. Internet supported courses or other technology access to education would be new to students and instructors. The school faculties can use questionnaires, focus groups, and interviews to gather data on their reactions, experiences and suggestions for improvement.
- A criterion ensuring a transparent and accountable allocation of funds distributed through any funding channel is also recommended. Civil society together with local as well as international governments should be involved in monitoring and evaluating the use and impact of these funds.
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**Parameter ratings**

The below tables illustrate the above mentioned organizations’ ratings on their education model based on the three essential criteria; scalability, sustainability and replicability.

**Table 4a: Scalability rating of selected organizations**

<table>
<thead>
<tr>
<th>Organization model</th>
<th>Scalability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Infosys Foundation</td>
<td></td>
</tr>
<tr>
<td>World Bank Institute</td>
<td></td>
</tr>
<tr>
<td>Global Development Learning Network</td>
<td></td>
</tr>
<tr>
<td>Microsoft School of the Future</td>
<td></td>
</tr>
<tr>
<td>Agastya Mobile Labs</td>
<td></td>
</tr>
<tr>
<td>The Kartika Soekarno SBM Program</td>
<td></td>
</tr>
<tr>
<td>IBM</td>
<td></td>
</tr>
<tr>
<td>UNESCO EFA Program</td>
<td></td>
</tr>
</tbody>
</table>
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**Table 4b:** Sustainability rating of selected organizations

<table>
<thead>
<tr>
<th>Organization Model</th>
<th>Sustainability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Infosys Foundation</td>
<td></td>
</tr>
<tr>
<td>World Bank Institute</td>
<td></td>
</tr>
<tr>
<td>Global Development Learning Network</td>
<td></td>
</tr>
<tr>
<td>Microsoft School of Future</td>
<td></td>
</tr>
<tr>
<td>Agastya Mobile Labs</td>
<td></td>
</tr>
<tr>
<td>The Kartika Soekarno SMB Program</td>
<td></td>
</tr>
<tr>
<td>IBM</td>
<td></td>
</tr>
<tr>
<td>UNESCO EFA Program</td>
<td></td>
</tr>
</tbody>
</table>

**Table 4c:** Replicability rating of selected organizations

<table>
<thead>
<tr>
<th>Organization model</th>
<th>Replicability</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Low</td>
</tr>
<tr>
<td>Infosys Foundation</td>
<td></td>
</tr>
<tr>
<td>World Bank Institute</td>
<td>✓</td>
</tr>
<tr>
<td>Global Development Learning Network</td>
<td>✓</td>
</tr>
<tr>
<td>Microsoft School of Future</td>
<td>✓</td>
</tr>
<tr>
<td>Agastya Mobile Labs</td>
<td>✓</td>
</tr>
<tr>
<td>The Kartika Soekarno SMB Program</td>
<td></td>
</tr>
<tr>
<td>IBM</td>
<td>✓</td>
</tr>
<tr>
<td>UNESCO EFA Program</td>
<td>✓</td>
</tr>
</tbody>
</table>
5. **Recommendations and Conclusion**

5.1 **Recommendations**

- The nation’s vision and plan for education must be established. A framework needs to be defined so that decisions made would be based on long-term and no political interference. The process should be consulted along with the civil society so that decisions can be understood and perceived by the end users. Furthermore, with the presence of a framework responsibilities towards the communities and governments are mobilized where in return priorities are specified. Education should be seen as the answer to undeveloped countries. Mass campaign should become a rational way to promote its benefits.

- As poverty continues to exclude many children and adults from education, especially in rural and remote areas, focus should be attended to the learning needs rather than the infrastructure of the formal school system. By doing so, the diversity of the learning needs can be recognized and will be offered with solutions.

- Assistance from appropriate direct programs is encouraged in order to control the human and financial resources to the education since national and internal NGOs will most likely direct their focus of funding on other activities for instance other infrastructure priorities.

Upgrading the skills of teachers cannot wait until the project is complete. One of the main reasons in implementing distance learning is to improve the quality of education. This is an urgent priority and training opportunities must be provided along with the training assistance with handling language transitions.
5.2 Conclusion

Proper education is a primary need for people throughout the world. It is the tool to reduce unemployment, poverty as well as to extend the advancement of countries. In our time of age, numerous innovations are emerging on how to secure a better, proper living. Education as one of these subjects is continuously being refurbished in order to implement high quality teaching. However not everyone can enjoy the benefit of their latest upgrades. For struggling countries, access to education is already proved difficult, let alone the opportunity to experience good quality education.

Our analysis of different existing models based on their scalability, replicability and sustainability shows that the models developed by firms/NGOs from developing countries rank high on all 3 parameters. The ones from the developed world are more technologically advanced but are usually not scalable/replicable because of the huge investment required in developing the infrastructure. For countries where this infrastructure is already in place it is a good option. However, the problem of lack of access to education is most acute in developing countries of Asia and Africa. The solutions thus need to be customized to local conditions which the firms/NGOs in developing countries have been more successful in doing. They have developed low cost and high impact solutions which can be easily scaled up and replicated across countries and cultures.

Looking at the various firms which are active in trying to solve this problem, it is clear that the firms which have gone beyond inactive and reactive CSR strategies are information technology firms like IBM and Microsoft. Most of the other corporations are still in the inactive/reactive stage where they provide education for employees and their families. The information technology firms on the other hand are the ones facing the most serious problem of talent shortage. Their approach to CSR is a combination of reactive and visionary where they are investing in building a talent pool of people who are educated and can use technology efficiently. That is why their programs are usually heavily based on technology and are also targeted at a smaller group of people rather than reaching out to each and every uneducated child. Firms also need to realize the immense benefits that education can bring in terms of poverty alleviation,
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higher life expectancies and higher standard of living. This indirectly has important consequences for increasing consumerism and higher purchasing power. Reaching out to educated customers is also easier and more effective than trying to reach uneducated customers. The transition of education from a private (in some parts of the world) to a public good is thus an important step towards the universalization of education.

Ensuring people their right to education is a very complex task. Government as well as national and international NGO's must fully commit in transforming their plans into realizations by contributing their financial and human resources. Furthermore through active stakeholder dialogues amongst different stakeholders throughout the world proper communication flow and involvement can be stimulated enabling innovative ideas to be created. Education stakeholders must participate to settle on which claims to be dealt with and deciding on the time frames to set the development into realization.

**Letter of recommendation**

One of the limitations for this report is lack of information regarding firms adding to the problem, there are no specific examples regarding this issue. Since our topic in lack of access to education is not directly related to a firm’s core business, such as pollution caused by corporations and child labour, there are no clear and specific codes of conducts to be found for the various organizations. However we found some general mission statements and a range of activities in which the organizations are involved, regarding corporate social responsibility. As limited codes of conduct related to education, were found we couldn’t make an elaborate and complete analysis and comparison of these codes for the different organizations selected. Therefore, the classification of the CSR approaches couldn’t entirely be substantiated by the codes of conduct/CSR strategies scheme. Furthermore, we were also experiencing difficulty in gathering data regarding education infrastructure in developing countries. For this reason we couldn’t go into more depth regarding infrastructural barriers of the educational system.

A major strength of this paper is that elaborate and relevant information is provided on the issue of lack of access to education. A wide range of reliable resources are used to extract valuable
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data. If researchers, interested in this particular topic, wish to further probe into this issue they could use our paper as a stepping stone. Furthermore we provide a comprehensive list of diverse innovative solutions to the lack of access to education in the developing world. This can help researchers, governments, businesses and communities to gain more insight and see where to improve existing propositions.
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Appendix 1

Table A: Results of framework to analyze and compare codes of conduct (based on selected organizations)

<table>
<thead>
<tr>
<th>Criteria</th>
<th>IBM</th>
<th>Microsoft</th>
<th>UNESCO</th>
<th>Worldbank</th>
<th>Agastya</th>
<th>Kartika</th>
<th>Infosys</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1 Social</td>
<td>(a) Yes (b) Not identified</td>
<td>(a) Yes (b) Yes</td>
<td>(a) Yes (b) Yes?</td>
<td>(a) Yes (b) Yes?</td>
<td>(a) Yes (b) Yes</td>
<td>(a) Yes (b) No</td>
<td>(a) Not identified (b) Not identified</td>
</tr>
<tr>
<td>1.2 Environment</td>
<td>(a) Yes (b) Yes</td>
<td>(a) Yes (b) Yes</td>
<td>(a) Yes (b) Yes?</td>
<td>(a) Yes (b) Yes</td>
<td>(a) Yes (b) Yes</td>
<td>(a) Yes (b) Yes</td>
<td>(a) Not identified (b) Yes</td>
</tr>
<tr>
<td>1.3 Generic</td>
<td>(a) Yes (b) Yes (c) Not identified</td>
<td>(a) Yes (b) Yes (c) Not identified</td>
<td>(a) Yes (b) Yes (c) Yes</td>
<td>(a) Yes (b) Yes (c) Yes</td>
<td>(a) Yes (b) Yes (c) Not identified</td>
<td>(a) Yes (b) Yes (c) Yes</td>
<td>(a) Not identified (b) Not identified (c) Not identified</td>
</tr>
<tr>
<td>2.1 Organizations targeted</td>
<td>Not identified</td>
<td>Internal operations of specific firms (Microsoft)</td>
<td>Not identified</td>
<td>Business partners</td>
<td>Business relations?</td>
<td>Not identified</td>
<td>Not identified</td>
</tr>
<tr>
<td>2.2 Geographic scope</td>
<td>Not identified</td>
<td>Global</td>
<td>Not identified</td>
<td>Global (general)</td>
<td>Global (general)?</td>
<td>Specific country (strong)</td>
<td>Specific country (strong)</td>
</tr>
<tr>
<td>2.3 Nature</td>
<td>Not identified</td>
<td>Yes</td>
<td>Not identified</td>
<td>Yes</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
</tr>
<tr>
<td>3.1 Time horizon</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
</tr>
<tr>
<td>3.2 Reference</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
<td>International standards?</td>
<td>International standards?</td>
<td>Not identified</td>
<td>Not identified</td>
</tr>
<tr>
<td>4.1 Monitoring systems and processes</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Clear?</td>
<td>Not identified?</td>
<td>Not identified</td>
<td>Not identified</td>
</tr>
<tr>
<td>4.2 Position of monitoring</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified?</td>
<td>Not identified</td>
<td>Not identified</td>
</tr>
</tbody>
</table>
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The following provides brief explanations of the above table analysis for each individual organization.

**WBI**

1.1 Social

(a) Use of interactive technologies and blended applications of new and traditional educational methods to deliver knowledge globally.

(b) Diverse learning programs and each program designs and offers courses, seminars, and so forth.

1.2 Environment

(a) Model and concept encourages cooperation with other NGOs and partners to increase scale and efficiency (Global Development Learning Networks and Virtual Educa).

(b) Involved in reaching out to the poor.

1.3 Generic

(a) WBI’s Community Empowerment & Social Inclusion (CESI) learning program aims at helping poor by means of empowerment and governance, also involves and influences public policies and institutions.

(b) Helps countries share and use global and local knowledge to tackle development challenges and works to help produce better conditions that facilitate poor to create own development.

<table>
<thead>
<tr>
<th>actor</th>
<th>Sanctions</th>
<th>Financial commitment</th>
<th>Management commitment</th>
</tr>
</thead>
<tbody>
<tr>
<td>4.3</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Not identified</td>
</tr>
<tr>
<td>4.4</td>
<td>Not identified</td>
<td>Not identified</td>
<td>High-Very high</td>
</tr>
<tr>
<td>4.5</td>
<td>Not identified</td>
<td>Not identified</td>
<td>Explicit?</td>
</tr>
</tbody>
</table>

Source: Adapted from Kolk and van Tulder (2002)
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(c) It is assumed to be the case, so implicit, given their strong involvement in this particular sector.

2.1 Organizations targeted: It is assumed that this relates primarily to business partners, given their collaboration with other organizations such as GDLN and Virtual Educa.

2.2 Geographic scope: Given global involvement; WBI Country Programs by region → Africa; East Asia & Pacific; Europe & Central Asia (CIS / Non-CIS); Latin America & Caribbean; Middle East & North Africa; South Asia.

2.3 Nature: It is assumed that this is implicit given related issue of education and strong involvement of Worldbank in child labour.

3.2 Reference: This is assumed, thus implicit, given their international stance.

4.1 Monitoring systems and processes: It is assumed, thus implicit, given the active involvement and high credibility.

4.4 Financial commitment: It is assumed that this is between high and very high, thus implicit, given level of involvement and resources of Worldbank.

4.5 Management commitment: It is believed this is explicit, given clear statements on missions such as: The WBI is the capacity development arm of the World Bank, and helps countries share and apply global and local knowledge to meet development challenges. The education program of WBI focuses on promoting learning access of education. The program is to improve the quality, efficiency, equity and sustainability of education reforms.

GDLN

1.1 Social

(a) Fight poverty through educational development by means of a combination of distance learning tools and expert facilitation and learning techniques. (b) This is assumed as they are a global partnership of learning centers.

1.2 Environment
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(a) Collaboration with partners such as WBI, universities, think tanks and other local institutions that focus on development policy and programs.
(b) Mainly devoted to combating poverty, which is part of sustainable development.

1.3 Generic
(a) They are collaborating with universities, think tanks and other local institutions.
(b) Given their involvement in eradicating poverty in developing nations.
(c) This is assumed given their level of involvement in education.

2.1 Organizations targeted: This is assumed, given the involving of other organizations as business partners such as universities and WBI.

2.2 Geographic scope: GDLN is conducts business in different locations throughout the world; Africa, East Asia and Pacific; Central and South Asia, Europe, Latin America & Caribbean, North America.

3.2 Reference: Given their international stance.

4.4 Financial commitment: Given level of involvement and Worldbank loans and grants

4.5 Management commitment: Given clear mission statements

**Agastya International Foundation**

1.1 Social
(a) Agastya provide innovative programs aimed at education enhancement. This can be proved through their education model, which is emphasis on innovation and creativity. For example, their international "Lab school" to foster innovation, integration between teaching and learning and create socially-committed leaders.
(b) Agastya provide Creative Learning Center, Teacher Education Center, Ecology and Cultural Center and Agastya Gurukul.
1.2 Environment

(a) Agastya stakeholders such as central, state and local governments, rural schools and institutes, urban schools (government and corporation), urban colleges, corporations, philanthropic institutions/individuals, scientists from Indian Institute of Science, Homi Bhabha Centre of Science Education, Indira Gandhi National Center for the Arts.

(b) The organization programs focused at sustainable development. As it is stated in Agastya Vision 2012, “Sustainable development is possible when societies extract less from the socio-economic system than they invest in it. Attaining this goal in today’s materialistic and globalizing world requires shifts in attitude and vision. Moving away from the one-dimensional materialistic education model of the present day to a holistic model, which engenders inner and outer harmony, can accelerate the shift. Agastya’s contribution is reflected in the transformation it is helping to engineer in the nature and quality of education offered to rural Indians - India’s largest population group”.

1.3 Generic

(a) Agastya involving large, broad students and teachers’ population as well as rural and urban communities.

(b) Agatsya originally from third world country, which is India. They aim is revitalizing education in India.

2.2 Geographic scope: Currently geographic scope of Agastya is in India. With over 16 % of the world’s population, revitalizing education in India must be a national as well as global priority.

UNESCO

1.1 Social

(a) UNESCO provides several innovative programs.

(b) UNESCO provides institutional learning.

1.2 Environment

(b) Organization programs in focused at sustainable development. As it is stated in the goal of the
United Nations Decade of Education for Sustainable Development (2005-2014, DESD), for which UNESCO is the lead agency, is to integrate the principles, values, and practices of sustainable development into all aspects of education and learning. This educational effort will encourage changes in behavior that will create a more sustainable future in terms of environmental integrity, economic viability, and a just society for present and future generations.

1.3 Generic

(a) UNESCO involved community in sustainable education.
(b) UNESCO involved in third world development and/or philanthropy, for example in Africa, Arab States, Asia, Latin America and the Caribbean.
(c) UNESCO considered education as fundamental human rights. They mentioned education impacts on human development and economic growth, and it is a fundamental requirement for democracy. It is also highlighted in the article 26 of The Universal Declaration on Human Rights (1948) recognizes education along with other necessities such as food, shelter, and water as a fundamental human right. The UN Convention on the Rights of the Child, ratified by 192 countries in 1989, affirms the right of all children to free, relevant and quality education.

2.3 Nature: UNESCO considers child labor as part of their problem.

The Kartika Soekarno Foundation

1.1 Social

(a) School based management program.

(b) Kartika Soekarno only provide program to improve learning condition.

1.2 Environment

(a) Yes. Members of the Education Office, Local Parliament, education councils, School Heads, teachers and parents, ensure sustainability of the SBM program. Moreover Kartika Soekarno also worked closely with UNICEF and CARE-USA.
(b) KSF employs the School Based Management program to provide a holistic and sustainable reform to primary education.
1.3 Generic

(a) Kartika Soekarno technical assistance focuses on building local capacity to improve the quality and coverage of health and education services for the district community.
(b) Kartika Soekarno focuses on education development in Indonesia.
(c) Education as individual rights and valuable future.

IBM

1.1 Social

(a) For IBM, innovation is about making the best possible way for schools, colleges or universities.
(b) XJTU-IBM Linux Network Computer Joint Research Center. The XJTU-IBM Linux Network Computer Joint Research Center will research and develop a low-cost national networked classroom teaching system to support education reform in the rural and remote regions of China.

1.2 Environment

(a) Through Reinventing Education, IBM has formed partnerships with school districts and states in the U.S. and in countries throughout the world to develop technology solutions designed to help support school reform efforts and raise student achievement.

1.3 Generic

(a) IBM utilizes its strong central commitment towards education in order to develop a sustainable environment and community.
(b) With the help of IBM Learning Services, West Bengal has heightened the ability of its students to pursue careers in high-tech, positioning it to capture more of the global market for high-tech outsourcing services.

2.1. Organization targeted: The Code of Conduct applies to all parties activities in relation with IBM. As it is stated in IBM Code of Conduct, “This Code of Conduct (Code) applies to all your activities in your IBM business relationship with us. By establishing this Code and making it part of your relationship with IBM, we are acknowledging your critical role in defining and protecting our most valuable collective
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asset - the trust that our clients, investors, colleagues and communities place in IBM and our business associates”.

2.3 Nature: IBM Suppliers will not use child labor

Microsoft

1.1 Social
(a) For example Microsoft Innovative Teacher Program.
(b) Microsoft and the School District of Philadelphia have joined forces to create a 21st century learning environment that embodies innovation and technology.

1.2 Environment

(a) Microsoft has partnered with various governments and non-profits to strengthen communities worldwide by developing the workforce and helping to build local software economies.
(b) It is stated in the third of their 5 successful factors, a flexible and sustainable learning environment.

1.3 Generic

(a) The School of the Future project should involve all stakeholders, including students, parents, community organizations, and businesses.
(b) Microsoft also considers third world nations, such as Asia, Africa.

2.1. Organization targeted: All Microsoft employees have to read and understand Microsoft Standard of Business Conduct.

2.2. Geographic scope: Global. Microsoft established its worldwide education sites, such as in North America, Europe, Asia, Latin America, Australia/New Zealand, and Middle East/Africa.
2.3. **Nature:** Yes. UNICEF Venezuela, another Unlimited Potential (UP) grant recipient, has been working since 1991 to protect that country's children and their rights. Its UP grant will be used to support the Technology for Indigenous Children project, created to give young people the opportunity to develop skills and knowledge and help them avoid child labor, while enabling access to higher-level education. The project is expected to benefit 2,000 Venezuelan children and teenagers, and represents the first time that indigenous children and communities supported by UNICEF will have access to technology.

**Infosys**

Due to limited data found, no clear and definite analysis could be made.