

## **ONLINE EDUCATION IS A WAY TO IMPROVE QUALITY OF EDUCATION: PROS AND CONS**

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**Abstract:** Education is a pillar of civilization and sustainable development. Quality of education and its spread among people gives developing countries opportunity to develop much faster and solve lots of issues like poverty, industrialization, environment, health and so on. Online education can solve the problems of standardization of education and equally spread the knowledge. It gives an access to different sources of information and adjusts the speed of learning. Future of education is through online education.

**Keywords:** education pillar of civilization, online education, distance learning, equal access to knowledge.

**Аннотация:** Образование является основой цивилизации и устойчивого развития. Качество образование и его распространение среди людей даёт развивающимся странам возможность развиваться намного быстрее и решать множество проблем, таких как нищета, индустриализация, окружающая среда, здравоохранение и другие. Интернет-образование может решать проблемы стандартизации образования и равномерного доступа к знаниям. Он даёт доступ к различным источникам информации и контролировать скорость обучение. Онлайн-образование это будущее образованию.

**Ключевые слова:** образование один из столпов цивилизации, онлайн-образование, дистанционное обучение, доступность качественного образования.

**Annotatsiya:** Ta'lim – dunyo tsivilizatsiya ustuni va barqaror rivojlanish omilidir. Ta'lim sifati va uning targ'iboti rivojlanayotgan mamlakatlarga ildamroq rivojlanish hamda qashshoqlik, sanoatlashtirish, atrof-muhit, sog'liqni saqlash kabi ko'plab masalalarni tezroq hal etishda yordam beradi. On-layn ta'lim ta'limni standartlashtirish hamda uni keng va teng ravishda tarqatish imkonini bermoqda. Shuningdek, turli axborot manbalaridan foydalanish va ta'lim olish tezligini boshqarishni yaxshilamoqda. Onlayn ta'lim kelajak avlod ta'limidir.

**Kalit so'zlar:** ta'lim tsivilizatsiya ustuni, onlayn ta'lim, masofaviy ta'lim, sifatli bilim olishga teng imkoniyat.

### **Introduction**

Education is a pillar of civilization. Historically any powerful country or empire had strong education system, starting from ancient Egypt, Mesopotamian kingdoms, ancient China, Hellenistic Greece till now. First alphabets and hieroglyphics were invented in these countries and they used it on stone monuments, papyrus, oracle bones, and later manuscripts [1]. Invention of writing has a big impact on sharing the knowledge with others and passing it to next generation. Ancient people created wheel, weapons, tools, equipment for farming and hunting. But if they could not spread the knowledge people would still use stone weapons and tools. Furthermore, an integral part of civilization such as architecture, cultivation and farming, culture, religion, bureaucracy, economics and trade could not spread all over the world. Scientists used previous scientist's works to improve it and passed to next generation of scientists. For example, we have evidence that Greek, Egyptian and Mesopotamians' philosophers made base for most of nowadays science like physics, geometry, astronomy, zoology, logics and so on. Till fall of Roman

Empire European civilization and science was developing in similar level with Middle East and Asia. However, after Roman Empire collapsed in dark middle ages, Europe started to stay in behind from eastern countries. Because European lost lots of ancient Greek and Roman science after barbarian invaders, and catholic inquisition was hinder for further development of science. Meanwhile, in the Middle East, many classical Greek texts, especially the works of Aristotle, were translated into Syriac during the VI and VII centuries. The Islamic world then kept, translated, and developed many of these texts, especially in centers of learning such as Baghdad, where a "House of Wisdom" with thousands of manuscripts existed as early as 832. Therefore, most of innovations and invention were happened during Islamic renaissance period from VII century to XIV century. In most of big Islamic cities like Baghdad, Damascus, Cairo, Khwarazm there were the Islamic mosque school (Madrasah) and academy. While it is impossible to calculate literacy rates in pre-modern Islamic societies, it is almost certain that they were relatively high, at least in comparison to their European counterparts [2]. From XV century renaissance started in Europe, when Italian city countries started restore almost forgotten science. These texts and the many commentaries of the Islamic scholars upon these were in turn translated into Latin by scholars such as Michael Scot during the middle ages [3]. Invention of printing press in 1440 in Holy Roman Empire, dramatically increased spread of knowledge and introduced the era of mass communication, which permanently altered the structure of society. The relatively unrestricted circulation of information and revolutionary ideas transcended borders captured the masses in the Reformation and threatened the power of political and religious authorities. The sharp increase in literacy broke the monopoly of the literate elite on education and learning and bolstered the emerging middle class. European printing presses of around 1600 were capable of producing about 1,500 impressions per workday [4]. By comparison, book printing in East Asia, did not use presses and was solely done by block printing [5]. Starting from XVI century European countries became powerful not only in military and expansion, but also in education and science. In terms of innovations and development Europe lead comparing Asian counterparty. Europe was a leader in education and science till World Wars. After colonization of America people started to migrate to America looking for new opportunities and especially after world wars brain drain to America increased, that led to increase American science. In any step of development of humanity or civilization education and science were one of the main pillars. History proved that countries which spent huge attention and investment in education and science in the most case were powerful, rich, prosperous countries. In the coming future traditional way of education will be replaced by online education. Those countries that implement online and digital education have more chance to become leading country in the world.

### **Literature review**

There are plenty authors who contributed in developing education and science, starting from ancient philosophers and scientists till modern writers and philosophers. Here I want to focus more about most compelling and visionary reading on reinventing education from the past century.

Sir Ken Robinson is one of the great educators of modern era. In his book “The Element: How finding your passion changes everything” [6] – he tried to describe current educational models, that consistently limited and tried to fit into predetermined boxes,

extricating rather than encouraging young people's unique abilities and talents. In his another book “Out of our minds: learning to be creative” [7] Ken Robinson explained the advantages of creativity and encouragement of kids' self-study according to their interest.

Douglas Thomas and John Seely Brown explain education with equal amounts of understanding, creativity and optimism to deliver a refreshing vision for the relationship between education and technology, where the two progress synchronously and smoothly. A book which was written by these authors is named “A new culture of learning: cultivating the imagination for a world of constant change” [8].

Howard Gardner also wrote interesting book named “Five Minds for the Future” [9], where he highly anticipated follow-up published more than two decades later, the author presents a visionary and thought-provoking blueprint for mental abilities that will be most critical in the 21st century as we grapple with issues of information overload and creative entrepreneurship.

Last but not least author who made significant contribution is Isaac Asimov. In his book “The roving mind” [10] he tried to intended to encourage young people to pursue a career in science. He promotes the idea of freethinking across all disciplines in order to achieve successful results in education and creativity.

Education is something we're profoundly enthusiastic about, but the reality remains that the present predominant formal education model is a broken system based on outdated ideal paradigms

### **Research Methodology**

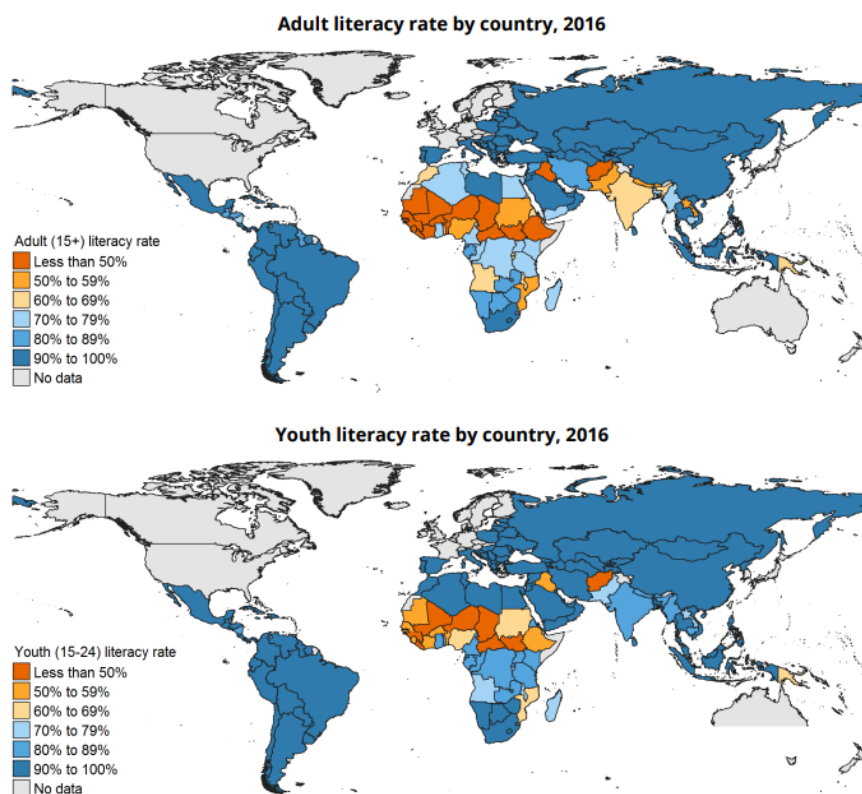
There have been studied and analyzed works of different philosophers and scientists who had contributed in development of education. Based on observation of modern trends and changes author tried to adopt education system to new requirements of 21<sup>st</sup> century. Author compared outdated education system with new education models that were introduced by modern philosophers and scientists. In this analysis author described pros and cons of both education models. Moreover, based on statistical data author tried to give rational behind of his recommendations.

### **Analysis and results**

#### **1. Education**

International Covenant on Economic, Social and Cultural Rights recognizes a universal right to education. Kindergarten, primary school, secondary school and then college, university are commonly recognized as stages of education all over the world. Education is mandatory up to a certain age in many countries. According to UNESCO Institute for Statistics the global literacy rate for all people aged 15 and above is 86.3%. This rate in developed countries is 99.2%, in contrast, sub-Saharan Africa is only 64.0% [11]. Moreover, women represent almost two-thirds of all illiterate adults globally [12]. According to this statistics literacy rate increased but unfortunately it doesn't mean that quality of education is also increased. Also equally accessibility to knowledge cross gender or cross countries is still existing issue. Prioritization of some disciplines from another (at the top of hierarchy language and mathematics then humanity and at the bottom arts), influence of political views into education (adding political disciplines and teaching in the interests and perspective of the government) and task oriented approach of teaching and other problems are still unsolved. We need to consider that human talent is extremely diverse and people have a various aptitudes. Ken Robinson made a good example, where

he said: “There are two models of quality assurance in catering, the standardized one which we know as a fast food and non-standardized one, where everything is customized” [13]. He claims that current education sticks to fast food model of education and it does not allow pupils flourish their full potential. Moreover, Ken Robinson argues that our current education system came into being to meet the needs of industrialism. This model which was made in XIX century is still used. Even though model was improved over the hundred years it is core ideas are still exist. The most useful subjects for work are at the top education hierarchy and academic ability dominates our view of intelligence [14].



**Figure 1. Where are literacy rates lowest and highest in the world? [15]**

However, in fact, academic smart people not always successful or creative after graduation or many highly-talented, creative people are been undervalued because of standardization of academic ability. Finally, he gives solution. He offers to switch from an industrial model of education, a manufacturing model, which is based on linearity and conformity and batching people to a model that is based more on principles of agriculture. He justifies his opinion on that human flourishing is not a mechanical process, it is an organic process. It is hard to predict the outcome of human development but like a farmer it is possible to create the favorable environmental condition under which they start to flourish. It sounds good and reasonable. Question is how to create such a favorable environmental condition for pupils and students.

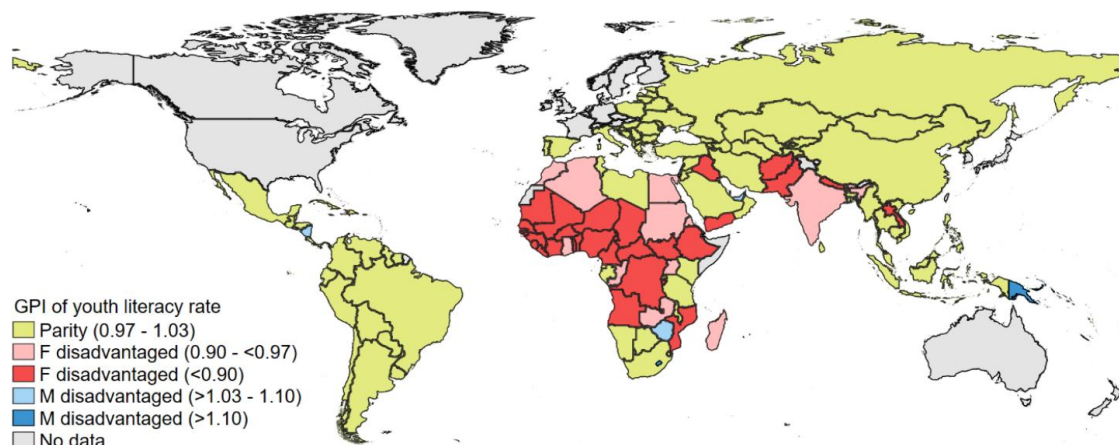
## **2. Online education**

We already explained that education is important for sustainable future development and also we described which kind of problems current education is faced with. And we think it is time to radically change our view to education and choose revolutionary way not evolutionary one. We have already spent more than 2 centuries to improve existing education model. One the way of changing is fully utilization of distance



education and online degree, giving them accreditation and legitimacy. First it is fully access to knowledge for everyone. Implementing it we can get rid of gender discrimination and social status discrimination. Girls, who cannot attend schools because of family or religion reasons, can get access through online education, or poor people don't need to think about high payment for education because they will get online education in affordable price or even free.

Gender parity index of youth literacy rate by country, 2016



**Figure 2. Which countries have achieved gender parity in youth literacy? [16]**

Online education becomes the most cost-effective form of learning. In contrast to traditional education students can tremendously reduce his/her expenses. By using online education students may significantly decrease time and money for transportation. Also, by utilizing electronic books students cut one more core expenses. In digital era, there are many books have already got software and also recently number of digital publishers and libraries have been increasing. Furthermore, unlike in traditional schools, there are different students from diverse geographical, cultural, economic, and experiential backgrounds. This gives opportunity for students to have cross-cultural experience, learn others life experience and try to understand the problems from different angles. Modern technologies allow making group discussion among students, communicate via email, chats, audio and video calls and exchange all kind of electronic materials. Another advantage is student can adjust his/her learning speed. People's learning ability is different, some people can learn faster while some people need more time. For those who are easy learners they can finish the courses quickly. Whereas, students who are not good at learning they can review their lessons more than once according to their need and focus on their weak points. Students can learn course more effectively by concentrating at their weak points and get higher satisfaction from self-studying. There is lots of information in internet sources. It is comfortable to use searching engines and filters to find that information which you are looking for. Verity of information helps to see different point of views. Because sometimes due to political or other national interests of country some materials and information are provided with censorship, cut or given fake information. Comparing with different sources reader can see whole picture not part of it. Hence it helps to improve analytical and logical skills to find the truth. Since it is flexible scheduling, people can study while they are working in their current jobs. Hence, not only young but

also aged people can use self-study for their job career opportunities. Cram schools, vocational schools, colleges, high degree universities all of them can use online education and can achieve economy of scale. Online schools will also try continuously to improve and be in line with current new trends by taking quick feedbacks from internet users. Finally, online education gives hope to people who are unable to attend a traditional school setting, due to disability or illness. They can also get equal education as a healthy people do. This is the way how we can achieve equal excess to knowledge. There are already some online courses, materials, and high schools that using online education system. But it is only few numbers and hasn't reached massive mainstream level. There is MOOC (massive open online course) and several commercial and non-profit internet sites that provide online education. Sites like Coursera, WizIQ, Canvas Network, Udacity, Udemy are commercial based, in contrast Khan Academy, edX, Peer to Peer University are non-profit organizations. In following statistics we can see its effectiveness. There are over 60 million people from around the world have enrolled in Massive Open Online Courses (MOOCs) offered by Coursera, EdX, and other platforms. Approximately 80% already had at least a bachelor's degree, nearly 60% were employed full-time, and 60% came from developed countries (defined as members of the OECD). One of the latest researches demonstrates that among learners who complete courses, MOOCs do have a real impact: 72% of survey respondents reported career benefits and 61% reported educational benefits [17]. Furthermore, our findings suggest that people from developing countries more frequently report benefits from taking MOOCs and, also in developing countries, people with lower socioeconomic status and with less education are more likely to report benefits. It appears that MOOCs are tangibly helping people who take the time and effort to complete courses [18]. This is one more cause why we need to increase the quantity and quality of these sites to spread and flourish online education. Price, delivery, languages, content, fairness, verity, these are key aspects which should be considered to improve quality of education.

### **3. Weakness of online education**

To be honest, it is not easy to switch from existing traditional education to online education. There are some issues and barriers to change it. However, it was never easy when people used revolutionary way to achieve their goals. First of all, in general there is no equal access to internet or technologies in every country or region. Poverty and lack of infrastructure in some regions and rural areas could be barriers for total implementing of online education system. But in other hand, there is paradox, because by improving education countries can solve poverty and infrastructure problems. In some cases, students don't have enough proper skills to use online education platform. Hence, the lack of advanced technology skills can lead to an unsuccessful experience [19]. In other cases, people don't have enough discipline and self-control for self-study. They need face to face teacher and control. But it is matter of culture. If from young age they build inside of them self-studying culture and behavior this issue can be easily solved. Lastly, organizations of that online courses or materials can be bias and provide information on interest of specific group of people or country. We can still see this kind of conflict of interests in many historical events where the same event is written in different ways in different countries historical books. Another threat is brainwashing, where negative political, religion, cultural propaganda can overcome positive way of thinking.

If we see existing online education sites they are also facing with some problems. Even existing open source sites like MOOCs are also not open in all its meaning. There are still language barrier for those who doesn't know English. Moreover, delivery way of teaching is different depending on countries, which also leads to some misunderstandings. For example, strict delivery vs friendly delivery, teacher-centric vs student-centric, explaining through cases vs explain just general theory and others.

### **Conclusion**

Literacy rate in Uzbekistan is high, but the quality of education doesn't fit modern requirement. In these circumstances what should we need to do to improve the quality of education and make it accessible? We need to keep in mind that people are different and make education more customized rather than standardized. Moreover, prioritization disciplines one above another kills creativity and diversity. Therefore, by implementing we can solve following issues:

1. Accessibility. Despite gender, social status, religion or believes people will have access to that online educational materials
2. Cost-effective. Online education significantly decreases time and money for transportation. Also, electronic books, audio and video materials help to reduce other core expenses.
3. Cross-cultural experience. People from all over the world can participate in online education and if it will be held in interactive regime, people can share and learn new cultures and way of thinking.
4. Control learning speed. Ability of students is different someone can learn faster some slower. Student can adjust his time and speed accordingly.
5. Verity. There are lots of educational sites and platforms where student can find that information which he/she is looking for. Moreover student can compare that information from different sources and get prove or understand that is fake one. Also will get familiar with different points of view.
6. Flexible. People with disability can use it despite their illness, or employees can improve his/her knowledge after his working hours. It is easy to implement for cram schools, vocational schools, colleges and etc.
7. Up to date. Information and data are refreshed frequently that helps to update statistical numbers, events, and new trends on time.

We can debate about efficiency of online education versus traditional education, it advantages and disadvantages. However, we all agree that education is only way to improve social-economic and cultural life of people. Through education we build equal, humanistic, and prosperous society. Therefore, improving the quality of education and be in line with nowadays technological trends is requirement of current time. We need to think broadly and stop thinking in traditional boundaries. As Nelson Mandela said education was the most powerful weapon which you could use to change the world. Let's change our world to better world through improving the quality of education and equal excess to education.

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