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Internet Is Changing How the World Is Educated

By Anka Mulder

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The World Economic Forum estimates that the global economy will need to create 600 million new jobs over the next decade to preserve social cohesion and ensure sustainable growth. In the midst of ongoing economic fragility across much of the world, this poses a monumental challenge and will thus be one of the topics discussed at the World Economic Forum's annual meeting in Davos later this month.

Education is key to delivering this agenda. Human advancement and development has always been driven by knowledge and our capacity to impart this to future generations. Consider these points:

In developed economies in Europe and North America, where millions of manufacturing and low-skilled jobs have been lost since 2008, recovery will be powered in large part by creation of highly skilled employment opportunities, many of them requiring degrees.

In high-growth economies, including China, India and Brazil, there are rapidly rising

numbers of higher education students. In India, for instance, the ambition is to increase the portion of the population with a university education from 12 percent to 30 percent in 2025.

In other developing markets, like Africa and the Middle East, human capital development is also crucial to the next generation of economic growth.

But as the global pool of education and knowledge continually expands and the demand for access to education increases, traditional means of sharing and disseminating information are under unprecedented strain. UNESCO estimates that by 2025, there will be at least 80 million more people seeking higher education than are currently.

Meeting this new demand through conventional means would require the construction of three universities a week accommodating 40,000 students for the next 12 years. That is an impossible task, especially given reduced government budgets in much of the world.

So how can this issue best be addressed? Much of the answer lies in realizing the full potential of digital technology and the Internet. They already provide access to vast resources of information, most of it free. But not all this data is reliable, and even credible information is only a stepping stone to real knowledge.

That is why a decade ago the Massachusetts Institute of Technology made all its educational materials available online for free. About 300 educational institutions have followed. Together they created the OpenCourseWareConsortium, which now provides 21,000 courses and has about 360 million online yearly visits .

Instead of searching the Internet for information, students across the world can now access focused courses, along with support materials such as sample tests that gather, assess and organize information into coherent blocks of knowledge. This has played a pioneering role in what is nothing less than a global educational revolution.

Despite the major benefits of providing educational materials online, this development has not been without critics. Some scorn online learning as "virtual," but for most young people, digital communication is the new reality. They increasingly video-chat via platforms such as Skype, use web-based forums to search for and share useful information, connect with friends via social media like Facebook and purchase their goods online.

Other critics have justifiably pointed out that online programs are often not interactive and focus too much on content, which cannot be equated with knowledge, and that learning needs interaction between students and teachers.

But as pressure on higher education intensifies, the reality of campus-based study is that teachers often find themselves mere content providers to hundreds of students in a lecture hall, particularly at the undergraduate level. The personalized, interactive learning experience that critics of online education uphold as an ideal is simply not what many students get on campus today.

Moreover, in the last two years, major steps have been taken in open and online higher education that deal with exactly the questions of how to enable the learning process, provide

structure and facilitate interaction on line.

At present, almost every aspect of education can be found online: content, homework, interaction among students, automated feedback, testing and certification. Good examples are Stanford's and MIT's "massive open online courses," which have attracted around 100,000 students per course.

These are all quality courses. On top of content, they include structure, including a starting and finishing date for everybody joining and a final test.

This example has been followed by many other institutions. For instance Open Study and the OpenCourseWare Consortium have provided interaction by building student communities around online materials, the largest one being mathematics with 83,000 students. They have also started granting informal certificates to students who finish a course.

Taken overall, digital technology and the Internet are thus key to tackling the top challenge in education: allowing people from around the world, especially in developing countries, access to educational materials they would not otherwise have. These technologies also circumvent the rising cost of traditional education in many developed countries, accommodates the increasing number of students seeking higher education and bridges the gap between education and the world of new generations of students.

As with all upheavals, the full implications of this revolution are not easy to predict. But it can only be positive for human development and advancement across the globe at a time when both are badly needed to help ensure social cohesion and sustainable growth.

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The views expressed in opinion pieces do not necessarily reflect the position of The Moscow Times.

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