By Roman Gelembjuk

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Will higher education system differ in future?

To get the answer on this question we need to understand if is everything all right in higher education. If modern higher education system is correct and everyone (or almost everyone) is happy with it then no need in changes. But if there are problems then we can expect changes.

Does modern higher education system have problems? If we care only about USA and West Europe (and other developed countries) then we could say "Higher Education will slowly transform under the influence of technology. All core principles will stay unchanged". The reason is obvious. Developed countries built good higher education system. It filters gifted and talented children and allow them to get higher education for free or for low price. Such system seems even and, in general, satisfies the requirements of society. Of course, there are problems. On my opinion, on of biggest problems is not reasonable value for money . Nevertheless, imbalance is not sufficiently serious to accelerate changes.

What about developing countries? Population of such countries is bigger then in developed countries and there is no fair higher education system. Many gifted and talented children have no chance to get higher education. The have choice – pay big price to get good higher education or pay less money to get low quality education (formal higher education without real background) or get nothing and lose chance to go up with social ladder. What if they get some alternative that are cheaper then traditional higher education? They definitely need the alternative because something is better then nothing.

Given the above we can conclude: Yes. Higher education system needs changes. It doesn't satisfy needs of the international community now.

What can solve the problem of value for money in higher education? How to get good education if you don't have money?

Is e-Learning the solution of the problem?

More 15 years we talk about technology will change higher education. We have all requirements to start mass using e-Learning as alternative to traditional higher education. It must be much cheaper. However, online education still is not the alternative to traditional college or university education. Why? Because a college education is not just learning courses and passing exams. It is life style, communication, building personal networking, sports etc. All this can not be done with e-Learning.

For last 2-3 years we see growing of online education offer. I can see 2 big streams in this area:

- Free Online Courses from good known universities and professors (Coursera, Udacity, EDX, Khan Academy etc).
- Commercial higher education programs from universities (Penn Foster College, University of Phoenix, Kaplan University and other).

Nevertheless, both streams are not the solution to change higher education. I can see a couple of reasons.

Problem 1. Employers do not trust degrees gotten online.

When a person creates own resume and writes in the Education section "I have degree gotten in online university" then the employer will not think the person has as good level of knowledge as a person with a diploma from traditional college or university. If the employer chooses between 2 candidates on a position and one candidate has the diploma of traditional university then the employer will prefer him. We need big changes to overcome this stereotype.

Problem 2. Online courses do not include practicum.

Online courses is good way to get new knowledges. However, how a student can test the knowledge in practice? For some specialties like programming this can be done online too. What about physics or chemistry? No method to do this online. Most of specialties require practice offline.

Problem 3. Chaos and incertitude.

If you google the phrase "online course <something>" you will get thousands links on websites offering online courses on the subject you need. There will be free and paid courses. And some resources that are not education courses just something similar to this. How to choose what you need from diversity offers. It is not easy.

The second problem around this is that there is no one standard of making a course description. What are prerequisite of the course? Most vendors writes something like "basic math". But "basic math" can be interpreted very broadly. What if I want to learn the course "Basic chemistry" from Vendor1 and then continue my education with the course "Advanced chemistry" from Vendor2? How can I check that "Basic chemistry" is correct prerequisite for "Advanced chemistry" from the different vendor? It is the problem.

Solve problems and get Education 2.0

Can problems described above be solved? I suggest my vision of how education system will transform in next 10 years.

Step 1. Skills substantiation and education passport

When a candidate on a position writes a resume he needs to describe his education. For traditional higher education it is not the problem, the candidate just writes his diploma details. What about education gotten online? In near future we will see growing of web services for displaying own education history and achievements – education passport. First examples are OpenBadges from Mozilla, CertificatesWall or LinkedIn profile. Such services will help the person to show education level to the employer and partially solve the Problem 1.

Step 2. Special search systems and ratings

Now we can see many online education vendors. We can find hundreds of courses on a subject we need. In next 2-3 years new rating systems will appear. There will be portals where students

can rate, comment, leave feedback about courses they did. Such services will help to find the best courses for the student. Online courses vendors will post their courses to the directory to get courses rated, commented and compared against alternative courses from other vendors. This will be the first step on way to solve the Problem 3.

Step 3. Local partners

In near future the problem of practice for online courses will be solved. First solutions will be offered by commercial online courses. They will find partners in big cities to allow their students to do practice part of a course. Students will be allowed to find nearest local partner of education vendor to do their practice tasks. Local partners can be laboratories or companies with internship for students of the course. Then big free online education companies will develop mutually business model for partnership with local universities, colleges, companies to allow free access to laboratories for students of online courses.

First steps in solving of Problem 2 will be done in next 2-4 years.

Step 4. New business opportunity

Need for local partners for online courses will initiate a new kind of business. Initially in big cities then everywhere "learning place" or "colearning centers" will appear. It will offer individual or group using of laboratories to do practice part of online courses. This will be something like modern coworking centers. Students can visit "learning place" and use it just for access to Internet in a calm atmosphere or to communicate with other online students in offline groups of interest. There will be different models in this business. Some companies will have contract with online courses vendors. A vendor will offer the list of local partners to do practice and a student will not pay for using "learning place" additionally. Other "learning place" companies will offer time in laboratories without specifying a vendor. This will be final solution of the Problem 2. And also this will help to solve the Problem 1, because employers can be sure that knowledges from online courses are not only theoretical.

Later, big colearning centers will start to offer full time students community service. This will be campuses where the students can live and learn their courses according to personal education plan. This service will be much cheaper then living in a traditional college (a student pays just for been there). Every client of the colearning center can be a student of different online courses vendors. They only do offline practice together. Every student has own education path.

Step 5. "Skills Tree" standard

Education vendors will create community and discuss the need of courses description standards. Some international organization (for example, ISO) will create the standard of skills description. For every course it will be possible to assign the set of skills that are developed in the course. This will help easy to find what prerequisite skills are required. Every profession will be defined as the exact set of skills. Having the profession title it will be possible to build "education path" using standard skills tree. The standard "skills tree" will help to find what courses develop the same skills and are alternatives accordingly can replace each other. Problem 3 will be solved when this has been done.

Using "skills tree" and "education passport" it will be possible to detect if the person has required degree or not.

Step 6. Employers' rating for courses

Online courses will have 2 types of rating. Students will rate courses together with employers. Employers will rate their employees skills. This will cross-cut rates courses where skills were trained. Employers rating for a course will be, probably, more important then students rating. This will finally solve the Problem 1.

Step 7. Individual courses vs packages of courses

Traditional colleges and universities will loose clients (students) because more and more students decide to learn online + practice in local companies or in "colearning center". Colleges changes their business model to be able to compete with education 2.0 model. They start to sell individual courses instead of "package of courses" (pay for year and learn many courses). Students can combine online courses and individual courses from colleges. One who has extra money can buy more courses from university, who don't have money can choose free online course that develops the same skills.

There will be big education vendors (former universities and colleges) and small vendors offering one or few courses (individuals who wants to teach students based on own personal experience).

Step 8. Colleges change under market press

It is more and more difficult to compete with cheap education 2.0. Some universities fail. Some changes to be success in new reality. Colleges becomes big colearning vendors (hostels, laboratories, group work etc). Packages of courses will still be offered but for much cheaper prices. "Pay for 12 courses now, get the profession and save 15%!". This will be typical advertising of big education vendors.

New higher education system – Education 2.0.

Step after step, consistently and organically we will get new higher education system - Education 2.0.

What are benefits of such system?

- **Dynamism and flexibility.** Traditional education system was created when the life was not so fast. Modern education system is still too inert. Education 2.0 can adopt to changes immediately. When the market requires new skills then new education courses will appear next week. And students can change their education paths on the fly.
- **Cheapness.** Education 2.0 will be definitely cheap. It can even be free. Only offline work with special equipment or in special environment will cost money. Now and then, some exclusive courses will require payments. New higher education will be available for everyone.
- **Individual and adaptive education path.** When the student starts his education he creates the outline of his path. If the student changes his aim and decides to get different profession after 2 years of the education it is not the problem. He can change the path and loose nothing.

Changes already started. Yang people in age 12-14 will have a choice when the time has come to get their higher education. No monopoly of universities any more!