Establishing or Re-establishing a Connection between Education and the Workplace

Stuart Smith
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Dr. Stuart Smith*

I HAVE BEEN ASKED TO TALK ABOUT the connection between education and the workplace with some reference to NAFTA. At one time or another, I hope to touch on the preparation for and the transition to work from the viewpoint of people who are now at school. I will also discuss Continuing Education for those who are already at work, along with Canada/U.S. issues regarding both those types of education.

Education has always had two purposes. Personal growth on the one hand, and economic improvement on the other, for both the individual and society. The economic improvement has been mainly via preparation for the workplace. And at every level both purposes are expected.

There are extremes. Maybe a person taking auto mechanics is not really expecting to be intellectually broadened. And maybe a person taking philosophy as an extension course is not necessarily expecting to augment income. But with the exception of the extremes, generally speaking, people do expect both personal growth and some economic improvement from most of the education which they receive.

During a survey in which I participated, we asked university students what was more important to them, personal growth or economic improvement. We found, whichever way we asked the question, that they always insisted on both. We asked them if they knew they could not get a decent job upon graduation, would they quit school, and generally, the answer was no. On the other hand, if they knew they could get a good job, but they were not learning things that broadened them as individuals, would they quit school, and the answer was no. So either way, they expected to get both economic and personal growth out of their education, at least at the university level, and I think that is true at the high school level as well.

There is a myth at the academy that there was a great golden age of universities in the Middle Ages where people just learned for the sake of learning and educators did not have to taint themselves with preparing people for grubbing in the economy. That is a myth. It is simply not true. People have misunderstood what happened in the Mid-

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Middle Ages. The only subjects they needed to learn at a high level in order to earn a living were what we now call classical subjects. But the only jobs that required a university education in those days were religious institutional jobs, teaching of various kinds, translating, illuminating manuscripts, acting as scribes, and so on. These people got what you would call a classical education, but it was still preparation for work.

I just want to set to rest the notion that universities ought to be above all that. In the United States, of course, you have that well-understood. Your land grant institutions were clearly in reaction to some of the excessive academic attitudes of eastern establishments. They made it plain that preparation for the world of work was a perfectly valid university job. It is almost silly to have to say that, but there are still people around, mostly on university campuses, who believe otherwise.

Education has to be regarded now as a tradeable service. As a tradeable service, obviously, it is going to be of interest within NAFTA and with the globalization of trade generally. I would even go so far as to say, with the advent of more educational software, that it could also be a tradeable good if you regard the software programs as manufactured items.

Let me say something now about the job-related purpose that is explicitly to be recognized in universities. There have been studies into how good the link is between the universities and the work force. It is quite interesting. We found that employers like to make speeches about what they really want out of the universities. They want a generalist, one who is broadly educated and capable of doing many different things. The trouble is they never hire them! The CEO who makes these speeches leaves the hiring to the department of personnel or human resources. They, in turn, get requests from different parts of the organization to bring in new employees, and always the first hurdle is the specialty hurdle. If you are a specialist and a generalist, great! But first you must be a specialist. That was one of the things we found, and I do not think that it is likely to change.

In a study done by the Corporate Higher Education Forum in Canada, employers declared that they were reasonably satisfied with the specialists that we were putting out in Canadian universities. I am sure that is true in the United States as well. But they said that once they got these people, they spent a lot of time further augmenting their skills and focusing them for the particular challenges in that firm. They wanted to see three things, however, in addition to more computer skills.

One was better written and oral communication; another was visioning. By that they meant the ability to formulate goals and work with others toward the implementation of those goals. The third was
leadership, which sometimes they interpret as being able to influence people. They seek interpersonal skills which focus the efforts of a team.

If you look at those skills; communication, visioning, and leadership, as those that are required to make the transition to work, it hardly matters what you teach people; it is how they learn it that counts. The method by which people learn is important if they are to learn to implement plans, to work with others, to show leadership, make speeches, or write essays. Whatever they are learning, these are general kinds of skills which emerge from extracurricular activities or from the way you structure the learning tasks.

For example, we met a professor who divided his class into groups and gave them readings to do. Every person had to write a précis of these readings and indicate what they agreed with and what they did not agree with and why. They then had to present their report orally within each group. A different person chaired the group each week and a rapporteur, another person in the group, reported what was decided to a plenary session. Then there was a discussion in the plenary session about the various readings and what each group thought about them.

That was really a very interesting way of teaching. The professor was always rated extremely highly as a teacher, even though he hardly said anything. What the students found, of course, is that they were learning all kinds of things. They were learning how to organize a group discussion; how to be a rapporteur; how to summarize the pith and substance of an argument; how to stand up in front of people and make the argument; how to read the readings and form opinions in the first place. They also learned that they had to do their work because they were excluded if they had not read the material and had not come in with their précis. They learned about the obligation to the team.

This shows that you can learn those skills; you can, in a sense, teach them, but you cannot lecture those skills into people. Those skills develop from the way they go about the work in a learning environment. The learning environment is more important than the number of degrees that the lecturer may have.

Some other work has been done and is still in progress. I believe there is work being done at the Ontario Institute for Studies in Education in which they have actually spent a lot of time observing people in the workplace to note each skill that a person needs show during the course of a day’s work. They have done cluster analyses of what all these skills are to see if they can focus in on what really is needed in the workplace. I do not know the final results although, needless to say, oral communication and interpersonal skills were showing up as very important.

A lot of people feel that preparation for work is something done by people themselves; that you do not prepare people for work. They prepare themselves for work because they order their thinking; they order
their experience. Two different people going through the same course will probably get different things out of it depending upon what they think they need to get out of it. A lot of people say that the best way to get people prepared for the working world is to give them some experience in the working world, and that has been very, very successful.

Both in Canada and in the United States, work terms for high school students are catching on like wildfire. They are an excellent way to get students into the real world and out of the classroom, which some students find stifling at a certain stage. When they come back into the classroom, they have a much better idea of why certain things that they are doing are, in fact, important and, of course, why some of the things they are doing are not important. But they have a much better way of making judgments about their educational experience and the importance of staying in school. We have a serious problem that too many of our students are leaving before they finish high school, and that leaves them with virtually a dead end when it comes to employment in the future.

The analog to work terms at the higher education level of colleges and universities is the co-op or sandwich program. This is probably the most outstanding success that we have found in the Canadian system. It is not a Canadian invention; it comes from the United States. But, oddly enough, we have implemented it more than the Americans have. It is popular for lots of different reasons.

When one is in school six months and working six months and keeps doing this for a period of four years, one gets a much better idea in practical terms of what is expected at work; one also has a much better chance of employment. People obtain experience, and often, end up landing with the same employer for whom they worked as a student. But even if they do not, they have gained experience in the field for which they were training. Sometimes they learn they do not want to be in that field, something better to be learned early than late.

Another benefit is that the whole university develops a better liaison with employers in the community. The University of Waterloo, for example, where co-op has been a very big feature for many years, is a university that is very well-aligned to the high-tech industry that surrounds it. In fact, Waterloo spawned much of the high-tech industry because they sent their students out in co-op programs. When the students are out, the professor has to talk to the manager of the company. Once they are talking, they may find that there is an interesting problem that needs to be solved and the professor may do some research on it. People begin to actually make some money out of it and the entire experience brings work and education closer together. The student is the liaison, so to speak.

The most important benefit of the co-op method, however, is that the students re-orient the way they deal with their education once they
have had real experience in the working world. They learn the same subjects, but now they re-orient the way they attack them and in a way which serves them well in the future.

Another form of education pertinent to the transition to work is education for self-employment. We all know that there has been a tremendous increase in self-employment. Virtually every program at community college has an element to it, or should have, where people ask themselves what they would do to sell their skill on their own, as a private practitioner. People are learning the rudiments of self-employment, such as inventory, balance sheet, a set of books, dealing with a banker, keeping your bank account in balance, and so on; simple stuff. But this is turning out to be important and people are starting to demand that kind of education.

Another growing demand is for what I have called polytechnic education. That is probably a bad word to use because polytechnic education means many different things in different places. I refer to education which is a combination of general (or liberal education) and work-oriented (or vocational) education. Too many people are completing a Bachelor's degree and are then trying to figure out what they are going to do in life.

In Canada, students are rushing back to the community colleges in search of a degree and a career that is employable. This is a misuse of the community college. It was never intended that the community college serve people who could afford four years of university and then come back and compete with some poor kid out of high school.

This is a serious problem. Now up to fifteen to twenty percent of the people at our community colleges are university graduates. To me, it speaks to an obvious requirement: people want general education and the degree, but they also need a job. Education which combines the two is important.

We have one or two institutions in Canada like that. We have one called Ryerson Polytechnic, which is now Ryerson Polytechnic University and we have the BC Institute of Technology out on the West Coast. But, generally speaking, we have two solitudes, a gap between the vocational side and the academic side (except for the professional schools at universities, of course). We must find ways that students can get both kinds of education without the misuse of resources that is represented by having to take a whole degree at the one institution and a whole diploma at the other. It should be possible to get a degree with a diploma built into it, and that, of course, requires transferability of credits.

You heard earlier about how difficult it is to get people to give up turf in professional organizations. Well, there is a similar situation here and it is equally depressing. A lot of institutions just do not want to accept somebody else's credits. And when you ask the university to ac-
cept a college credit, you are into even more difficulty. Clearly, there must be some willingness to set standards high enough at the colleges, but the universities have to be flexible enough to permit mutual recognition.

In the Provinces of Alberta and British Columbia in Canada, that recognition is very well-advanced. There is a large book in which all the college courses are listed with the exact equivalent credit that will be given at all the universities in those provinces. Each university is different; there is a certain amount of freedom in this. But that book does exist so people who go to a college know that at the same time they are getting some credit toward a university degree. In Ontario that is less common but in the Thunder Bay, there is what they call “Invest your Diploma in a Degree” program, and that is very popular.

If we want to bring the workplace and the place of education closer together, we must attend to that huge population out there who want to incorporate both a general education and a vocational expertise, both of which are demanded in the workplace. Our institutions may need to give an incentive to offer that.

That can be sequential. In other words, you can do your vocational study first and then do your university study and at the end of a total of four years, receive a university degree. Or it can be simultaneous. Where you have colleges and universities near each other, a person could attend both of them at the same time, and at the end of four years, come out with a Bachelor of Applied Arts or a Bachelor of Applied Science or something similar. That would help bring the two closer together.

Let me say something about continuing education. I am speaking here of refresher courses, updating, and so on that are required by people who are already at work. There is clearly a trend for private brokers and private institutions to put together courses that are needed at various workplaces. These programs are specifically designed and tailored to the needs of the employees, and that is a good thing.

I think there is room for institutions, however, to do a lot more, but they need to be more flexible. The difficulty is that the institutions tend to be somewhat rigid with respect to the hours and location. “You can come and take my course, but my course happens to be given on Monday, Wednesday, and Friday between 10:00 and 11:00.” I may not need the whole course, just certain parts of it, and I cannot possibly get there at the listed times.

Flexibility is possible if we move more towards self-directed learning, and there are many institutions that have been doing that lately. Self-directed learning requires that you are very clear about the objectives that you are trying to achieve, that you develop learning resources, and that the program be modularized. That way people can take only the parts they need. They can obtain the learning resources
for those fields, direct their own learning and then, when they are prepared to do so, take a test to indicate whether they have mastered the material. They need tutoring and experts available to them so that they can make sure they are headed down the right path.

Self-directed learning of a modular nature does permit institutions to be much more flexible in what they offer to folks who are already in the workplace. Needless to say, computers make this even easier. With the Internet, it is possible to do that at a distance. You can actually stay at your workplace or home and take your courses.

The problem has been that we are not moving quickly enough toward putting what is needed into a form that can be accessed in this manner. With more and more demand for students to go to a university, and the need to educate more people with less money, we have a classic productivity challenge.

Every industry has had to maintain quality and improve productivity. Education does not like to think of itself as an industry, but it is. But rather than deal with the issue squarely as most industries do, namely, by improving technology, educational institutions have chosen to have people stand in front of larger classrooms or they have put cheaper people such as teaching assistants in front of their classes. This is not a high-quality way of solving a productivity problem. It seems to me that we should be adapting our material by carefully orienting it to objectives, utilizing new technology to improve productivity.

When I looked into why that was not happening, it was quite interesting. The sort of people who might do that, namely, the really inventive and energetic teachers who are at a university, feel that to do that would jeopardize their careers; that to spend large amounts of time to do anything related to teaching but particularly to do something innovative with relation to teaching was suicidal; that their careers depended entirely on how many research articles they had published. In fact, the weight of those research articles determined their future both at their own institution and, if they ever wanted to be mobile, within the system. Teaching would be of absolutely no importance to their career advancement, least of all if they spent their time trying to computerize their course or otherwise make their course accessible.

Then there is the matter of turf protection. The Open University of British Columbia is one of the most advanced distance education centers in Canada. Yet people there said to me that it was laughable that a former minister of education had gone to England and brought back a lot of very good television programs on Shakespeare done by the Open Learning Channel. He paid a quarter of a million dollars and brought them back to the Open University in British Columbia. He felt they could present Shakespeare courses using the finest lectures in the world on the subject. But they never put a single one of those on the air; they thought it was laughable. They thought I would understand...
and were surprised when I sided with him.

But they said these were all fifty-five and sixty minute lectures and our lectures are normally forty-five minutes, and they are dealing with British places. They said their courses were not oriented the same way as the U.K. courses. It is the way each opera company seems to want to build its own sets.

This turf protection runs deep in education. The right to determine how many minutes the student is to sit in front of what material and who is to present that material is seen as fundamental.

One suggestion we made at our commission with respect to trying to strengthen the workplace link was to have universities obliged to survey their graduates and employers with respect to levels of satisfaction and publish the results regularly, for instance every three years. Universities are not doing that and, furthermore, they deeply resented the suggestion that they should.

Genuine accountability requires measures of this kind. I was called a consumerist. This was the biggest insult that the president of one of our largest universities was able to hurl at me; apparently that is a bad thing to be.

What about high schools? An idea which is gaining popularity in the U.K. and is also making inroads in the United States is to put an individual high school under an individual community board. You may not see immediately the link to the workplace, but there is one. The community board has the principal reporting to it rather than to some system that nobody has any real control over. The community board is able to demand of the principal evidence that the students are getting jobs and are being prepared for the work that is available in that community. For example, if that community is an agricultural community, they certainly have to make sure the students know something about agriculture.

The local boards now have demanded from the British government that they set at least half the curriculum locally; the other half is set nationally. I think it is too early to say whether this is going to work. But it has already shown that local people from the business community and elsewhere will participate in the schools and hold their local school accountable for the graduate finding work in the community.

Let me say something about tradeable services, a subject I touched on earlier. Distance education is a rapidly growing field. People are able to stay at home and take courses from well-known universities. People who live far from universities have a much lower rate of university education in Canada. So we adopted a distance education program. Normally these courses consist of learning materials, such as audiotapes, videotapes, and written materials, as well as people at the end of a telephone line or locally available to act as tutors. Many people are getting a good university education in this way.
With the growth of the Internet, we will have many more course offerings and these will cross borders. If there is a perfectly good course offered at a distance and people can use the Internet as their connection to that course, it strikes me that they will do that. Sooner or later, those markets are going to be tapped into, and there is nothing that governments will be able to do to prevent it. It does not matter if some province or state will not recognize this or that degree. As long as employers and other schools recognize it, that is what will count.

Of course, professional education can not be handled that way because professional societies tend to set up barriers against accepting people who do not go through their particular hoops. But other forms of education are bound to cross borders in that manner.

This type of distance education will bring institutions into either cooperation or competition. I can well see a major United States university offering a Master of Business Administration via the Internet to Canadians and it would probably be oversubscribed. There is nothing to stop it. On the other hand, a Canadian institution might decide to join forces with an American institution, or even a European one, to offer joint programs so that people can get an international or global education. We have a global economy and universities will need a global outlook.

The growth of self-directed, modular, distance education in an era of tradeable services is, in my view, inevitable, but it certainly will take some time. In the meantime, things like work teams and co-op education are a very good way to ease the transition from the educational institution into the workplace. The lessons of globalized markets have come to industry, however, and they are on their way for education.