



## Rethinking our Educational Systems in the West.

*We need far more effective policies for the management of our national educational systems so that we can provide a citizen body capable of generating higher productivity and improving future prosperity.*



**INTEGRATED  
INDUSTRIAL  
LEARNING  
SYSTEM**

In my new book **Take Back Manufacturing** I explain how North America and other western nations must act rapidly to set industrial policies to undertake the reshoring and localization of our over-extended supply chains and support the ailing industrial and resource sectors. In this way we can avoid the growing geopolitical risks and recapitalize on the opportunity to have a far more balanced economy of resources, manufacturing, and services, and so better support national prosperity for all their citizens.



### The educational system is the weak link...

One issue that will make or break such an industrial policy is the need to have a capable workforce, and this requires that we rethink our current educational systems to far better balances education with training and industrial experience into one effective experience for all our citizens.

We have seen significantly educated youth from our universities and colleges unable to follow meaningful careers in a field or profession for which they may be academically qualified because they lack the related training and work experience to engage in a meaningful career journey.

Also, we have many youths that have followed educational journeys that are badly mismatched with the education, skills and experience needed to become employable, and they have been forced to realign and repeat their learning process, creating much wasted effort.

This “employability” problem is far worse for those youths outside of the university or post school educational system who have fewer skills and training, and even greater problems with gaining stable employment status.

We also have an older working age population that badly needs to re-life their on-the-job education, training, and skills.

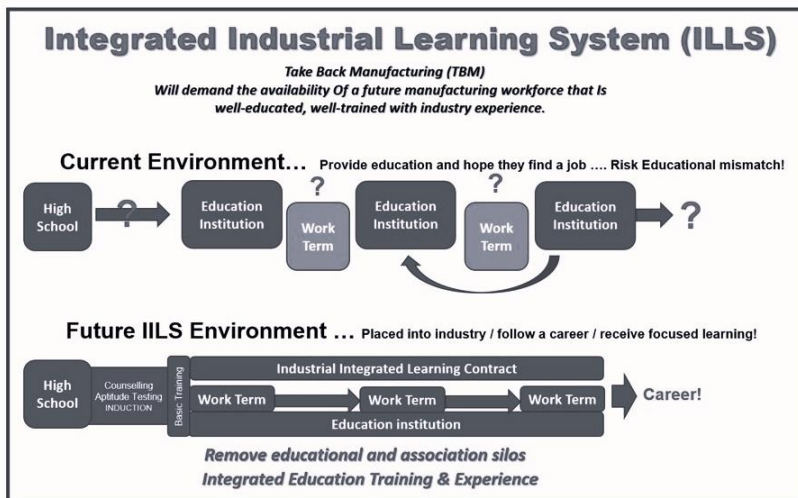
So, as globalization reverses, we will soon be faced with an economic growth opportunity and related jobs growth, but a huge and looming gap in workforce capability and skills.

## We need a much more integrated system for learning

We will need a new **Integrated Industrial Learning System (IILS)** to better support and develop our citizen resources, and we need the government to direct this through firm policy with strong business leadership and the full support of the educational institutions.

Although some progress has been made at the provincial level on increasing some trade training programs, we need to significantly increase our efforts to provide such an IILS. This must better balance education, training and work-experience into one roadmap of learning activities to prepare the citizen workforce for the future recovery of our industrial capability across all trade, technical, administrative, service and professional disciplines to support the industrial and business sectors.

Here is a comparison of the current learning environment and the proposed IILS environment ...



Our current learning environment is wasteful, ineffective, and expensive, and although some trade apprenticeship systems and co-op programs exist, they are far from integrated and not implemented at an effective level.

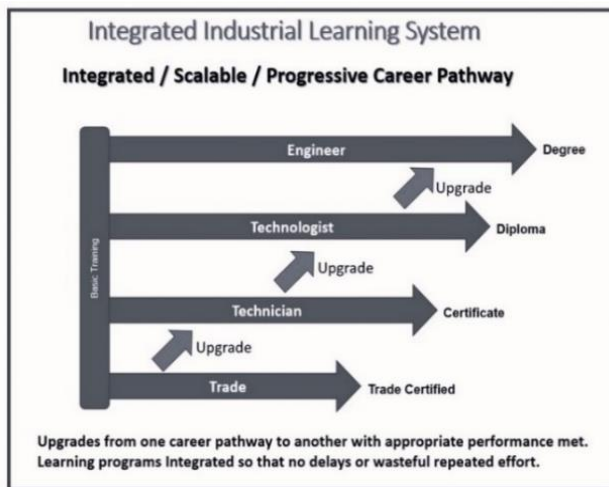
Currently our youth are sent to school and progress through post-secondary education with almost no contact with a potential

employer, or, if they are lucky, they may land a final year co-op or poorly paid internship toward the end of their academic journey. Simply put, we spend a fortune educating our youth and hope they find a job. So, the current learning system can result in significant misalignment between the needs of the businesses that have a shortage of skills and the massive investment the students are forced to make in the education journey. This can result in little career opportunity at the completion of their education process. Also, the education process can be far less motivating for the student who has no pressure to learn without an application in sight, as its clear that we learn better and faster if we see a need. Further, dislocating education from training and experience forces the educational institutions to try to emulate the training and real-life experiences in the classroom or educational labs, and this is much more difficult and expensive to do out of the context of an industrial or business environment.

In the new IILS, youth are briefed, counseled, aptitude tested and coached early in high school with the opportunity to fully understand the new business environment they will be joining. Then they are recruited into their chosen industry or business sector prior to the final high school year. When they join the business or industry, they undertake a planned education and training process and gain experience in an integrated manner. They can quickly become valuable members of the business environment.

This means there is a close coupling of education and practical application training, so the process of learning is more effective for the average student and much easier for the educational institutions to provide the education.

This can also avoid a current issue we see in many of the professions: students attend a university campus for three years to be educated and receive little hands-on industry experience or business training, and they end up over-educated and under-trained and unprepared for the real world of their profession.



The other attribute of the IILS system would be the ability through entrance criteria for participants to enter at different academic levels in the program, and through progression-grading they can seamlessly upgrade to a higher career level.

The IILS is a long-term system administering an "earn as you learn" career progression that integrates workplace training and academic education enabled by individual career contracts. It will offer industry and business a highly certified

and licenced workforce, and a shorter deployment cycle to develop the skilled team members needed. It offers integrated learning, a career progression, and higher engagement and career placement. It will require participants to sign-up to a career contract that will provide reasonable employment continuity and stability and a worthwhile career, as long as they perform and obey the rules of the contract.

The IILS is a better approach, and a better investment for all concerned, and is very similar to the British apprenticeship system that was very effective in the early 1960s and 1970s until it was dismantled by a disinterested government in the early 1980s, but has been reinstalled in 2013.

### **Supporting mature students already in industry**

The IILS solution must also focus on business-friendly learning systems that the mature workforce can access while still being employed in their busy day jobs. This must be managed with night classes, planned day release, and weekend programs as needed. We need to get serious and ensure we maximize the future opportunities for all our citizens.

## **Owned by industry, coordinated by government, and supported by education**

An ILS approach cannot happen without a strong commitment and realignment from government, the educational institutions, and the business community.

The national governments must maintain an effective policy and manage the ILS by appointing an “ILS Control Board” that directs the ILS with industry leadership and educational institutional support. This ILS Control Board must have the resources and mandate to engage students while they are still in high school or in the current workforce. Then, assist in placing them into a stable career journey with participating companies that will propel them through an integrated Learning process to create trade, engineering, service, professional and management skills.

The financial burden should be supported by some form of government assistance in terms of grants or tax reduction. It will also require a change in the commitment from the industries and business sectors to invest in such a learning system for new trainees and their existing workforce and learn how to accommodate the off-work hours needed to support education and training. And it will require a change in operating style by the professional control and accreditation institutions who must restructure their certification processes to be seamless and far less siloed.

It will require a significant culture change to attract young people as the public image of manufacturing and many business and service sectors are viewed as dark, dirty, dangerous, unrewarding and unstable employment. The next generation must begin to see their future careers as cool, and believe it is something that will build a prosperous future. We have a lot of work to do to change this negative image, and just talking about the changing economic future and telling the real story will help. Getting the national media to talk it up once they can see the political will and focus will help cement the roadmap as a national imperative. We will need to deploy knowledgeable industrialists and business experts into our school system to promote, counsel, and recruit. This will include re-educating everyone, including the front-line educators who certainly do not have a good grasp of careers outside of the educational systems.

## **The educational system priorities must be reset.**

Some educators appear to have lost the real purpose of their role in our society. Currently there is far too much focus on woke style social issues with many parents highly concerned with this form of teaching curriculum and the impact on young children. We need more education and training, not social conditioning and indoctrination. The educational system at all levels needs to focus far more on STEM education, basic skill training, and personal aptitude development to enhance further learning and prepare the participants for a modern economy.

## **Our learning resources are being misappropriated**

We do have the educational and training resources to undertake an ILS and process or re-process the citizen workforce. We have the campuses, industry training centers and enough full or part-time experts that could be made available to educate and train our next generation of working citizens and upgrade those that are already working. But we have far too much of our resources both in the classroom and at the administration level focused on gaining revenue from foreign students.

It's clear that some foreign students are interested in the experience of being educated in a western nation, but almost all of them are mostly making the effort to get a back door ticket to our immigration system via a student work permit and eventual permanent work permit and citizenship. It's agreed that some foreign students do stay and add to the economy and become entrepreneurs, but unfortunately many join the workforce and take both permanent and temporary jobs that displace employment opportunities for the citizen ranks, and in some cases generate over capacity of the national workforce. Also, some through language or other assimilation issues swell the ranks of the under and unemployed.

Our existing citizens must come first if we are to have a national image that encourages citizenship as a privilege that once earned is of good value. We need to stop using the foreign student visa as a source of cheap labor and minimize the suggestion that access to the immigration process can exist. Therefore, it would be far better to not offer a work permit as part of the foreign student visa, so that we halt any ability for a non-citizen student to work in our economy while they are on such a student visa.

Also, adding vast amounts of temporary workers in an uncontrolled manner with foreign students and any other temporary work visas is a sure way to distract capital investment and destroy productivity, as well as over burdening all the support services such as housing, schools, health care systems etc.

The only possible exceptions are new immigrants that come with firm and pre-screened job offers that are needed by the economy and cannot be filled by the existing citizen base.

In the past we have held unrealistic rose-tinted views about both foreign students and immigration but that is now changing.

## **The ILS will be essential to recover our prosperity in the western nations.**

We need a powerful ILS to support our future economic objectives to ensure our working citizens and our future youth get an opportunity to fully participate in the prosperity of our balanced economy. Due to the last 30 years of globalization, we have a current workforce that has almost forgotten how to manufacture and operate in an industrial environment or participate in a competitive business environment. They will need a learning system to get back this important capability. Progress is being made in developing apprenticeship programs in some western nations, but this needs to be expanded and accelerated into a full ILS if we are to provide for the skills needed in the future to enable us to take back manufacturing and develop a productive workforce.

## **It's time to rethink the whole education process!**

It's time to rethink the whole education process in the western nations and focus it toward being a significant value to our future economy.

Due to far less friendly geopolitics and the increasing cost and security of global supply chains its now imperative that we reshore our industrial and value adding business sectors so that we add much more local value to our national economies and local trade blocs

To achieve this reshoring journey, it's time to put our citizens first and provide them the focused learning so they can have the best opportunity to participant in our economy and make it productive and prosperous.



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He consults and educates worldwide on Business Productivity Improvement, LEAN business practices, Advanced Manufacturing Engineering, Future Supply Chain Management, Industry 4.0, National Sustainability, Global technology transfer projects and joint ventures and more.

He is a past chair of the Society of Manufacturing Engineers and the leading advocate and spokesperson for the Take Back Manufacturing Forum, and the North American Reshoring initiative in Canada.

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