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Title:

Inclusive Entrepreneurship in a Knowledge Economy

Entrepreneurial Evolution in a US Knowledge Based Economy

During my first year of graduate school I was required to attend a seminar for an international relations course. One of the speakers represented Ball Corporation, a US conglomerate that started off as a producer of glass jars in 1880 and is now worth approximately \$14 Billion. The speaker, who had also spent time in city government, was telling the audience about a breakthrough program offered by his corporation. The program targeted high school students in rural Colorado and low income neighbourhoods; it gave them the opportunity to join a training program that would provide a path to employment upon his or her graduation from high school.

I was in a room full of graduate students, thought leaders, and CEOs and the only commentary the speaker received was praise. The majority of the audience was interested in the businessman's ability to create a program that gave students the skills they needed for employment after high school. My reaction differed.

There is distinct feeling of unease that arises when I think of teenagers funnelled into low-skilled technical jobs for multinational conglomerates. This feeling arises because of the presumption that these students will never become innovators or adept entrepreneurs. A presumption that not only struck me as unfair for the high school students targeted by the program but also made me doubt whether or not my own commitments to university were worth the financial burden.

I've heard the argument for programs like this before, it goes along the lines of: we need to give kids the skills they need to get a job and trade or technical programs are the best way to do this. The argument is rooted in the fact that not everyone is cut out for a college degree either due to a lack of interest or a lack intellectual capability. Rather than wasting tax dollars on higher education subsidized by the government, the money should be allocated to low-skilled, practical, training programs. Because, in reality, who really needs to learn about Aristotle and Pythagoras?

The speakers program exemplified the success of technical schools and their ability to give students the skills they need for employment, subsequently enabling them to find jobs sooner than they would if they went to a university. These types of programs are beneficial but they are not the key to productivity growth nor an improvement in socio-economic well being. If a nation has the resources to provide everyone with a college education, in turn creating one of the most competitive and highly educated generations of children, then it should do so.

Trade schools, while useful, can limit a student's ability to think creatively. The speaker's proposal gave me a sense of unease because it blatantly excluded a group of students from the opportunity to pursue higher education, refine his or her sense of analytical creativity and maybe run a business of his or her own. The representative of Ball Corp did not present a training program that is the answer to income inequality and sluggish productivity; he instead presented a program that would transfer high school students into low-skilled workforce. Programs like this do not make up the foundation of innovation that Peter Drucker has identified as resting on the the systematic and purposeful search for business opportunities.

Peter Drucker defines an entrepreneur as someone who, "by definition, shift resources from areas of low productivity to areas of higher productivity and yield;" the creativity and analytical thinking developed in higher education are required to accomplish this task. When I think of an entrepreneur, it parallels the profile drawn up by Drucker. A risk taker, someone who is not only willing to embrace change but also, after enough determination and tenacity, turn it into opportunity. These skills occur naturally and can also be taught. A friend of mine once said, "you were a liberal arts major, you went to school **to learn, not to get a job.**" Admittedly, I have questioned my decision to complete not one but three degrees in the humanities but I am thankful to have received an education that emphasized analytical creativity, the type of creativity that fuels a potential innovator. Higher education helps one develop the skills necessary to become a successful entrepreneur. A number of sources claim that US millennial are the most diverse, educated generation to date. As one of the most educated generations to date we have the capacity to bring about entrepreneurial innovation on a much larger scale than previous generations.ⁱ

According to the World Economic Forum "a failure to embrace long-term structural reforms that boost productivity and free up entrepreneurial talent is harming the global economy's ability to improve living standards, solve persistently high unemployment and generate adequate resilience for future economic downturns."ⁱⁱ Presenting a training programs as an alternative to an over priced degree is not a bad solution for a student who would rather enter the workforce than attend university. However, these programs do not enhance development of entrepreneurial behaviour and therefore do not contribute to long term structural reform.

The inability of government to overcome the issues highlighted by the World Economic Forum are not rooted in the fact that we, as millenials, are over educated with useless, expensive college degrees, it is rooted in the inability of governments to bolster full-time, fairly compensated, job growth. By improving access to higher education and giving us the tools to become successful entrepreneurs, governments might break through sluggish productivity and persistent income inequality that lie at the core of underemployment.

In addition to maintaining access to higher education for our generation public leaders can multiply the benefits of training programs by integrating entrepreneurial thinking into these programs by encouraging students to starting thinking independently. At its bottom line entrepreneurial thinking requires the teaching of critical thinking, emotional intelligence and the ability to embrace a challenging environment. Bringing these components into training program are important not only because they encourage creativity at the base of the pyramid but also because they give these individuals the skills they need to cope with a job change.

I believe that the development of machine learning, robotics and artificial intelligence will soon drastically change the way goods are produced. The auto industry and telecommunications sectors are two prime examples of the growing capacity of machines to replace a manual workforce. As the transition to from manual labour to automated labour continues, leaders in politics and businesses will be held responsible for an outdated workforce. These individuals will be better prepared for this inevitable transition if they are equipped with the abilities mentioned above.

When I was an undergraduate student I participated in an international volunteer program. This experience helped me realized that smart people are every where. I came to this conclusion after having a few contestations with one of my favourite cab drivers. The guy was smart. Mududuzie, could remember how to get to every location he had ever been to and never had to ask twice for a street address. An impressive skill in a city like Cape Town, SA. He was originally from Nairobi, religious, and willing to have conversations with me about everything. This included, racism, politics, and whether or not volunteering was just another way for the privileged to interfere with the lives of the poor. We are all victims of circumstance and I believe, if this cab driver was given the education and capital to do so he would undoubtedly have become a successful entrepreneur with a scalable business model.

Integrating entrepreneurial thinking into training programs, like the ones offered at Ball Corp, may not result in the type of entrepreneurial innovation that transforms society but as Drucker's states; "To exploit the opportunity for innovation offered by unexpected success requires analysis. Unexpected success is a symptom. But a symptom of what? The underlying phenomenon may be nothing more than a limitation on our own vision, knowledge, and understanding." Expanding this type of thinking to a workforce, through both low-skilled training programs and higher education may be the best way to

overcome a limitation of our own understanding and help to better embed entrepreneurial thinking into business and society.

Inclusive Entrepreneurship

San Francisco and San Jose, some of the biggest tech hubs in the US, are ranked among the top 5 highest performing cities in the nation.ⁱⁱⁱ According to one report the tech and science industries helped create 25,000 jobs in San Francisco from 2008 to 2013. The average salary for these positions was \$91,400, far above the approximate living wage of \$30,777 for a single adult living in San Francisco.^{iv} These numbers anchor the 20 year old New Growth Theory, which establishes knowledge and technology as the backbone of productivity and economic growth.^v San Francisco has successfully leveraged the most prestigious academic institutions and technological innovation to attract a high amount of capital investment and a talented pool of high skilled individuals.

The opportunity that exists in tech hubs like San Francisco is not evenly distributed. Income inequality can be construed as a barrier to economic growth and, according to some sources, the inequality in San Francisco parallels that of developing countries.^{vi} The prosperity of entrepreneurs in should not be isolated to highly skilled individuals with top university degrees and deep pockets. As Drucker believes, “innovation is not natural, it is not creative it is work.” Entrepreneurial thinking can be fostered within any community that embraces hard work; whether it is a low income community in a tech hub like San Francisco or a former industrial city in the middle of Michigan.

During my last year of graduate school, I was exposed to entrepreneurial ventures in green technology, data mining and energy efficiency through internships and course work. My work also exposed me to startups in developing countries that were not only creating job but also tackling climate change and improving access to social services. I also worked with small business owners in New York City who used the worker cooperative business model to move themselves out of poverty. The culmination of my experience is why I believe inclusive entrepreneurship should be a goal within the public and private sector. Seeing entrepreneurs in so many settings helped me realize that the prosperity associated with entrepreneurship in tech hubs can be shared across economic and social borders.

Resources like startup incubators and accelerators, access to office space, prototyping facilities, access to business consultants and financial advisors, can be offered to low income communities as a means of spurring entrepreneurial thinking across all income levels. Many of these resources are already provided by city governments. For example, The New York City Economic Development Corporation for example, host a competition that encourages entrepreneurs from immigrant communities to submit business proposals with ideas that target thousands of customers. These types of programs lay the foundation for extending entrepreneurial thinking into diverse communities.

By extending entrepreneurial thinking into new communities, the financial rewards that come with risk investments into innovation will be extended as well. This effort will bring forth innovation from entrepreneurs with a wider variety backgrounds and a wider range of experiences; subsequently increasing the chances of a revolutionary innovation. Drucker believed that “innovation consists of the purposeful and organized search for change.” If society is truly seeking innovation, then changing the profile of an entrepreneur is one of the ways public leaders can use Drucker’s theory to improve productivity.

Entrepreneurs for a Better Society

Bill Aulet of the Martin Trust Centre for MIT Entrepreneurship believes that “when there is a crisis, there is great opportunity for innovation.”^{vii} The crisis is now. Stagnant wage growth, environmental degradation, and increasing economic inequality, call for individuals who are not only willing to make a profit but also create systematic change. Entrepreneurs will never replace the welfare state because the solutions created by entrepreneurial thinking do not eliminate the downfalls of a capitalist economy. However, entrepreneurship can undoubtedly address social problems in the most innovative and efficient ways.

Many governments have recognized the ability of entrepreneurs to spur economic growth and address the needs of the public. In 2011, President Obama initiated Startup America to help revive the US economy after the 2008 recession. Today, Obama’s startup initiative continues to grow with the recent launch of the \$1B Impact Investment Initiative and the Entrepreneurial Mentor Corps Clean Energy Pilot Program.^{viii} Eight years after the recession began, the startup community has not only grown and but also contributed a plethora of efficient technological solutions to urban residents like ride sharing and streamlined banking services. When the US was struggling to recover from a recession, tech startups like Groupon and Facebook and a number of others generated multimillion dollar returns to investor, reinforcing the idea that tech startups can contribute to economic growth.^{ix}

Startup America helped contribute to the creation of investment opportunities for VCs, investments that supported the entrepreneurial efforts of business owners that contribute to job creation and revenue generation. By boosting entrepreneurship when the economy was weak and helping the venture capital investment cycle reach its full potential. Startup America has supported the notion that governments can leverage the startup community to cope with the effects of an economic recession.

The implementation of Startup America and the vibrant US startup community reinforces the seven sources of innovation laid out by Drucker; like drastic change in demographics, a shift in labour force participation and the structural changes to the US financial market, new knowledge and the unexpected, were factors in the development of the US startup community. Startup America has successfully exploited these sources of innovation; lending to the success of the US startup ecosystem. Despite the success of the program there is still an obvious disconnect between what is and what should, a reality that is amplified by US bipartisan politics. This disconnect leaves room for entrepreneurs to fill the gaps in social development that government has struggled with.

Entrepreneurs might be better at filling the needs of society than public services, however, the ability of entrepreneurs to address market inefficiencies will not render the welfare state irrelevant. In the free market, government exist to guide the invisible hand when the needs of the marketplace fail to align with the needs of society; this task is most obvious after economic cycles like the Great Depression or the 2008 recession.

When an entrepreneurs create self-sustaining business models that help decrease pollution, increase energy efficiency, improve access to Wi-Fi, or increases transparency in the voting process, everyone wins. These business generate capital while addressing societies most pressing needs. They can also address social issues more efficiently because they have no need for bureaucratic decision making. Additionally, there is no room for political incentives to disrupt the distribution of a product, which addresses a major social need. Rather than relying on government to provide a welfare services, social entrepreneurs efficiently utilize the marketplace to improve access to services like health care and education. Despite these advantages entrepreneurship does not make up for the pitfalls of capitalism like boom and bust cycles, meaning that the welfare sate will continue to be necessary.

Ten years form now, as the progression of robotics and artificial intelligence leads to the replacement of manual labour with automated machines the economy will naturally eliminate low-skilled jobs. In this case, the welfare state may become even more essential than it has been in the past. In order to cope with this transition, the public and private sector must create opportunity for those who's skills have been rendered irrelevant. In a knowledge based economy this means giving more individuals the ability to think critically, thrive in a challenging environment and adapt to the changes with an entrepreneurial mind set.

- i https://www.whitehouse.gov/sites/default/files/docs/millennials_report.pdf
- ii <http://reports.weforum.org/global-competitiveness-report-2015-2016/press-releases/>
- iii end <http://www.citylab.com/work/2015/01/americas-best-performing-cities-in-2014/384336/>
- iv <http://livingwage.mit.edu/counties/06075>
- v The Knowledge Economy, Copyright OECD, 1996
- vi <https://www.washingtonpost.com/news/wonk/wp/2016/01/14/what-silicon-valley-doesnt-understand-about-inequality/>
- vii Feld, 118.
- viii ["Startup America Progress Report." *The White House*.](#)
- ix Rosoff, Matt. "Born From the Ashes: Big Tech Companies Founded During Busts And Recessions." *Business Insider*. Business Insider, Inc, 16 Aug. 2011. Web. 22 Mar. 2016.