Opensource is the way to go!

By: Ryan Peters

## Executive Summary:

Washington State is budgeted to spend over $38 million on education in the coming year (Washington). Unfortunately, the state’s official budget shows little investment into programs for the development and cultivation of a tech-based-industry workforce (Washington). As the pace of innovation increases, the ability of any single institution to keep up with the demand for trained personnel and developing new programs will quickly become obsolete (Lee 6; Mattauch 40-2) If Washington State fails to capitalize on the new trend in the “citizen scientist” (Lee 6), it will risk losing the current educational edge it holds on tech focused career training. This would almost certainly lead to a stagnant state economy and open the state’s labor markets to increased risks for recession. **The best solution for Washington State to negate such risks is to direct educational spending towards crowdsourced learning development platforms.**

## Findings:

## Privately owned solution platforms cannot keep up with demand for scale.

For private institutions to keep up with growing educational demands, their costs must go up equally; In time, Washington state will no longer be able to afford that cost.

* The cost of technical labor in Washington state is astounding, to say the least. A software engineer can expect to earn upwards of $110k annually(Glassdoor.com, 2017). We cannot, as a state afford the costs of this skill bar. The only feasible alternative is to open the way for crowdsourced community driven innovation!
* With only a few private platforms providing education tools platforms and services, Washington State has too few options for shopping competitive prices; however, by investing into open sourced platforms the state can draw developer talent to that market (Levine). This will eventually serve as the catalyst that sparks several new start-up projects that will then compete with the currently established market.
* By providing open sourced tools, Washington State will have a tool for motivating the students of today, and the workers of tomorrow, towards Science, Technology, Engineering, and Math (STEM) skill sets. This will help ensure a steady supply of a highly skilled and highly productive work force for years to come (Levine).

## Crowdsourced development ensures rapid market response.

As the rate at which new technologies emerge is increasing, the complexity of next-generation problems grows.

* Tech-based industries have become very reliant upon highly trained and educated individuals innovating creative solutions to unforeseen problems (Tran-Thanh 90-1). Modern technology allows for ever increasing levels of remote design, consultation, and development of abstract solutions (Tran-Thanh 90-1). Therefore, Washington state should invest heavily into the resources that will entice those innovators to live here while the collect salaries for providing remote services; doing so not only increases domestic production, but increase imports as well.
* Investing in educational tool development will draw awareness to the issue; this can lead to industry support as has happened in other government funded projects (Balamurugan 266). Industry funding contributions on top of government spending has historically led to great innovation such as the Very Large Array in New Mexico, and the advent of the internet.
* The driving force in any effective return on investment will come from a strong market response. This is was demonstrated clearly in the late 1940’s through the 1960’s where a massive investment into public education resulted economic booms from innovation and development. Investing in crowdsourced educational platforms presents an opportunity for Washington State, and any other state that might follow the example, to plant the seeds for another such innovation boom (Balamurugan 268).

## Crowdsourced learning platforms will help the contributing developers stay on top of emerging technologies.

Keeping the work force up to date on new production systems is a major cost-factor for tech-based industries.

* Educational and expositional conferences are excellent ways to keep a work force on top of their skill set (Dubey 77). Businesses of tomorrow will also need to have a more cost-effective means to gauge public aptitude for newer more complex products. An open sourced platform could draw significant funding opportunities for Washington State to offload the costs of developing a more robust educational system.
* Open and crowd sourced education tools allow returning students to more easily come to terms with the application of the skills that are in demand. The need for software developers and data-systems engineers will never go away, only the specific subsets of skills within those disciplines will be outdated (Balamurugan 270). Funding an open and crowdsourced platform will provide an excellent opportunity for Washing State to lead the way in expanding access to the needed education for the workforce of tomorrow.
* Inspiration can come from many places, and one of the best ways to broaden the field of opportunities for those inspirations is to utilize crowdsourced solution design (Levine). Washington State can avoid the future risk of its core workforce becoming obsolete by investing in crowdsourced education platforms now. This is a point of fact that will become more apparent as time goes on, and it will be hard to accept for aging generations that have developed an entrenched mental time-scale for the rate of technological change; however, modern society is now in a unique transition period as the rate of technological change is starting to become perceivable within a single generation (Urban, 2015). As a result the perspectives of older generations will no longer serve as viable guidance to the youths born after 2000.

## Conclusion

Washington State can prevent potential economic stagnation and workforce obsoletion through investing government funding into crowdsourced educational platforms and learning tools. Crowdsourced education platforms, a technology sector that puts profits directly into the labor forces hands, will bring public and private money to a common objective; Washington state’s GDP will reflect that investment with much higher levels of return than our current budget structure.

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