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Outsourcing is Positive for Software

Outsourcing is something that cannot be avoided in business and specifically the software profession. It is a collective action performed by software developers, business owners, and governments. These participants in outsourcing have different needs and requirements for the outsourcing to be successful. There are downsides to outsourcing that affect not only the participants but all the citizens of a country and other software professionals. For most non-software companies, outsourcing makes sense from a strategic outlook because it allows companies to focus on other problems and cut costs. Outsourcing is efficient, good for software as a whole, and is ethical for all people involved.

According to Entrepreneur.com accessed on April 23, 2018, outsourcing is the practice of having certain job functions done outside a company instead of having an in-house department or employee handle them; functions can be outsourced to either a company or an individual. There are different types of outsourcing namely on-shore, near-shore, and off-shore. On-shore outsourcing is hiring a company in your home country that may in turn hire off-shore engineers, but all interaction and communication is done with people in your home country. Near-shore outsourcing is very similar except the firm being contracted is in a country within 1-4 time zones of the company buying the software development. Off-shore outsourcing implies contracting a company that is geographically distant or "off-shore". All three of these terms will be simplified into the concept of outsourcing for the rest of the paper.

Outsourcing means they are freer to move from job to job, and ultimately work on projects they like for the individual software developer. Also, software developers working on a contract basis where they are constantly being evaluated and graded against other options is great for software as a whole. This puts the emphasis on work getting done for the lowest price. Contrast this to the medical profession, and doctors specifically, who will only practice medicine in the hospital where they are insured and licensed. Those doctors also charge an abhorrent amount to pay for things required by the government and pass those charges on to patients/customers. Also, doctors may take advantage of the fact that their position is hard to "outsource." This is by design. Doctors make patients fill out a lot of forms and try to trap patients into buying care from their practice rather than using their knowledge to solve patient's problems. Quality software consultants focus on overall objectives while adhering to standards and ensuring quality. Adhering to standards and ethics can be seen by the software developer being ethical and following the Code of Conduct from IEEE/ACM. Outsourcing allows for a more open marketplace with less regulations resulting in better outcomes for individual software developers.

For business owners that are not in the business of software it is unlikely that they will be able to design a spectrum of working software for their business's needs. Thus, it is wise for them to outsource software development while keeping focus on their core businesses competency. The biggest decision for business owners in the outsourcing process is the choice of provider or outsourcing company they hire. Business owners not competent in software are advised to hire a consulting company to evaluate and recommend a software development company that best suits the work to be done and budget.

Governments play an undeniable role in business and thus software outsourcing too. Issues involving governments include taxation, employee benefits, and protecting people

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against malicious actors. More broadly software outsourcing involves people writing code and physical computers. Governments involvement should be focused on protecting the people that are doing the outsourced work in that governments country; essentially not allowing slave labor in their country. Governments do not owe a job or anything else to the citizens in its country therefore software outsourcing should be totally legal in the United States of America. Private companies are usually not totally responsible for taking care of their electric, satellite, and other infrastructure hence governments influence is also felt here. State sponsored colleges are impossible to neglect also as a country's politicians may decide to invest in its country's brains rather than natural resources. Some countries such as India, China, or Malaysia are known for their high-quality work due in some part to state sponsored education. Any taxation is theft. Governments should not be able to tax businesses for any reason, and this paper will not delve into taxation because this paper will not go down the rabbit hole of laws.

Laws and government are beyond the scope of this class and paper, however ethics are not. In accordance with Act Utilitarianism, the total increase in good of outsourcing (getting more work done as a whole humanity) increases the total good of the world even for those who would have gotten the original software development job. This is because the job getting done for the least amount of resources the fastest will help the world the most. Also, the software professionals that do not get the job are getting value because they are getting feedback telling them to work harder and make different decisions in the future to get jobs. Secondly, if we imagine everyone ethically outsourcing there are no logical contradictions, so it passes the ethical test of Kantianism. Third, the effect of everyone outsourcing is a more efficient world where more software gets written for more diverse businesses. This is a positive for all parties involved and shows it is ethical according to Rule Utilitarianism. Finally, having software work done by an outside company is being socially accepted because of the resulting benefits to society. In general, a lot of products are made overseas, and more and more software are being made off-site also. This shows that society is accepting that a global economy and outsourcing produces more good for all of humanity than it harms any individuals. Outsourcing abides by Social Contract Theory. Hypothetical scenario: you want to a pizza for dinner and have two options. The first option is walk to GroceryStore1 a half mile away and pay $30 for a 9" pizza, travel back to home carrying pizza, use oven and utilities that you pay for to cook pizza. The second option is to order a pizza from PizzaStore1 30 miles away in neighboring town, PizzaStore1 will deliver the pizza to your doorstep for $25, and the quality will be better than GroceryStore1's pizza. Both options are ethical. Any logical person thinking rationally will *outsource* their pizza to a store 30 mile away. This is an oversimplified example, but it does show the core actions of outsourcing are simple, logical, and ethical.

The advantages of outsourcing outweigh the disadvantages. Perhaps the biggest advantage of outsourcing for a business is saving money. Companies that are proficient in software development may not be proficient in printing, hiring, accounting, and thus outsource those tasks. By the same logic companies whose main focus is in other domains will benefit from outsourcing software development. A problem with hiring in-house software developers for business owners is the same as hiring any full-time employees; it hurts the profit of the business by adding expenses. Instead of hiring workers that the business owner doesn't know how to manage and pay for their employee benefits the business should outsource their

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software needs to countries with cheaper labor. They will not have to pay employee benefits. For USA companies, they can get a lot more labor spending USD ($) in foreign countries than spending that same dollar in the USA. The quality of work is very similar if one hires the correct outsourcing company, and consultants are paid on a per task basis not annual salary. The savings in cost are clear. Secondly, specialized experts may be needed that a company does not have access to. Outsourcing allows specialized tasks like data entry to be done with more efficiency and thus cost savings. Finally, outsourcing presents a solution to the problem of irregular work flow. Often software needs to be done quickly, and then once in maintenance phase does not need as much work. Being able to hire developers only for the time they're needed (outsourcing software developers) helps business owner use their resources efficiently. Outsourcing helps companies meet deadlines.

Outsourcing, like everything, has a dark side also. Sometimes deliverables are not delivered on time. There is a non-official "4x rule" which states it will take about four times as long to complete the project than what you are quoted at. Miscommunication, inaccuracies in implementation, and communication lag are all causes of time delays. Thirdly, one has to be concerned about intellectual property and privacy concerns. For example, if one outsourced software development work to a company in India, one of the contracted developers could go rogue with the code and steal the project! How does a business owner in the United States of America take legal action? A level of trust between the two companies involved is essential and developing strong legal agreements before work starts is the best place to begin. The very almost equally important place to begin is an ironclad requirements analysis document!

The basic principle of outsourcing is simple. Someone can offer a service for cheaper cost, done faster, and of the same or better quality. It is not even a choice; outsourcing is the right thing to do! It provides a more decentralized framework that makes getting software development done faster, easier, and with less cost. Sure, there are some complications such as physical distance, spoken and written language, and culture, but it is clear that connecting more people by outsourcing and making the world more efficient is correct. It is up to the people that participate in outsourcing to be ethical and treat all fairly.