In recent times there has been a lot of emphasis on artificial intelligence (AI) and the potential impact that it could have on the various fields of the tech sector. There have been large scale questions about the potential positive and negative effects of using AI tools in the process of developing software, and if the use of those same AI tools would eventually render the role of the traditional programmer into obsolescence.

Using the functionalist perspective, a sociologist might ask themselves a few questions about AI in the programming field and the potential impact on the future of software development. The central question would revolve around how the increased integration of AI tools into the field of programming shapes the future of software development? What would the potential benefits and hazards of this merger be for both the Information Technology (IT) industry and our society as a whole?

As AI becomes more essential to automating routine tasks such as testing and debugging, and code optimization, how does the functional specialization and efficiency of those AI tools result in greater stability and contribute to a more streamlined and robust software development system?

Those questions do not even consider the programmer’s role in the industry. You could go on to ask. How could the increasing reliance on AI-driven tools effect the roles and responsibilities of programmers within the IT industry, given the benefits of AI in software development such as error reduction, code optimization and improved problem-solving capabilities? What function would this shift serve in general society?

Considering the rapidly evolving nature of technology within society we must contemplate the future and consider how these changes will not just change the programming field but also influence the interconnectivity of our digital world. Will the use of AI lead to higher unemployment rates among software developers or will it cause a pattern of specialization and diversification within that market, contributing to the overall functionality and stability of the IT industry?

**Response 1: to Brittany**

This is an excellent question that immediately put me in mind of multiple situations where large corporations such as Facebook and Google were forced into more transparency about their data collection practices, data privacy, and handling of political advertising. Through social media pressure and public outcry these corporate giants started to disclose how their algorithms worked and by publishing tools to help the public see how they functioned.

I think society tries to maintain an equilibrium, and public outcry like in your example is a great way to voice their concerns and hopefully that would lead to the companies within the industry to adapt their policies and practices to align better with public expectations. But it is also important to keep in mind that the power of social media can be used in other ways also such as the rampant cancel culture that we have seen in the recent past. Granted some of it is earned but some of it has happened for no better reason than an influencer with a large following did not like something.

**Response 2: to Tony**

Drones can be awesome assets in both a military and civilian role.

These are awesome questions in my mind. From the military perspective as an army veteran, we liked having the drones in the sky. There was a certain sense of security to knowing that there was at least one in the sky above me while on missions, to provide fire support or just to keep an eye on our surroundings and give us a few vital moments of advance warning while on patrol.

In symbolic interactionism I can see the public not having the same reaction, as drones could be construed as an invasive technology, as the possibility of the loss of privacy becomes a reality in societies collective conscience. There could be many reactions to the use of drones from simple curiosity to the assumption that the operator is doing something illegal or immoral. With the introduction of regulations and laws that define what a drone operator can and cannot do I am fairly certain that public opinion would start to see the advantages over the disadvantages of drones.

I think that the largest take away for me from the reading of the past couple of weeks came when I was doing the required reading for last weeks quiz “Sociology in the Era of Big Data: The Ascent of Forensic Social Science.” As I was reading this document I kind of got the impression that the field of Sociology is concerned about getting replaced or in the least getting their part downplayed by the field of engineers. There are many things in the reading that would support this such as engineering having an emphasis on applied solutions which in turn plays to businesses concerns for profit. Funding and granting agencies tendency to provide more funding to engineering projects and training than they do for the social sciences. Finally, the reputation of engineers to work quickly and efficiently to develop solutions contrasts considerably with the theory-focused approaches of the social sciences which often take more time to yield results.

I do not believe that the social sciences have as much to worry about as that text would lead you to believe. Engineers are very good at taking in data and creating algorithms to extract all kinds of trends and reports, but they sometimes are not all that great at explaining the meaning behind the data patterns. Social scientists, however, are very good at doing this. They can offer up insights as to why certain social phenomena occur. A couple of real-life examples of what is possible when engineers and social scientists collaborate are.

Healthcare analytics, this is where the two disciplines have teamed up and analyzed large datasets of electronic health records and other patient data which in turn led to the development of some predictive models for disease outbreaks, and treatment effectiveness.

Predictive Policing, engineers and social scientists have developed predictive models for analyze big data to identify areas within a city that have a higher likelihood of criminal activity. Allowing for a more efficient and effective use of the cities limited law enforcement resources.

This is not to say that the social sciences have nothing to worry about, but it is an indication that while engineers excel analysis and algorithm development, they do not always provide the vital role of interpreting the actual meaning behind the data patterns. Current and future collaborations between engineers and social scientists will likely be fruitful ones.

**Response to Lukas Harlow:**

That is a very good takeaway Lukas. I also was kind of shocked by the sheer amount of data that we collected. So much so that there are many times where we are literally drowning in it. Our society used to collect data with a specific purpose in mind, but data collection methods employed today are much broader and seem to rarely have a purpose in mind when the data is collected. This can be good and bad. It is good in that it allows for more exploratory analysis, but it can also lead to data being collected and stored for absolutely no reason.

I can understand and share your concerns with the collection of millions of data points and that data not being properly analyzed. As scary as the “only getting one side of the story or single perspective” concept is, the concept of millions of data points being “analyzed” into a narrative for the benefit of an entity regardless of it’s validity terrifies me more mostly because we as a society do not seem to be big on fact checking and will take up a cause in a minute if it hits all the right “buttons.”

**Response to Brittany:**

It is interesting that you would mention the questions that CDS asks about the morality of collecting data without an individual’s consent informed or otherwise and then the security of these data repositories. It literally brings to mind the video that the BAS IS cohort had to watch for IS337 Information Assurance I, which was the congressional testimony of former Equifax CEO Richard Smith for the data breach that happened in 2017. As I listed to the testimony, I was kind of shocked at how much information that Equifax gathered had nothing to do with generating a credit score for the consumer, which I as a consumer didn’t even realize that they had. When asked by multiple representatives about who was responsible for security of the data that was in Equifax’s possession the CEO stated that it was the responsibility of the consumer to secure their data which gives some validity to your point that at least the security of these repositories is sometimes not existent in that the businesses that gather this information don’t want the responsibility of securing it and we the consumer can not secure because we don’t always know it is out there.