**Module 2: Option #1**

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**AI Integration into Society**

There are many challenges that have the potential to be most impactful on society while pursuing and using AI. The first question that must be asked during this discussion would involve ethical challenges that are presented when developing/perfecting AI. There are many questions regarding the challenges surrounding the economic impact of AI that will be asked with the goal being able to determine the most impactful on society. Next, governance of AI is already being discussed throughout the common person interested in AI, but what should be in place in order to mitigate many of the potential hazards that come along with progress? Finally, there is a significant potential for the economic impact of integrating AI into society, but how will people respond and when will they recognize the changes are taking place?

**Challenges**

“Ethics are the moral values of human behavior and the principles which govern these values” (Das & Sil, 2017). The entire concept of this statement revolves around human behavior, since the goal of AI is replicate human behavior, applying ethical concerns to AI is relevant. A couple of questions must be presented before proceeding, who will be held responsible for the decisions that are made by AI? If/when AI becomes sentient, will the same party ultimately be responsible? The question to the former seems simple, the creator should be held responsible. Although, for many AI projects, they are trained using datasets. What happens if these datasets are biased? Would we then place fault upon the person/people that created the dataset? Should all datasets then be regulated to ensure there is no bias present, if so, then who will ensure that they are regulated? Perhaps an AI is created to learn from the world without a set dataset and perhaps this AI only learns the unethical behavior from everything they see, should this AI be held to the same standard as humans, if so, then would we have to re-evaluate many definitions and laws? Each question seems to bring more questions, and when an answer is presented, it leads to further questioning. The intent of these questions is to paint the picture that ethics in AI is uncertain presently. As we proceed to other challenges with ethics in AI, we must look at the datasets that are used to train AI, where is the data coming from and is it from sources that have received consent to use the data? Additionally, datasets may have unintentional biases. For example, in machine learning medicine, if a dataset does not have enough diversity, health disparities may be intensified (Vayena et al., 2018). Considering the disagreements that we have regarding ethics, ethics regarding the basics of AI are still in flux, when AI is further evolved, there will be increased debates about how to move forward with AI. Since much of society wants to advance, but much of society is also fearful of the unknown, this may cause tension when advancement is even closer, due to this idea, the ethics of AI will be the most impactful on society.

**Governance**

Over patrol of any scientific research can hinder the development, but with no governance there can be unforgiving repercussions. There is also the issue of liability for actions taken by AI, by fully placing the blame on the developer, there will be a lack of promotion for innovation, whereas the opposite is also true, without appropriate liability then there is free reign to create anything without regards to human life (Zekos, 2021). That was one of the more serious implications that could take place without appropriate governance, but there will have to be specific sub-sets of governance for each field, even within those there will most likely need to be smaller entities to ensure appropriate regulations exist. Presently the regulations in place are too broad to “effectively regulate the technology” (Taeihagh, 2021). Governing bodies will be required within each specific field that the technology will be used, if the regulations remain as broad as they are, there may be a regulation in place that may prevent AI from effectively performing the duties they were created to perform. For example, if a regulation were to be created that forbade AII from harming humans, then an AI surgeon wouldn’t be able to perform surgery, or an AI in law enforcement may not be able to safely apprehend a fugitive. Moving forward, not only should there be a main governing body that branches out into specific fields, but the governance in place should be adaptive (Taeihagh, 2021). For the governance to be adaptive, the laws in place for AI must have periodic reassessment to be flexible and proactive for the current and future developments of AI. Additionally, as the laws are set in place, there needs to be public interaction to reduce the uncertainty they may feel about AI and potentially learn different insights that would allow for further proactivity to prevent potential disasters.

**Economic Impacts on the Average Person**

When AI is ready to be rolled out for commercial use, the most impactful economic change will be the replacement of humans with AI in many different jobs. If many jobs are replaced by AI, then where will that leave those that are unable to work? Assuming that much of the population will end up not working, there will be a need to restructure the entire economy, as far as what/if people are paying for goods and services, or how payments will change. The restructuring of the entire economy will be quite apparent to the entire population. Although this reality is not near yet, it is something that should be considered. It can be worrying and cause uncertainty among the entire population, and with that uncertainty there will be discourse if the potential problem isn’t discussed and presented with a solution early enough. The initial impacts of AI will not be recognizable to everyone. This is due to everyone’s capacity to grasp potential future outcomes. There are many people in the world that do not pay attention to advances in science, there are also many people that don’t care. The simplest economic impact that will be easily recognized by the average person will be the widened gap between countries and workers. People that are working routine jobs that don’t require much human thought or creation will probably be replaced AI, when that occurs, everyone will start to notice that AI is advancing successfully. Between countries, those that early adopters and continue to fund research into AI will most likely be more successful and as AI gains traction across the world, the early adopters will already be far ahead of others, which will allow them to realize the potential sooner. The economic impact that many will not recognize initially will be the adoption of AI. Many people will only recognize that there is now an extra tool that can help me increase in efficiency. Additionally, the impact of the future potential growth will not be recognizable to many due to the fears associated with AI. Future potential may be stifled as soon as AI starts replacing jobs, there may be significant backlash that will not allow for progress.

**Conclusion**

To conclude, the prospects of AI are significant, though there are many obstacles that must be overcome to realize the potential. For us to answer the question of challenges that will be most impactful on society, there are several other questions that need to be addressed. Yet, overall, the most impactful will be ethical concerns that revolve around AI at this point in time. Governing entities have a key role in the development of AI, ranging from the structure of the governing bodies to the adaptable approach that must be used to be able to rapidly change with the growth of AI. Finally, there are many aspects of the economic impact that affect society, but for the average person there is only a select few things that will be noticeable initially, while there are also impacts that will affect the populous more severely, especially if appropriate actions are not taken prior to the potential future outcomes.

**References**

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