**1-3 Short Paper**

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**Real World Problems and AI**

Time management is a complex thing that a single factor cannot explain why it is a challenging skill to accomplish. The world is filled with distractions, including stress, noise, multitasking, and technology. Time management is a problem I face in my daily routine to maintain a healthy life that includes working out, studying, socializing, cleaning, and other contributions to a typical lifestyle. Nonetheless, I struggle to determine priorities, and as a result, sleep is always the option to sacrifice to fulfill daily activities, leaving me to become exhausted and burnt out with the pondering thought, “Am I doing too much?” Times have changed, and technology has advanced immensely with artificial intelligence (AI). AI would be a massive influence in my life because it would help me balance my life and allow me to delegate and make better decisions to meet my goals and deliver high-quality work.

**Solution to Real World Problems with AI**

Countless AI techniques can be applicable to solve issues with time management by using machine learning (ML), natural language processing (NLP), and deep learning. With ML, AI could automate time tracking and identify patterns within the data. Once there are results, the AI can provide better recommendations to maximize time efficiently to make the user more productive. Also, NLP would benefit with time management because it allows users to input information hands-free. Suppose a user, while feeding their pet, needs to know the dates of upcoming events. With the help of virtual assistants, such as Alexa, the user can use NLP to determine approaching occasions hands-free while focusing on feeding their dog. Lastly, according to Business Insider, “Deep learning or “unsupervised learning” is the next generation of artificial intelligence that lets computers teach themselves.” (Business Insider, 2017, para 9). Having an AI use deep learning techniques with computer vision can help predict a user’s progress to determine what lifestyle choices need to be adjusted. Using techniques such as ML, NPL, and deep learning, AI would assist in time management so that users can be motivated and productive.

**Necessary System Components**

Many necessary system components, such as hardware, software, and services, should be included. Hardware is needed for sufficient storage to hold all client data, calendar events, and other personal information. With this vital information, AI can recommend proper decisions to give users adequate time management. Having software that can enable calendar integration can improve one's workflow. While utilizing calendar integration software, users can feel confident when scheduling information, ensuring everything is up to date, and ensuring all appointments and other events are unified across a user's itinerary. Services such as a cloud service for data management would also be helpful for their scalability and easy access. Clients should be able to log information wherever and whenever possible to make it easier to identify trends, as well as optional collaborations to build an accurate assessment. Without hardware, software, and service components, AI would be inefficient when managing time.

**Potential Ethical Concerns**

Some of my biggest ethical concerns that need to be addressed when utilizing AI with time management are data privacy, dependency on technology, and my well-being. According to Bebo, "Time tracking tools often collect and store sensitive data about individuals' work habits, activities, and productivity." (Bebo, 2023, para 10). Since all personal data is online, there is always the risk of unauthorized users accessing sensitive personal data. Industries must ensure security is adequate to protect information from being breached. Another issue that can occur is feeling over-reliant on AI. Abbas argues, "There are inherent risks, including losing human control over AI systems. When AI can make decisions independently, predicting their actions becomes challenging, raising ethical concerns regarding accountability for their choices and actions." (Abbas, 2023, para 15). Over time, AI algorithms can become more sophisticated, making independent decisions recommending unexpected or dangerous outcomes. Suppose a user followed the recommendation and was potentially injured. In this case, who should take accountability for these decisions? Lastly, another ethical concern would be how does AI balance recommendations with mental health and well-being? Suppose the AI provides frequent recommendations to stay productive, disregarding the user's need to relax, which may push the user to excel in their stress or anxiety. Industries must ensure negative impacts do not apply to one's health, or customers may feel inadequate. Data privacy, dependency on technology, and my well-being are essential when focusing on potential ethical concerns because they may lead to inefficient productivity.

**References**

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