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SNHU

CS-370-H5862 Current/Emerging Trends in CS

1-3 Assignment: Short Paper

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Short Paper: Kitchen solutions that utilize artificial intelligence

The topic I’m going to explore is the use of AI to assist in meal planning quickly in the kitchen. There are various problems that come to planning meals that can take a considerable amount of time to solve such as food allergies, what a person has on hand, how much time they can put into making a meal, and what they currently own to prepare a meal such as kitchen implements. All of these problems could be solved with a variety of different Ai techniques that would be easily incorporated into hardware that homes already have easy access to. Through this though this could provide a variety of different ethical concerns especially considering the amount of personal information that a system like this could collect. With kitchen Ai being easily accessible there are a variety of different solutions required to help a smart home work.

Various Ai techniques could be used in tandem to assist in the kitchen such as some type of Ai automation to assist in the processing of vegetables. With there being a variety of different shapes and different ways to cut an Ai would need to be able to identify what a recipe calls for and how to process the different vegetables this could be solved with a robotic arm and a smart eye. An Ai to take and process language to take input from a user would be required to collect information from a user such as any food allergies or if they have any likes or dislikes with food. This is already available in at least a quarter of current homes according to Deyan G. of TechJury with Google Home or Amazon Alexa. (G., 2022) Finally a smart eye would be required to take stock of a kitchen and its ingredients to craft recipes or know what a user has on hand.

The hardware required for this kind of Ai integration in the smart kitchen would all be available today. There are currently robotic arms, these would need to be programmed to do different kitchen repetitive motions such as chopping or stirring. Next a smart eye would be required to be pointed in places that stock is either added or removed such as in a refrigerator or in a pantry and identify components it is currently processing with the robotic arm. Finally, a system would be required to drive and take input from a user, this could be easily incorporated into something such as Amazon Alexa or in Google Home system making these viable to users as these systems are easily accessible and incorporated into most current homes.

With these different integrations these could cause some ethical concerns. With Google Home and Alexa Smart speakers currently having ethical concerns with what is being already recorded it would ultimately be up to a user to use these services and if they trust either of these tech giants with their personal information. (Allison, 2021) Additionally, with using a robotic arm especially with sharp instruments there have already been a variety of different injuries or deaths caused in the medical field with much larger and much more fine-tuned machines. (Corbett, 2020) Ultimately this again would be up to a smart kitchen user weather they would want to incorporate this into their kitchen and risk nefarious use by someone potentially hacking this device and injuring someone really the ethics.

# References

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all boils down to how much of your information you want to share and how ethical the companies using this information truly are and if you want to trust a device that could potentially be hacked and used to spy or potentially murder someone.