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Assignment 03 – Analysis of "2057 - Michio Kaku - The Body (Ep. 1)" and AI’s Impact on Healthcare

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**Technological Predictions vs. Current Reality**

The futuristic technologies in Michio Kaku’s “The Body”, such as brain chips and AI-driven surgery take the point of the revolution of the healthcare industry. Although fully autonomous surgery systems remain theory, robotic assistance structures like the da Vinci Surgical System, are being utilized in hospitals around the world. With these systems, surgeons can perform precise, minimally invasive surgery, and though they are not fully autonomous, AI is a large part in aiding future goals. Likewise, with the advancement of 5G technologies, surgeons are able to perform procedures remotely with telesurgery. AI for diagnostics and personalized medicine is already a part of current patient care with applications like Google Health, which analyze data assisting in diagnosis of conditions. While AI has not been completely realized like the video, the technologies are catching up.

**AI’s Current Impact on Healthcare**

AI has already made tremendous advancements in the healthcare industry in other areas such as diagnostics and personalized care. Wearable AI based devises like Apple Watch and Fitbit, offer real-time patient monitoring, which can lead to early detection and personalized insights. In personalized medicine, AI can analyze data, tailoring treatments, helping drug companies predict how drugs will interact with the body and given conditions as in Michio’s vision of personalized healthcare.

**Ethical and Social Implications**

Patient autonomy is becoming a major concern as AI moves forward in the healthcare industry, in that these systems control more decisions, patients may lose the ability to make truly informed choices about their own treatment. An example of this would be brain chips, as the question of the influence on human behavior and the treatment of neurological disorders could quickly become distorted. Data privacy also becomes a concern, as these models and systems rely on massive amounts of personal data to function properly and securing it is a significant challenge. Misuse of this information could have dire outcomes for patients. Another issue would be the cost to access these technologies. With the advancements, the price tag will grow as well, in turn widening the gap of actual availability to the masses.

**Conclusion**

While the predictions in 2057 portray a very clear vision of the future, some of the tech is still evolving. There have been major pushes in areas like surgery and diagnostics, but we are still at a point that it still needs human interaction to properly operate. With that, these powerful systems need to be implemented responsibly, keeping patients safe.

**References**

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