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Malaybalay City, Bukidnon 8700 Tel (088) 813-5661 to 5663; TeleFax (088) 813-2717, <u>www.buksu.edu.ph</u> Educate Innovate Lead

#### College of Technologies

#### IT 111 - Introduction to Computing

Activity: Cross-Analysis on Emerging Trends in Cloud Computing, Artificial Intelligence, and the Internet of Things.

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#### **Artificial Intelligence**

AI is different from the two trends by simulating human intelligence to make decisions, while IoT focuses on connecting devices for data exchange, and cloud computing provides the infrastructure for storage and processing. AI is unique by its ability to analyze and interpret data to make independent decisions.

Kumar, A., Singh, R., & Kaur, R. (2020).

- Data Management
- Data Analytics and Insights
- · Smart Manufacturing

- Real-time data
- Pattern Recognition
- Data Generation and Analysis

#### **Cloud computing**

#### Cloud computing

provides a scalable,
cost-effective, and secure
infrastructure. AI focuses on
intelligent decision-making,
while IoT connects devices
for data collection. Moghadamnia,
E., & Hasan Abadi, M. (2023).

- Real-Time Insights and Automation
- Machine Learning Deployment
- Security
   Enhancements
- Real-Time Monitoring and Control
- Data Transmission and collection
- Security and Privacy

### **Internet of things**

The uniqueness of

IoT lies in its role

connecting devices and
enabling real-time data
exchange, which makes it
quite different from AI
focused on human intelligence
and decision-making and
cloud computing making an
infrastructure for storing and
processing the data.

(Moghadamnia, E., & Hasan Abadi, M. 2023).

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#### **EXPLAINATION**

The Venn diagram shows how Artificial Intelligence (AI), Cloud Computing and the internet of Things (IoT) work together in different areas like healthcare, the military, education, and business.

In healthcare, AI helps doctors analyze patient data to make better diagnoses and treatment plans. Cloud Computing gives a safe place to store this information, while IoT devices like wearables keep an eye on patients in real-time. Together, they improve patient care by allowing for quick responses and personalized treatments (Kumar et al., 2020).

Moreover, for the military, these technologies boost efficiency and help with decision-making. AI can sift through large amounts of data from IoT devices, like drones and sensors, to give real-time updates about what's happening on the battlefield. Cloud Computing helps store and analyze this data, so responses to threats can happen fast. For example, AI can help spot targets and suggest actions based on live information (Military Embedded Systems, 2022).

In education and business, these technologies are also super helpful. In schools, AI can make learning more personal by looking at student performance data stored in the cloud. IoT devices can track things like attendance and engagement as they happen. In the business world, companies use AI to analyze data and improve customer service and efficiency. Cloud Computing helps businesses grow quickly while handling large amounts of data from IoT devices that track everything from stock levels to how productive employees are.

To sum all up, Cross-Analysis on Emerging Trends in the teamwork between AI, Cloud Computing, and IoT is changing many areas for the better by making things more efficient and helping with decision-making.

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#### **REFLECTION**

In healthcare, we see how AI helps doctors analyze patient data to make better diagnoses and treatment plans. Cloud Computing provides a secure spot to store this information, while IoT devices, like wearables, monitor patients in real-time. Together, they enhance patient care by enabling quick responses and personalized treatments (Kumar et al., 2020).

For the military, these technologies improve efficiency and aid decision-making. AI can process large amounts of data from IoT devices, such as drones and sensors, to provide real-time updates on what's happening on the battlefield. Cloud Computing helps store and analyze this data, allowing for fast responses to threats. For instance, AI can identify targets and suggest actions based on live information (Military Embedded Systems, 2022).

In education and business, these technologies are also incredibly useful. In schools, AI can personalize learning by looking at student performance data stored in the cloud. IoT devices can track attendance and engagement as they happen. In business, companies rely on AI to analyze data, which improves customer service and efficiency. Cloud Computing allows businesses to grow quickly while managing large amounts of data from IoT devices that monitor everything from stock levels to employee productivity.

All in all, the teamwork between AI, Cloud Computing, and IoT is making a positive impact across many fields by boosting efficiency and improving decision-making.

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#### **REFERENCE**

- Moghadamnia, E., & Hasan Abadi, M. (2023). Convergence of artificial intelligence and **cloud computing** in IoT innovation with a decision-making approach. AI and Tech in Behavioral and Social Sciences, 1(4), 26-32. https://doi.org/10.61838/kman.aitech.1.4.5
- Kumar, A., Singh, R., & Kaur, R. (2020). "Applications of **Artificial Intelligence** in Healthcare: A Review." *International Journal of Computer Applications*, 975(8887), 1-5.

  Military Embedded Systems (2022). "IoT, AI, and the Future Battlefield." Retrieved from <a href="https://militaryembedded.com/ai/deep-learning/iot-ai-and-the-future-battlefield">https://militaryembedded.com/ai/deep-learning/iot-ai-and-the-future-battlefield</a>
- Zhang, Y., & Wang, Y. (2022). The role of **IoT** in real-time data exchange and its impact on decision-making processes. Journal of Internet of Things, 15(2), 45-60. <a href="https://doi.org/10.1016/j.iot.2022.100123">https://doi.org/10.1016/j.iot.2022.100123</a>
- Zharovskikh, A. (2024, August 22). How artificial intelligence will change decision making. InData Labs. https://indatalabs.com/blog/artificial-intelligence-decision-making