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IT/CC 111 – Introduction to Computing

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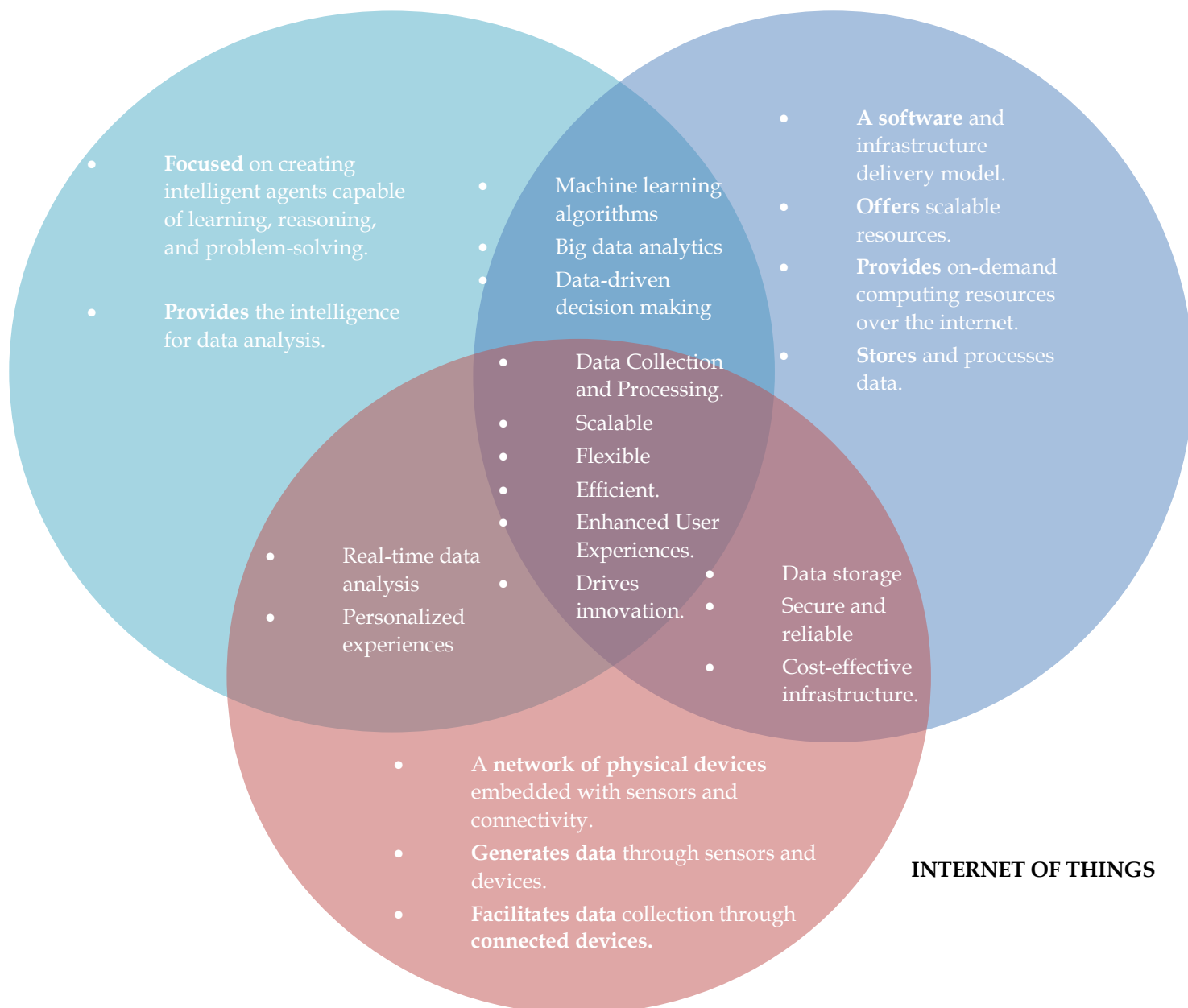
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Activity: Cross-Analysis on Emerging Trends in Cloud Computing, Artificial Intelligence, and the Internet of Things.

ARTIFICIAL INTELLIGENCE

CLOUD COMPUTING



Explanation and Reflection

Cloud Computing is primarily a software and infrastructure delivery model, providing on-demand computing resources over the internet. The Internet of Things is a network of physical devices embedded with sensors and connectivity, enabling data collection and exchange.

Artificial Intelligence is a field of computer science focused on creating intelligent agents capable of learning, reasoning, and problem-solving.

IoT and CC

IoT devices generate massive amounts of data that can be stored, processed, and analyzed on cloud platforms. Both are secured and reliable, they are also both cost-effective.

AI and CC

Cloud computing provides infrastructure and computational power needed to train and deploy AI models. Both have machine learning algorithms, need big data analytics and are data-driven decision making.

AI and IoT

AI can analyze the data collected by IoT devices to extract insights, automate tasks, and make intelligent decisions. Both are dependent on real-time data analysis and can also provide personalized experiences.

All technologies heavily rely on data and connection as information is all over the internet. Each has their own strengths and with cooperation between these technologies, creates a new gateway of possibilities for technology and interconnectedness of Information and hardware. They can all scale to accommodate increasing demands and data volume. They are also driving innovation and creating new opportunities across various industries.

Understanding these three Cloud computing, AI, and IoT are transforming industries through shared principles of data-driven operations, scalability, real-time processing, and interconnectivity. These technologies have already greatly impacted the way technology has evolved and is also the reason why new tech is also being developed. Cloud computing offers scalable resources, AI provides the intelligence for data analysis, and IoT facilitates data collection through connected devices. Through cross-analysis of emerging trends, these three areas in technology support applications in many and various fields like healthcare which improves patient care through remote monitoring and data-driven insights. Manufacturing and Agriculture which increases crop yields and optimizing resource usage, and Cities which optimizes urban planning and resource management, enabling real-time insights, automation, and optimized decision-making.

These technologies collectively empower businesses to innovate, enhance efficiency, and improve customer experiences, leading to smarter, interconnected solutions across sectors.

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