



## BYTE QUEST

Vasavi College of Engineering

Department of Computer Science and Engineering

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Byte Quest is the article published by the CSE dept of Vasavi College of Engineering regarding the latest innovative Technologies and Software that have been emerged in the competitive world. The motto of this article is to update the people regarding the improvement in technology. The article is designed by the active participation of students under the guidance of faculty coordinators.

□ Good, bad or indifferent if you are not investing in new technology, you are going to be left behind.

-Philip Green

□ Once a new technology rolls over you, if you're not part of the steamroller, you're part of the road.

-Stewart Brand

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## TYPES OF BLOCKCHAIN

### PRIVATE BLOCKCHAINS:

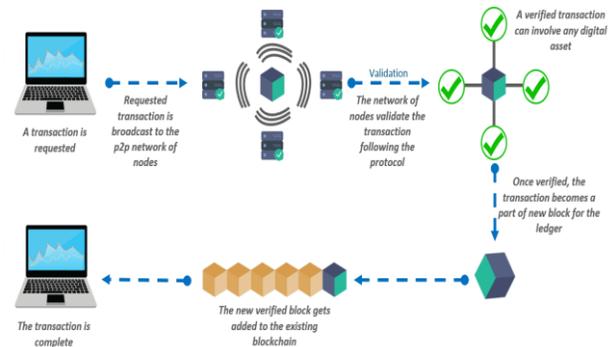
Conversely, a private blockchain network is where the participants are known and trusted: for example, an industry group or group of companies owned by an umbrella company. Many of the mechanisms are not needed or rather they are replaced with legal contracts. This changes the technical decisions as to which bricks are used to build the solution.

### PUBLIC BLOCKCHAINS:

Ledgers can be public in two senses

1. Anyone, without permission granted by another authority, can write data.
2. Anyone, without permission granted by another authority, can read data.

Usually, when people talk about public blockchains, they mean anyone can write. Blockchain demonstrates potential to be used in many different fields of financial and non-financial..



ANUSHA (CSE –A 2/4)

## HOLOGRAPHIC TECHNOLOGY



Holography is a photographic technique that records the light scattered from an object, and then presents it at three-dimensional level. Holograms of varying forms have appeared over the years, including transmission holograms, which allow light to be shined through them and the image to be viewed from the side, and rainbow holograms, like those used on credit cards and driver's licenses for increased security.

The development of hologram technology began in 1962, when Yuri Denisyuk, of the Soviet Union, and Emmett Leith and Juris Upatnieks, at the University of Michigan, developed innovative laser programs that recorded objects in 3D. They recorded on silver halide photographic emulsions at the time, but the clarity of the objects was far from perfect. New methods have improved holograms over time. The “holo” in Microsoft’s HoloLens headset is a reference to holograms. And when we think of these future AR holograms, we think of headsets, goggles such as HoloLens or smartphones running applications created with Apple’s ARKit or Google’s ARCore.

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## MULTI MODAL LEARNING

Deep learning is a new area of machine learning research that imitates the way the human brain works. It has a great number of successful applications in speech recognition, image classification, and natural language processing. It is a particular approach to build and train neural networks. A deep neural network consists of a hierarchy of layers, whereby each layer transforms the input data into more abstract representations. Deep networks have been successfully applied to unsupervised and supervised feature learning for single modalities like text, images or audio. As the developments in technology, an application of deep networks to learn features over multiple modalities has surfaced. It involves relating information from multiple sources. The relevance of multi-modality has enhanced tremendously due to extensive use of social media and online advertising. Social media has been a convenient platform for voicing opinions from posting messages to uploading a media file, or any combination of messages. There are a number of methods that can be used for multimodal deep learning, but the most efficient one is DeepBoltzmann Machine (DBM). The DBM is a fully generative model which can

be utilized for extracting features from data with certain missing modalities. DBM is constructed by stacking one Gaussian RBM and one standard binary RBM. An RBM has three components: visible layer, hidden layer, and a weight matrix containing the weights of the connections between visible and hidden units. There are no connections between the visible units or between the hidden units. That is the reason why this model is called restricted.

