



Public Notice: Dubai Expo 2020

The trading community and the public in general is informed about the International Expo that will be hosted by United Arab Emirates-Dubai from 1st October 2021- 31st March 2022 under the theme: **Connecting Minds, Creating the future.**

The Dubai Expo 2020 provides opportunities for the Lesotho Private sector to establish businesses in Dubai after the completion of the Expo for a period of two years; in which Dubai will be offering the following benefits: Free workspace and free visas.

These will benefit investor under the following priority sectors:

- Logistics and transport
- Travel and Tourism
- Construction and real Estate
- Education
- Internet of things
- Artificial Intelligence
- Big Data
- Block Chain
- Other technologies that support these industries.

The organizers have established a platform, "Scale2Dubai" for registration of the private sector members who have interest in this opportunity. Through this gateway, members of the private sector will access the website: <https://pass.expo2020.ae/expressionofinterest>, where they can register their businesses. Registration is already open.

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INTERNET OF THINGS

Definition / explanation: The Internet of Things (IoT) refers to a system of interrelated, internet-connected physical objects – that are embedded with sensors, software, and other technologies that can collect and transfer or exchange data with other devices and systems over the **internet** – over a wireless network, without human intervention. Not all **IoT** devices need an **internet** connection to **function** properly, however. ... Connecting it to the **internet** would give one control over it from outside the local **network**. An IP camera on the local **network can do** its job perfectly **without** a web connection for instance

The **goal** behind the **Internet of things** is to have devices that self report in real-time, improving efficiency and bringing important information to the surface more quickly than a system depending on human intervention.

"Everyday uses": In short, the **Internet of Things** refers to the rapidly growing network of connected objects that can collect and exchange data in real time using embedded sensors. Thermostats, cars, lights, refrigerators, and more appliances can all be connected to the **IoT**.

Some of the 9 most important applications of the Internet of Things (IoT)

- Wearables e.g. smart watches
- Health
- Traffic monitoring
- Fleet management
- Agriculture
- Hospitality
- Smart grid and energy saving
- Water supply



BIG DATA

Definition: Big Data is a collection of data that is huge in volume and complexity, yet it still grows exponentially with time.

Some examples of Big Data are data generated by The New York Stock Exchange (easily one terabyte of new trade data per day), social media such as Facebook (500+ terabytes of data per day), a Jet Engine (airplane) generates about 10+terabytes of data for every 30minutes of flight time.

Characteristics of Big Data:

Volume – enormous size. However, it plays a vital role in determining value of data

Variety – this refers to the heterogenous and nature of data, both structured and unstructured. There are numerous forms of data that are considered for mining and analysing data

Velocity – this refers to the speed of generation of the data – how fast the data is generated and processed to meet demands determines real potential in the data

Variability – this is the inconsistency that can be shown in data at times, thus hampering the ability to handle and manage the data effectively

There are numerous benefits to having the ability to process Big Data

- a) Businesses can use outside data to make intelligent decisions
 - b) Improved customer service
 - c) Early identification of risks to products or services, hence a quicker remedial action
 - d) Better operational efficiency
- and many others as well

BLOCKCHAIN

Blockchain is a decentralized public network that allows people and companies to store and securely transfer information and currency instantly. The term blockchain also refers to how the data is stored in "blocks" of information and then linked together in a permanent "chain." When a new block is added to the chain, it makes the previous blocks even harder to modify, which helps each block become more and more secure over time.

There are three basic parts to every blockchain.

1. **The record:** This can be any type of information.
2. **The block:** A bundle of different records.
3. **The chain:** This contains all the blocks linked together.

Blockchain Is Accurate - highly accurate. Every action in a blockchain is recorded and there is nothing left out. Once the action is recorded and stored in an information "block," each block has a timestamp and is secured. The entire record is available to anyone in the decentralized system.

Blockchain Is Decentralized

Blockchain is decentralized and not stored on a single master computer or controlled by one company, bank, or organization. Rather, it is distributed over many computers that are in the network. Think of the way Google Docs work and how you can share a single document with

multiple users and all users can view the changes simultaneously. This is very similar to how the decentralization of blockchain works.

Blockchain Is Permanent and Secure

As each block is completed, it joins the other blocks on the chain creating a permanent record of every transaction that is available to all the users of the blockchain in real time. This combination of features creates a high degree of security and makes the blockchain very difficult to change.

The Steps in a Blockchain Transaction

Each blockchain transaction, no matter what industry the blockchain is being used for, goes through the same steps.

1. **The trade or transaction is recorded in a record.**
2. **The trade is checked to make sure it's valid.**
3. **As each transaction is verified and accepted as being real, it's added to a block.**
4. **Once the block is complete—blocks can contain many transactions—it is added to the chain.**

Some uses of Blockchain

Supply Chain, Banks, big retailers such as Walmart, other big companies like Apple Inc., Toyota Motor Corp.

What Blockchain Means for Small Business Owners

Some small businesses, like tech startups, may develop blockchain technology themselves. Other small business owners may use blockchain technology that has been developed for the broader market.

For instance, blockchain technology has the potential to make running a small business easier and smoother.

Smart contracts: Blockchain technology can be used to create, verify, and enforce contracts between users. It can be used to pay bills and employees, invoice customers or clients, create insurance policies, handle inventory fulfillment, or any other transactional activity.

Data compliance: With new rules and regulations surrounding data compliance and data breaches, blockchain offers the ability to verify transactions without having to know the identity of the user. This can create a user experience that is more secure and less prone to hacking.



In the future expect more and more blockchain-based services to be offered to small businesses as alternatives to current record-keeping and transaction processes. This technology can drive innovation for new ways of doing business and may be especially useful for companies where transparency and security are important.