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Managing Legacy Data in Era of Digital Transformation.

Background

Managing data could be described as the standard process of data acquisition, processing through archiving and execution into the workflow domain, **Figure 1**. The common objective for such implementation is for improved efficiency within an organization. Following the advent of Digital Transformation (which is simply the application of technology in an organizational business process), the concept of data management has been transformed. This paper is aimed at highlighting the impact on such transformation in an organization through the proper management of legacy data. Most producing asset in sub Saharan Africa have been acquiring data for over sixty-year but such data are dispersed.

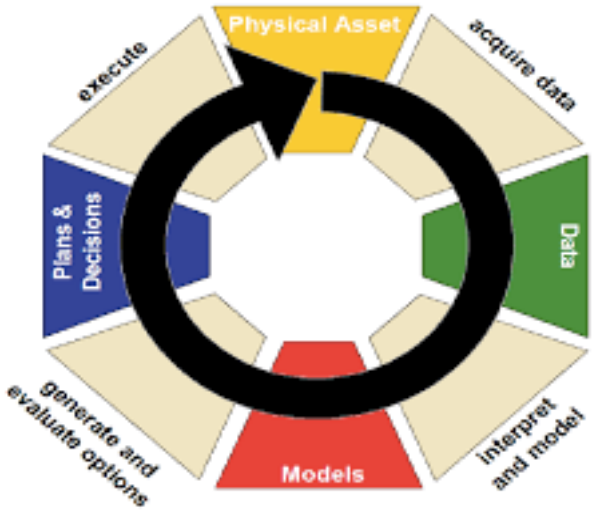

Figure 1: Value Loop Concept

The place of data in our business model cannot be undermined because data is a Corporate Asset, just like you have the physical asset. Almost every decision the domain experts make depends squarely on the data-set, so it is very important we treat our data with the required importance. It is a critical asset for any organization that wants to be relevant in the nearest future. Data has systematically become the driving force for technology innovation in virtually every sector of our business. The Oil and Gas industry is not left out especially taking into consideration that, the

Industry churns out large volume of data from high level of activities from several oil fields around the world. Hence, an efficient data management is key to unlocking the real value of technical and analytical application of the data as obtained from different sources. It is the cornerstone in which the Oil and Gas Industry is building the future.

Legacy data remains 'unstructured' in the form of documents, drawings or texts, hence managing these data in electronic or digitized form is a challenge. Following the advent of digital transformation agenda for the last two decades in the oil and gas industry (through the operations of IOCs and NOCs), data are more useful if they are transformed into a 'chewable' form. The emergence of digital technology like; Optical Character Recognition (OCR), Natural Language Processing (NLP) and Computer Vision makes it easier to transform legacy data into the modern digitized form as against the manual option of actually re-drawing or re-writing of these data set or drawings.

Data pattern recognition in the form of machine learning and Artificial Intelligence (AI) has been used extensively in this journey of transforming legacy data into a 'workable' mode.

Figure 2: Electronic Data Creation Using Artificial Intelligence

A trained algorithm is used in this process in recognizing symbols, texts or line character after several iterative process. Usually, Artificial Intelligence and Machine Learning are widely used for predicting or forecasting trends based on data input since they are normally data-driven. Data is in the center of customer experience, so proper management of the data set is key.

There are several advantages of digitizing your organizational data, which includes;

- Improve efficiency in your work processes. This enable seamless data interface with other applications or work processes.
- Supports speed in data processing or event execution.
- Digitized data are easier to archive which eventually results in safer and better way of managing the 'Big Data'.
- Reduction in cost in performing the same task if it were manually carried-out.

Meanwhile, there are limitations of existing technology in the image recognition technology technique space, which mainly works well for imaging Process & Instrumentation Diagram (P & ID) and Process Flow Diagram (PDF) documents. However, it is difficult to extract needed information from complex drawings (like the Electrical & Structural drawings) because of some overlapping graphics among other factors. Equally, scanning very old documents might be challenging because of poor pixel density per inch (dpi), which creates difficulty in identifying text and lines. It is expected that with advances in technology most of these challenges could be overcome with time.

Conclusion

In this era of digital transformation, organizations need to be deliberate in adapting to the smart way of working as it satisfies business needs to convert our existing manual documents or data to executable friendly mode or digital form with all the above highlighted business benefits. With advances in digital technology it is expected that the cost of carrying out such project or digitizing our data will significantly reduce while the mentioned challenges will be better managed while we up-scale the defined business benefits.

Who Can Help You Digitally Transform Your Business

Suneses Energy Limited (www.suneses-energy.com) are experts in digital transformation solutions. We will assist you in staff training, asset review and full-suite Digital Oilfields Implementation. *(Tel: +234 909 999 3650 & Email: info@Suneses-Energy.com)*

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