

Digital Transformation in Information Management

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Abstract

The purpose of this study is to explore the key elements of digital transformation in information management. The qualitative approach was conducted, where the main facts about a particular topic in digital transformation in information management were collected based on the research of existing information. One of the significant findings is a strong plan for information governance leads to better digital transformation outcomes in information management. This paper offers analysis on the road towards digital transformation, digitizing data and processes isn't enough in information management. The paper's findings and discovery are significant in highlighting the key elements of digital transformation to enable change in information management. The findings of this paper contribute towards the digital transformation offers tremendous strategy in information management. The well manages and use of information towards digital transformation can be beneficial to the organization by increasing the productivity of the organization. Digital transformation will change the pattern of the organization towards managing their information because they will see the important roles of information in the organization.

Keyword: Library and Information Management, Digital Transformation, Digitalization

Introduction

Digital transformations today are an essential part of every modern organization. Additional technologies such as internet, fiber optics, satellite and wireless communication will bring dramatic and basic changes to both business environment and the ways they do business (Hussin, Hashim and Yu, 2018). Digital transformation is the integration of digital technology into all areas of business, and it changes how it operates (Lund, 2019). It includes information management. Therefore, the needs to get ready for digital transformation are a key enabler for the success of information management (Enterprise Project, n.d). Information is view as an organizational asset where having high-quality and timely data just by fingertips at all times, anywhere and without restriction is one of the most critically need for digital transformation in information management. Digitalization has completely changed how

organizations create, access and consume data and information, especially digital data and information. Information as a valuable asset that needs to secure and protect within the organization. That is why well-designed information management governance and capabilities are crucial. Hence, it could help in collecting the right data to make the right decisions at the right time. Additionally, at the same time, it could help to enable a faster and effective response to changes within the organization at less cost, with fewer mistakes and leading to better performance.

Information communication and technology (ICT) are an essential part of the digitalization effort. As a result, the organization nowadays spend millions of ringgits on digital technology. The trend of digital transformation (or digitalization/digitization) create novel and disruptive products, services and processes based on new business or value creation models. Rachinger et al (2019) mention that the digitalization put pressure to the organization in reflecting their current strategy as well as exploring new business opportunities. This effect on how information management change, the needs of the digital transformation strategy plays an important role to ensure this transformation deliver quite high value to the information management in an organization. To grow and relevant, the organization's vision should include the digital transformation elements for future (Thorpe, 2019). Digital transformation strategy in information management could help in leveraging information activities in an organization such as the use of Internet of Things (IoT), smart devices, mobile application, big data and other digital technologies.

Problem Statement

Digital technology can help an organization and information professional to manage information effectively. Even though big data and smarter technology can make life easier, but the free availability of information is sometimes a threat. Other than that, the challenges of big data include difficulties in understanding the notation of big data (Hargittai, 2015) and massive of big data generated and collected hard for decision making (Crawford, 2013) is difficulties for this kind of technology. Moreover, the concern of any business organization is organization already fall behind in adopting the digital technology on their business (O'Brien, n.d). No longer data gatekeepers, information professionals' today's must work hard to demonstrate their value in new ways. If top management lack the right mindset to change and the current organizational practices are flawed, digital transformation will magnify those flaws (Tabrizi et al., 2019). Because of that, the digital transformation strategy is needed to ensure this transformation could deliver a positive impact on information management in an organization. Besides that, a strong plan for information governance that meets with digital transformation strategy could help to transform information management towards digitalization. Therefore, digitizing data and processes issue such as information security, integration and digital platform need to be taken into account to considered digital transformation in information management. Besides that, information users in an organization suffer from information overload. Where they usually perceived a lack of up-to-date, relevant, decision-ready information, delivered quickly enough for them to make use of it. In increase the performance of the organization, the information must be good quality and support decision making in those business processes whose results add value to the firm (Davis and Golicic, 2010). Small percentages of improvement of data quality may affect the result towards the organization performance (Azemi, et al., 2017).

Objective

This paper attempts to explore the key elements of digital transformation to enable change in information management. Thus, this transformation can develop effective and smart information management in future that helps to transform traditional information management into digital information management.

Literature Review

According to Krcmar (2015), information management (IM) is a critical part of an organization's management function and has the task of ensuring the best possible use of information for the organization's goals. Information is an asset of any organization nowadays, and a constant risk at more risk than before to the organization (Silva et. al., 2014). Digital transformation requires changes in the process of information management. For example, organization information, users usually use the traditional method to manage their information such as filing. This will affect their performance where the traditional method takes more time and effort to manage the information. In an organization where still use traditional information management facing issue to keep up with the volume of data. According to Sikora (2016), the term "digitalization describes the process, which leads society from the postindustrial information society into all aspects of the digital society". Westerman et al. (2011) define digital transformation as "the use of technology to improve performance or reach of enterprises radically".

Heinzl and Uhrig (2016) state that "tasks of strategic information management can be cited, which have the potential to absorb phenomena of digitalization" and they "indicate situation analysis, goal planning, strategy development, and action planning as example tasks". An effective digital transformation is not only digitizing paper documents and physical information into digital. It includes the process from the creation, organization, storing, dissemination, maintain and dispose of information digitally. In the past, standalone digitalization may have been the focus on reducing paper, but it changes today where digitalization is a critical element in automating the process of information access and sharing. As such, it is to make sure all physical documents can be accessed in digital form and can be shared for decision-making purposes.

Findings and Recommendations

From the study that has been made about information management nowadays, there are a few issues about why digital transformation is needed in information management. The issues are:

- *The increase in the volume of information where organization face problem to manage their information effectively. It leads to poor information quality and loss of productivity.*
- *Mismanagement of sensitive information that leads to information breaches.*
- *Low user adoption rates of information management technologies due to a lack of proper planning, configuration, training and change management.*
- *Lack of information governance policies and procedures.*
- *Storing of information is not organizes properly where the use of multiple repositories (drives, email) lead to the duplication and obsolete information.*
- *A lack of formal information management training, which leaves employees feeling unequipped to complete information management related tasks.*

To navigate digital transformation effectively, an organization needs digital transformation strategies. In response to these findings, several digital transformation strategies are pointed out as the key elements in information management. There are as follows:

Modernize the Information Management Infrastructure

The success of digital transformation in information management depends upon the way of information be used and share in an organization. That is why, by modernizing the information management infrastructure is important in digital transformation. Information management infrastructure includes:

Content integration and migration tools

Traditional information management facing issues with integrating and migrating to a single platform of content integration and migration tools. By using enterprise content integration helps the organization to support their storage systems where content is stored, shared and transferred in one single content integration and migration tools. Perhaps more importantly, it helps the organization to identify audit trail any content has been accessing and sharing among information users in their organization. Enterprise content integration provides seamless integration on file storage and any cloud storage service. This tool is useful to migrate and transfer information across dozens of platforms, supporting a wide range of use cases and across systems automatically.

Internal and external collaboration platforms

One important aspect of information management is the collaboration platform. In an organization, document safety, file, information and knowledge sharing have become an integral part of a collaborative platform. Digital transformation in information management needs enterprise collaboration tools to encourage communication, inside and outside of the organization. It helps to enhanced collaboration and improves the sharing of content in an organization.

Digitalizing the Core Infrastructure

One of the core infrastructures is a *digital workplace*. A successful digital workplace will increase the value of the information in an organization. A digital workplace can create a virtual office that very flexible to meets the needs of the organization in information management. Digitalizing the core infrastructure in the workplace will improve performance and reduce the risks. By adopting the digital infrastructure in the workplace will create a connected environment and help to leverage information activities in an organization. Digitalizing the workplace can address this concern by helping organizations:

- *Support changes in working styles that enable employees to work more transparently and better leverage social networks in the dissemination of knowledge and information.*
- *Unify offline and online communications through mobile devices to provide anywhere, anytime access to tools and organization's information.*
- *It is transforming workplace experience into digital that provides choice, flexibility and personalization to the employee.*
- *Support virtual work environments to stay connected in virtualized work locations.*
- *Minimize spending and enhance productivity by providing employees with the right tools and the right information at the right time.*

- *We are offering a progressing and innovative environment for talent attraction.*

Automating Information Governance – Assuring Compliance

Information governance defines a strategic approach to managing information. How information should be organized and monitored, who's responsible and accountable for the task and support for continuous improvement is the key elements in information governance. By enforcing end-to-end approach of information governance in an organization will help the organization to meet strategic, operational, and information compliance objective. Digital transformation in information management shall take a look at all information, regardless of its format. This includes structured information such as databases and unstructured information such as documents, emails and rapidly growing social media. These will result in a solution in information governance in *collecting regulatory information, analyzing information risk and automating policy enforcement*. Through automating information governance, an organization can establish and enforce better file governance policies and at the same time, assure information compliance.

Analytic Tools

Due to the volume, velocity and massive data produced from social media, blog, forum, website, email and other sources, the organization nowadays face a challenge on how to manage this information. By using analytic tools to establish intelligent information management will help the organization to get benefits from the information for data-driven decision purposes. R, Weka, HADOOP and Tableau, are some of the tools that will help the organization to derive insights from the data and information. Analytic tools are essential in establishing a data platform to leverage big data and adding value to the data and transform into meaningful information that can be used for strategic planning in an organization. The use of analytic tools helps to:

- *Details analytics as such for reporting current trends or pattern*
- *Examining insights for conceiving analysis*
- *Machine learning techniques for prescient analytics*
- *Prescriptive analytics to provide remedial insights*
- *Dashboards, charting tools to visualize and interact with the insights*

Digital Capabilities

In an era where everything towards digitalisation, technology nowadays rapidly changing. Due to that, Mancini (2012), President of The Global Community of Information Professional (AIIM) in his paper 'The Rise of the Information Professional' believes that "the role of information professionals is changing, and changing very quickly. The value-add for information technology in organisations is rapidly shifting from the technology per se to the stewardship, optimisation, and application of the information assets themselves." We can see today; digitalisation is a driver or key success in an organisation. That's why, the need for the information professional to adapt with this change and capable of adapting with digital technology like *Internet of Things (IoT), Artificial Intelligent (AI), Big Data, Cloud Computing* and many more to achieve digital transformation in information management. To reduce the cost and prepare for the technical challenge, the most important things is to train information professional and employees in IT training to enhance digital capabilities among them.

Conclusion

Digital transformation alone is not enough. It also needs people, process and technology to ensure the success of the transformation. Digital transformation helps the organization to manage its information effectively where it brings a holistic approach to information management in an organization. Well-managed information and digital transformation solution will allow the organization to gain many benefits such as:

- Streamline processes by creating efficiencies and accountability through streamlining, digitizing and automating processes.
- Add business value by recognizing the value of information and obtaining business value from increasing volumes of information.
- Enhance information sharing and productivity across the organization and externally.
- Strengthen governance and regulatory compliance to support proactive disclosure, litigation and recordkeeping initiatives, including retention and disposition.
- Improve accountability to increase oversight through reporting and auditing of business processes and information.
- Boost search and find to improve productivity and information findability through a holistically managed centralized repository.
- Enable digital by creating a user experience customized to the specific needs of individuals and the organization.
- Heighten security and prevent unauthorized access and use.

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