Concepts of Information Assurance

Information Assurance (IA) can be defined as the practiced of assuring information and managing risks related to the use, processing, storage, and transmission of information or data and the systems and processes used for those purposes. This practice includes protection of the integrity, availability, authenticity, non-reputation and confidentiality of the user data. In accomplishing the various tasks that have been highlighted to be under information assurance, this practice uses physical, technical and administrative controls. This practice has been considered to apply to digital data, however, it also applies to data in analog and physical form. This paper is analysis of concepts of information assurance through analysis of scholarly research, description of basic concepts of associated with management of information. It will also include comparison of core principles of information assurance.

Kenneth Laudon and Jane Laudon, have in their book succinctly discussed some of the essentials of management information systems (Laudon & Laudon, 2016). In their book, some of the key things that have been highlighted. The book concentrates on practices and procedures of computer security. It has discussed the strategic risk management of information systems and its application on security controls. This is mostly with references to issues such as malicious hackers and codes. The authors in details have discussed issues do with corporate governance issues such as privacy, regulatory and standards compliance. Disaster recovery as part of management information systems. The books through its chapters given some of the basic things when dealing with issues of computer security issues in business.

In the article by Christopher Rosana, there are various issues that have been discussed with the aim of understanding information systems as suggested by the title of the newspaper (Rosana, 2013). This article among other things identifies and explains information system models. Some of the models that have been discussed include binary model, which is where data is arranged in an inverted tree format where such data assumes two values. Another model is the hierarchy model, which is derived from the tree model. This model assumes multi-value data. Hypertext model is another model that have been explained. This model provides for another way of organizing information. An example of this is the world wide web.

In management of information systems there are certain basic concepts that creates the various issues that related to management of information systems. One of the basic concepts management. Management can be defined as the art of getting thing done by others. However, in regard to Management Information Systems, management can be defined as the process and activity that a manager does in the operations of an organization (Parker, 2008). This means that management comes into play with regards to how the various information can be handled in organizations such as companies.

Another concept is information. Information can be defined as the means processed data or data which can be converted into meaningful and useful form for a particular use by a specific user (Joshi, 2007). This means management of such information is what makes the whole issues of management of information. The last concept as there are only three concepts is system. There are various definitions that can be developed with regards to management of information. One of the definitions can be a set of elements joined together for a common objective. Another definition can be a group of interacting or interrelated elements that are joined together for a common course or objective such as business organization.

These three basic concepts of management, information and system are what creates a field of knowledge known as management of information systems. It is all about how information that exists in systems such as business organization are managed whether through analog or digital means. It all about ensuring that information is systems are handled in a manner where the integrity of such data among other properties of data are maintained.

When technology was still that advanced that is before the exitance of information assurance, the practice was known as information security and it involves basically confidentiality, integrity and availability of information for systems such as business organizations (Govardus, 2009). After the evolution of technology, information assurance came, it was aimed at guarantee that data will be protected that making such data authentic and valid. By combing of information security and information assurance today have five core principles that forms information assurance.

Availability is one such principles. This is the process of holding the data and the security process that protect it working in tandem through computer systems. Authentication is another principle when is aimed at guaranteeing that downloadable files, logins and passwords are not fake. Confidentiality is another principle, which allows only authorized users to access, use or copy information. Confidentiality compared to authentication can be said have a close relation as both to some extent aimed at protection of the information.

Integrity is another principle that protects da and does not allow it to be corrupted, altered, deleted or recreated with proper authorization. Non-repudiation is also another principle. This is a service that validates integrity of a digital signature’s transmission. From the description of these core principles there are similarities that can be derived from them with regards to their purpose. For example, all are aimed at protecting the integrity of information of a system. They also cannot work independently of each other. For example, non-repudiation is what brings about integrity of information data.

# References

Govardus, J. (2009). *Designing management information systems.* Oxford: Oxford University Press.

Joshi, G. (2007). *Management information systems.* New York City: McGraw-Hill .

Laudon, K. C., & Laudon, J. P. (2016). *Management Information Systems: Managing the Digital Firm.* New York: Mc Graw Hil Education.

Parker, h. (2008). *Management information systems.* Chicago: Cengage Learning Emea.

Rosana, C. (2013). MIS - Understanding Information Systems. *Journal of Management Information Systems*, 234-276.