A CONCEPTUAL FRAMEWORK FOR INFORMATION MANAGEMENT

by

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Crescat Scientia, Vita Excolatur

(Let knowledge grow and life be enriched)

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Nay, be a Columbus to whole new continents and worlds within you, opening new channels, not of trade, but of thought. Every man is the lord of a realm beside which the earthly empire of the Czar is but a petty state, a hummock left by the ice" - *Henry David Thoreau (1817-1862)*

Doing this study was similar to being at a new and beautiful place for the first time. There is a new discovery, a new surprise, around each corner and down each alley. One stands in wonder and experiences with all the senses. But while one pauses in admiration, other life goes on and, life being what it is, one cannot be at two places at the same time, nor can one do two things at the same time. It calls for a compromise; sacrificing one thing to gain another.

I would like to mention the following people who contributed in some way or another to make this study possible:

- My sincere thanks goes to my wife, Marietjie, and children, Annerie and Eben, who had to endure my absence and absentmindedness for long hours over many years. In particular, I want to thank Marietjie for gently forcing me back to the books when I was procrastinating or when I became discouraged. Her efforts were at the time perhaps not always appreciated, but are certainly now.

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- During the course of the study, two of my employers, the Development Bank of Southern Africa and Nissan (South Africa) Pty. Ltd. provided me with appropriate computer equipment at home to prepare the document. Their contribution is appreciated. It is hoped that this study will contribute to improved information management at their institutions.

Above all, I owe everything to the Lord, Jesus Christ, who, mercifully, gave me this opportunity and provided me with the strength and abilities to complete it. To Him be all the glory.

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EXPLANATORY NOTES

The following notes are provided to explain some of the conventions used in this study:

1.   The use of "he" and "his" does not denote gender, but infers "anyone".

2.   Quotations are enclosed in quotation marks.

3.   Words in square brackets enclosed in quotations have been inserted by the author to improve readability, or applicability of the quote.

A conceptual framework for information management

ABSTRACT

A CONCEPTUAL FRAMEWORK FOR INFORMATION MANAGEMENT

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PROMOTER: Prof. dr. J.D. Roode

DEPARTMENT: Informatics

DEGREE: D Com (Informatics)

Popular writers and experts say that we are living in an "Information" era, that we have become an "Information" society with an "Information" economy. Businesses have come to realise the importance of information for the survival of the enterprise in a business world which is becoming increasingly complex. This realisation led to the concept of "managing information as a resource".

This concept has the underlying assumptions that we know what information and information resources are, that information is indeed a resource and that information can indeed be managed. The purpose of this study is to evaluate these assumptions and to propose a framework for information management.

Information is strongly linked to data, knowledge and wisdom. These terms are often used interchangeably in ordinary language. For the purposes of this study more accurate definitions were proposed. Data are unevaluated attributes, information is data put into perspective and context while knowledge is justified, true beliefs. Wisdom is a special ability of a person to make meaningful "connections" between his own knowledge and information thereby exhibiting insight into a given situation.

Information can only exist in the human mind as that is the only place where meaning can be added. Information can be made tangible by putting it on paper or through verbal expression, but, once outside the mind, it can, at most, be called information resources. The process of transforming data into information resources and transforming information resources into information and knowledge is called the information process. This process is reversible and iterative.

Every single human being needs information in order to survive. It is a basic human need. It plays an important role in learning and in communication with an equally important role in society. It has strong implications regarding the individual's rights to privacy and access to information. The use of information by society has an influence on culture and it shapes a new economy which is based on services and knowledge. It has the ability to replace capital and becomes "capital" in itself. Because of its importance to individuals, business, on a national and international basis, information needs to be managed.

Information management means the cost-effective management of the information process, the information resources and the information infrastructure in pursuit of predetermined goals. It is a centralised function within the organisation with the purpose of facilitating and providing the framework needed within which to manage information. The management of information means that the information resources allocated to individuals are managed prudently and is the responsibility of each individual. The management of information takes place within the framework provided by the information management function.

Information *is* a resource and a manageable one. Considering that a change in a person's knowledge occurs when presented with information, another dimension becomes evident, namely, that of a process; the process of informing. Both these dimensions need an infrastructure in support. Information management is the management of the resource dimension, the process dimension and of the infrastructure and calls for an holistic management approach. The aim of information management is to mobilise the data, information and knowledge resources into productive action. That is the challenge facing individuals, organisations and governments.

SAMEVATTING

'n KONSEPTUELE RAAMWERK VIR INLIGTINGSBESTUUR

KANDIDAAT: J.J. van Loggerenberg

PROMOTOR: Prof. dr. J.D. Roode

DEPARTEMENT: Informatika

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Populêre skrywers en deskundiges beweer dat ons in 'n "inligtings"-era leef en dat ons 'n "inligtings"-samelewing geword het wat op 'n "inligtings"-ekonomie gebaseer is. Ondernemings het lankal reeds die waarde van inligting vir hul oorlewing besef in 'n sakewêreld wat toenemend kompleks geword het. Hierdie besef het gelei tot die konsep: "Die bestuur van inligting as 'n hulpbron".

Hierdie konsep berus op die aannames dat ons weet wat inligting is, dat ons weet wat inligtingshulpbronne is, dat inligting weliswaar 'n hulpbron is en dat dit inderdaad bestuur kán word. Die doel van hierdie studie is om die aannames te toets en om 'n raamwerk vir inligtingsbestuur voor te stel.

Die begrip "inligting" staan in noue verband tot die begrippe data, kennis en wysheid. In die gewone omgangstaal word hierdie begrippe dikwels as sinonieme gebruik. Vir die doeleindes van hierdie studie moes meer akkurate definisies gevind word. Data is ongeëvalueerde eienskappe, inligting is data wat in perspektief en binne konteks geplaas is en kennis is geregverdigde, ware oortuigings. Wysheid is a spesiale eienskap wat iemand besit om betekenisvolle "verbindings" te maak tussen die kennis en inligting wat hy reeds besit om sodoende besondere insig in 'n gegewe situasie te toon.

Inligting kan slegs in die menslike brein bestaan aangesien betekenis slegs daar toegevoeg kan word. Inligting kan wel tasbaar gemaak word deur dit op papier te plaas of deur verbale uitdrukking, maar sodra dit buite die brein is, kan dit hoogstens as inligtingshulpbronne beskryf word. Die proses waardeur data tot inligtingshulpbronne en inligtingshulpbronne tot

inligting en kennis omvorm word, word die inligtingsproses genoem. Hierdie proses is omkeerbaar en iteratief.

Elke enkele mens het inligting nodig om te lewe. Dit is 'n basiese menslike behoefte. Dit speel 'n belangrike rol in die leerproses en in kommunikasie en is derhalwe belangrik in die samelewing. Dit het sterk implikasies vir die individu se reg tot privaatheid en sy reg van toegang tot inligtingshulpbronne. Die gebruik van inligting deur die samelewing het 'n invloed op kultuur en skep 'n ekonomie wat op dienste en kennis gebaseer is. Dit het die eienskap dat dit kapitaal kan "verplaas" en dat dit "kapitaal" op sigself kan word. As gevolg van die belangrikheid vir individue, sakeondernemings en regerings, moet inligting bestuur word.

Inligtingsbestuur beteken die koste-effektiewe bestuur van die inligtingsproses, die inligtingshulpbronne en die inligtingsinfrastruktuur ter bereiking van voorafbepaalde doelwitte. Dit is 'n gesentraliseerde funksie binne die onderneming met die doel om te fasiliteer en die raamwerk daar te stel waarbinne inligting bestuur moet word. Die bestuur van inligting, daarenteen, beteken dat die inligtingshulpbronne wat aan individue binne die onderneming toegedeel is, met omsigtigheid en verantwoordelikheid bestuur moet word. Laasgenoemde is die verantwoordelikheid van elke individu. Die bestuur van inligting vind plaas binne die raamwerk wat deur inligtingsbestuur verskaf word.

Inligting *is* 'n hulpbron en dit *is* bestuurbaar. As daar in ag geneem word dat 'n verandering in 'n persoon se kennis plaasvind wanneer hy met inligting gekonfronteer word, word 'n ander dimensie duidelik, naamlik, dié van 'n proses; die proses van "om ingelig te word". Beide hierdie dimensies benodig 'n infrastruktuur ter ondersteuning. Inligtingsbestuur is die bestuur van die hulpbrondimensie, die prosesdimensie en van die infrastruktuur en verg 'n holistiese bestuursbenadering. Die doel van inligtingsbestuur is om die data, inligtings- en kennishulpbronne te mobiliseer tot produktiewe aksie. Dit is die uitdaging aan individue, ondernemings en regerings.