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EFFECTS OF DOCUMENT FORMAT TYPES AND EMPLOYEES' ATTITUDES TOWARDS DOCUMENTS CREATION AND RECORDS MANAGEMENT

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Abstract

The purpose of this article is twofold. Firstly, to highlight that different types of document formats are proliferating and are constantly changing the ways we create, store, access and preserve records. It focuses on understanding the various ways records managers interpret and behave towards the different types of document formats. The second purpose of this article is to explore the repercussions of the behavioural patterns of employees and how the changing types of document formats impact on the management of corporate records and information. The main approach of the article is a literature review, although observations made from different contexts of records management, teaching workshops and experience were also included to help with the discussions. The article identifies that specific types of formats can be clearly conceptualised when format is viewed in terms of a document, a file or as information. The study also found that people within the organisation exhibit different types of behaviour patterns that can impact on the ways these documents, files and information format are managed in the organisation. Employees' behaviour patterns have implementations for the various information and records management processes in that when documents are not created in the required document format using the right software application, records cannot be accessed and used for its intended purposes.

Keywords: Document format, records, document creation, records management

Introduction

The fast-developing digital technologies constantly influence different components of the archives and records management occupation, presenting both opportunities and challenges for the field. An element of records management that has received a great deal of the influences from the new digital technologies is the development of different types of document formats. A document format refers to the state of a document or record. That is the particular condition a document is in at a point in time. It can be physical, including written, presented or drawn on paper, word, tablet, stone, etc. It can also be non-physical, including memorialised representation of thoughts, digital document, etc. (format is discussed in detail with in subsequent sections). The type of format influences how people interpret or use a document and, for that matter, how

they manage records and information. While some records management professionals see the changing types of document formats as an opportunity, others perceive it as a challenge, resulting in different viewpoints and behaviour patterns of employees around the ways they handle documents and manage records or information within the workplace. This article draws on literature discussions to understand the various elements of employees' attitudes towards document formats and records management. In this article, the term 'record' is used to mean the same thing as 'information'. Thus, recordkeeping is also used to mean the same as information management. This is in line with descriptions in the report by the Chief Archivist of Archives New Zealand (Archives New Zealand 2018). According to the New Zealand Public Records Act 2005 (PRA), a record is any format of information, including paper and digital documents, text, data compiled, email, signature, seals, images, sounds and speech. These forms of formats may be presented through any means such as, written form or on any material, on film, negatives, tapes or other means that are capable of being reproduced (New Zealand Public Records Act 2017).

Context

In the modern world, the influence of the constantly developing digital technologies is not only being felt in the field of records and information management. It can be seen in all aspects of human endeavours, including education, communication, business and travel. New technologies have significantly changed the setting of the modern workplace environment. The working context of modern organisation is no more defined by a single characteristic or factors like a single space, one type of technology, specific time, a particular culture, religion, age or gender. The modern records management workplace is full of multifarious digital technologies and employees from diverse backgrounds who can work at any time from any place around the globe. Therefore, records management within today's organisation can be complicated by employees' attitude. This is because each employee comes to the workplace with their own cultural values, beliefs systems, perspectives, philosophies and social norms, which, in varying degrees, influence their behaviour towards the types of technologies and subsequently impact on records management in the workplace.

Rationale

Another reason why this article seeks to highlight people's outlook towards format and how that impacts records management, is because of the need for information professionals to see the importance of records and recordkeeping in modern information management practice and research. Advancements in digital technologies are blurring the boundaries between various information management sectors. The activities of archives and records management, libraries, museums, arts and galleries are increasingly becoming seamlessly overlapping. Common information management concepts are also constantly evolving to clearly show the significant aspects of all components involved in information management. For instance, an information management concept like 'information literacy', which has been the focus of the library sector for a long time, can now not make complete sense without the thinking of related concepts like 'digital literacy, media literacy, and cultural literacy'. These information literacy-related concepts also run through archives and records management, meaning that recordkeeping is a very important part of information literacy. Thus, one can confidently suggest that it is about time to create awareness of recordkeeping literacy among employees within the organisation. The influence of new technologies has revealed the power of records and recordkeeping in information management, which, according to Oliver (2017), is an important aspect that has been neglected in the information literacy research for a long time. This missing awareness of records perspective in the information literacy concept can be attributed to the behaviour of information management professionals generally. For instance, library professionals have a low regard for the archives and records management sector because there is lack of unity between archivists and records managers, leading to lack of a strength in both the archives and records management fields. But there is much power in records because every piece of information or data is a record and each record is defined by what information does to it or what the record has the potential to do (Oliver 2017). Nevertheless, whether data, information, records or archive, they all come in a specific document or file format to be managed in the same way in all the various information management institutions. This makes it very important to explore and understand the forms and types of document formats in information management and to find out how professionals handle the formats of information. This will help to understand the implications document format has for effective information management and the construction of a common memory. The study is guided by the following research questions:

- What are the key types of document formats for archives and records management?

- What behaviour patterns are displayed by employees towards the changing types of document formats?
- How do these behaviour patterns impact corporate records management?

Literature review

This literature discussion is structured using the main concepts underpinning the topic of this article. It looks at what format is and relates it to the meaning of media.

Document format

The meaning of the term 'format' used in this article was briefly explained in the introduction. This section discusses it more fully. The word 'format' is used differently in different contexts and can mean different things to different people. For instance, in music, format can mean the form of an album and how it is compiled. It can also mean the form of a musical group or the form of a disc jockey (DJ). In art, the format can mean the shape and forms of designs and embroideries. In sports, format is used to describe the form of the game, the style of performance or even shape of turf, etc. (Dadswell et al. 2013; Petersen et al. 2010). In computing, the format can mean many things, including the way in which information is encoded and prepared for storage, converted, saved and printed, etc. (Anastasio, Suresh & Burkey 2013; Quain 1999). As can be seen from the discussion, the format in all its meaning in the different settings points to the way in which something is arranged or set out. It is the shape, size, form, structure and presentation of an object or a performance. The way in which format is presented is referred to as media. It is important to distinguish between media and format here. Media refer to different channels, utilities or objects that are used to display, transmit, store and deliver data or some information from one place to another, one person to another as well as to the masses. Electronic media apply to the form of media that can only be assessed by electricity or the type of device that allows distribution of information to create, broadcast and store these recordings or presentations. This type of media can be shared on any electronic device by the viewer, unlike static media (print media), and can be transmitted to the wider audience. With the development of new digital technologies, electronic media have added so many varieties to the types of media, including mobile phone, desktop and laptop computers, radio, television, DVD or CD-ROMs, internet, etc.

When it comes to information and records management, the meaning of format will make more sense when we look at the meaning of information and document. This way, we can then apply the discussion above to understand that in information management, the format can be determined by the layout of various information resources and individual data sets within those resources. Information has been defined in various ways by different experts (see Madden 2000; McCreddie & Rice 1999; Shenton & Hayter 2006; Shenton & Johnson 2008). For the purposes of the discussions in this article, we will focus on McCreddie and Rice's (1999) ideas to define information as a resource or commodity or data in the environment that is represented as knowledge and communicated through a process. So, with this idea, you have information represented in different formats such as:

- Articles – including journal articles, newspaper articles, magazine articles (see Majumder 2015; Springer 2018).
- Books – including print books and e-books.
- Web-based information resources – including online articles, online reports, blog posts, Facebook posts, Twitter posts, YouTube videos, just to mention a few.
- Other formats of information include text, sounds, images, etc.

When it comes to what a document is, there are many claims and counter-claims in the literature. Buckland (1998) claims that it is complex to define a document because his original notion of the word “document” had been discussed by others before him (such as Paul Otlet and Suzanne Briet) to include physical objects like sculpture, museum objects and live animals. If the discussion of document formats in this article was to be done in the 1990s, all these objects Buckland enumerates would pass as examples of formats of documents. But now, what is considered document format is completely different from these objects. A decade later, Frohmann (2009) challenges the point and purpose of Buckland's (1998) complex definition of what a document is and suggests that records managers need not preoccupy themselves with a definition or the origin of the document. Professionals should be concerned with clear cases of things we agree to be documented, or activities that can be considered to be instances of documentation and then use stories to show analogies and similarities of such stories (Frohmann 2009:296).

This challenge and other discussions made Buckland revisit his idea of what a document is and he came up with three different views of a document:

1. A conventional view: this views a document as a material record, including graphical records, usually of textual form, inscribed or displayed on a flat surface (including clay tablet, paper, microfilm, computer screen).
2. An instrumental view: this view encompasses anything that can be held up as constituting evidence of some sort. Thus, things including a model, educational toys natural historical collection and archaeological traces can all be considered to be documents.
3. Semiotic view: This group of documents (unlike the previous two groups) include materials (including natural signs) or cases that can be adequately regarded as evidence of situations, but for which there is no creative intent (Buckland 2014:179).

As can be seen from the literature discussions, there are different viewpoints of what a document or documentation is. There are also different outlooks by records management experts on what forms a document. The point in this article is that if people have different viewpoints and perspectives of what a document format is, they will certainly behave differently in the way they handle different formats of documents at the workplace. The attitude of the employee at the workplace can also have implications for corporate information or records management and that is what this article seeks to explore. But, before we proceed, it would be good to look at the different types of formats that can be found in the modern workplace.

Types of formats found in the modern workplace

As a result of the fast-developing new digital technologies, new formats are continuously being invented to work with systems. In records management, documents and records are represented by files and folders. Therefore, to fully understand how people behave towards different types of formats, it is important to look at both file formats and document formats that exist in the modern workplace. From the discussions above, we can see the different types of document formats. Popular file formats to facilitate home office computing include the Rich Text Format (RTF); Portable Document Format (PDF); Hypertext Markup Language (HTML); Tagged Image File (TIF); Joint Photographic Experts Group (JPEG) (Quain 1999).

However, when it comes to file formats, Ordun˜a-Malea, Ortega and Aguillo (2014) found that three main types are mostly influenced by people's language (especially English, Spanish, German, French and Italian). These types include:

- Rich files: although in the web industry, “rich” files tend to be video- or audio-based documents, within the scope of webometrics this nomenclature traditionally refers to content-oriented files like DOC, PPT and PDF formats.
- Web files: this category comprises all documents created by a web mark-up language, among which static (HTML, XML, etc.) and dynamic web files (PHP, ASP, etc.).
- Multimedia files: video, audio and graphics belong to this file category (p. 97).

The types of file formats discussed here can be related to the types of information and document formats discussed above. The use of formats increases the levels of interoperability, reduces the limitations of maintaining records effectively and allows for easy migration and export. Ordun˜a-Malea et al. identified that these types of formats are influenced by different languages. But one can argue that language is just one element of the factors that can determine people’s behaviour around formats of documents or information and the format they come in. The other elements that can determine employees’ attitude at the workplace can be found in their information culture. Language is just one aspect of that culture.

Documents formats sort out how content is arranged or put together and stored within an electronic environment. A file format is a standard way that encoded data are recorded on some type of electronic software storage device and saved to hardware in a computer file. Each different type of file has its own format that tells the computer how to display, print and process and save the data. The format is controlled by the software application program which created the file and the operating system under which it was created and stored. Filename extensions, those letters after the dot, tell us about the format of the file type and the type of data. Table 1 provides a summary of some types of formats, their common extensions and sample document types they can be used to represent.

Table 1: Summary of formats

File Format Type	Common Formats	Sample Files
Text	PDF, RTF, TXT, DOC	Letters, reports, memos, email messages created or saved as text and may include graphics.
Graphic graphics	DFX, DIF, TIFF, BMP, GIF, JPEG, PNG	Web page graphics, simple illustrations, photographs. Stores graphical image either as vector-based using a mathematical formula that enables the image to be scaled or as a collection of pixels which cannot be scaled without distortion.
Video and audio files	MOV, MPEG, WMV, WAV, MP3, AVI	A short video to be shown on a website and can contain moving images and sound.

Information culture

Information culture involves the values, beliefs and behaviours that influence the ways in which people identified information, accessed it, used it to achieve desired results, including how they shared and preserved it for the future (Oliver & Foscarini 2014:2). According to Oliver (2011), information culture is shaped by influences occurring at three main levels – some of which are more open to change than others. The influences that are likely to change are seen as a fundamental layer of the information culture.

- Respect for information as evidence – recognition and awareness of the need to manage.
- Respect for information as knowledge – recognition and awareness of the need to manage certain information for the purpose of increasing knowledge and awareness.
- Willingness to share information – the level of granularity to which information sharing is regarded as the norm within the organisation.
- Trust in information – this will focus on consideration of preferred primary sources for information, for example, individuals or text resources.
- Language requirements – any constraints associated with particular character sets used, also needed for multi-lingual versions of information.
- Regional technological infrastructure – technological infrastructure in place externally will be a profound influencing factor on the dimensions of the information culture within an organisation.

Other factors that can influence people's information culture include their skills, knowledge and experience relating to information management. These influences can be acquired and/or extended within the context they are applied in. They appear at the second level of information culture framework as:

- information-related competencies, including information and computer literacy

- awareness of environmental (societal and organisational) requirements relating to information.

The behavioural elements have several implications for the management of information and records.

Implications for corporate records management

The main aspect of records or information management includes how documents or information is created, stored, accessed, used and preserved, as the types of format and employees' attitudes towards them can have implications for all these processes in information management.

Document creation

The format of a document is determined by the software used to create it. This means a document format is first established at its creation. To create text documents with the right formatting, you will need a program like Microsoft Word. To create an image document, you need image editing software such as Adobe Photoshop. Format can limit or extend what you can do when creating a document. For example, when creating an email, choosing to create it in plain text format or in html has implications for what you can do – plain text emails are much more limited than html, and do not allow any formatting. Format can also affect how documents can be shared. If a document is to be disseminated outside your organisation you are reliant on other organisations having the same software to be able to access your document. Documents are created using various software applications and it is these different applications that create information in different formats, as discussed above. The format a document is created in, is influenced by various factors, such as who will need access to the document in the future and whether they will be able to access it in the chosen format at the point of creation. For example, in creating a PDF document, does the colleague have Adobe software to read the document? Additionally, some formats are not supported well in a web environment, such as vector images, whereas TIF and GIF formats are supported by most graphics applications. Therefore, when creating an image file, considerations about what the image will be used for, for example, will affect the choice of format. Both the document creator and the person who will access it in the future have specific beliefs, values and philosophies that can influence their behaviour around the system that is being used to create and use the document format.

People's trust in certain systems influences their willingness and preferences for specific technologies or competence in using specific tools to create documents. The trust they have for

the stems also builds up their respect for the specific format of information created. Thus, at a personal level, some people prefer to use document formats like emails, photos, minutes, notes to a colleague, Facebooks, personal plans or report, voice messages, text messages video messages, etc. The reasons for preferring and being willing to use these document formats are many and varied. Mostly cultural and social reasons influence people's personal use of technology and document formats. At the personal level, it may be because the tool used for creating these formats of information are the only tools available to the person. It may also be that those tools are easy to handle and achieve the best result for the person. Some people even prefer to talk and share their information orally, instead of writing or texting. However, at the workplace, people do not have much control over the tools and document formats they prefer. They are provided with what the organisation has available and the employee has to learn to use them to get the job done.

Within the organisation, documents are primarily created for communication and records are used as evidence of transactions. Information is required to be communicated and it is up to the creator to determine the best way for that specific information to be communicated. The format of a document is going to get the point to the chosen audience most effectively if the creator and audience have a common understanding and interest in the format at the creation and receiving end. Any misunderstanding on the part of either the creator or receiver of the document may cause a distortion in information communication and, hence, a distortion in the record. For example, if an agenda of a committee meeting in an organisation is best created as a Word document format (.doc or .docx) as the acceptable standard format, but the creator of the document for some reason does not prefer to use Word format, it can cause distortions in that organisation's records and memory. Once new documents are created, they are stored within systems to make it easy to access and use them for transactions within the organisation. In recent times, ECMs are useful to provide specified file locations to store documents records and information. This allows any other staff member who requires the ability to edit the document and access the record to do so, provided they know the file location, specific record number or whether the file is named using appropriate naming conventions that it can be found using the search function. From the EDRMS, the created document can be distributed directly to all staff who require it to perform the specific tasks for which the document was created. However, if any of the employees (whether at the creation point or at the receiving end) do not trust the system or are not conversant with the software, they will not be able to create a document that can be easily accessed and used to achieve the organisation's goals.

Records management professionals, especially those from Africa, the Pacific region and other developing country contexts, usually have preferences for different communication media and formats as well as preferences with regard to sharing information. For instance, employees in archival authorities in Ghana and Fiji demonstrate a preference for communicating orally to a colleague rather than through emails. Even when there is email communication, they will still get up from their desks to discuss the issue orally to make sure that the message has been received. The reason for such behaviour was explained to be as a result of trust. They trust face-to-face, oral conversation more than email or other formats of communicating information (Boamah 2014). The creation of that information is highly susceptible due to the rapidly evolving technology environment. The file formats an organisation chooses during the creation of the document have a direct impact on the ability to open those files at a later date and on the ability of other people to access those data. The adoption of open file formats adheres to specifications that are published and accessible such as standard or open source and allows a wide range of applications that can be used to create and display that type of content. Tagged Image File Format (TIFF) is an example of a common format used for exchanging scanned images. Proprietary formats are controlled and supported by just one developer or can only be read by a limited number of programs and run the risk that organisations have files that can no longer be read. Discontinued examples include WordPerfect, AppleWorks and Microsoft Word.

Storage

If the format that a file was created in is stored for later use, everyone in the organisation must have access to that same software in order to read the file. If these tools are not available or if the file is not accessed over a period of time and during that time the program becomes obsolete, the information content of that file becomes inaccessible. The life expectancy of an application is between 3 and 5 years. Documents that need to be readable for more than 25 years will often need to be read across at least five different versions of software or separate applications. Document format can have a significant impact on how documents will be stored in a storage system, especially in an EDRMS. Formats can have differing sizes despite carrying the same document. This means that there might be advantages to choosing a file format for a document that takes up less space and, in turn, requires less external storage devices to be stored. This ties in with compression and the decisions on which format can be easily compressed without losing data or if losing some is acceptable. Formats also differ in how easily they can be accessed, which is important because the document needs to follow the legal standards that apply to records and documents. Therefore, a balance needs to be reached on the security of a format and the

technology that uses the format against the ease of access to ensure efficient workflow. When it comes to storage, file size and durability of format are very important. Format that allows for easy resizing to create more storage space becomes useful. For instance, some storage devices and formats of documents are not able to withstand frequent access and use. USB drives, for instance, are usually built to last for about 10 years, depending of the format of documents stored on it and how frequently they are accessed. The more you save, store or delete materials in certain formats (certain video files, Word, PDF, etc.) on a USB drive, for instance, the faster it weakens and reduces in life span from about 10 years to two years. Therefore, format has an impact on storage. The data migration of files from one format to another involves the risk of data corruption, loss and alteration as to whether a file has retained all of its characteristics and functionality. The storage media on which digital information is recorded have inherent characteristics that mean that they degrade relatively quickly, at least when compared with the known durability of paper.

Access

Format affects the access to a document in many ways and needs to be thoroughly thought out. Firstly, the format of a document determines which software and technology can access the document. This is important because it means that whoever needs access to the document also needs to have that software. The software itself becoming obsolete is also an issue as files would need to be transferred to another format or access would be lost. Another issue is that access needs to be restricted to only those who need to access the document. This is good practice in ensuring the authenticity of records but format can have an impact on how easy it is to secure and hide. As discussed earlier, format can also affect the size of a document and large sizes can be problematic to move, because of internet speeds and storage space capacity possibly harming the ability to access a document. There are several ways in which format impacts the accessibility of information. Technical compatibility is an issue. Depending on the format, the software used to access a document can impact how it is presented. For example, documents created in an older version of software may have to be opened in a special compatibility mode, which could impact the formatting, potentially losing important contextual information. Format can also affect the usability of a document by limiting what people can do with it; for example, one would not want to create a working document in PDF format, as it would be unable to be edited, but PDF might be the perfect format for the final report or record because of its fixed nature. Format can have an impact on whether a document is able to be searched for effectively. For example, a scanned PDF image of a document will not be full text searchable. Technological

obsolescence has implications for access to record keeping over time as the versions of hardware, hard drives, memory cards and servers change rapidly. Digital information is reliant on particular software, therefore, keeping up with software upgrades and development is crucial to assist in migrating files to future formats. To ensure that electronic documents retain the same format and meaning over time, IT needs to make sure that software is up to date, provides a good range of functionality and limits the number of platforms in which documents are created. Users, for example, have more choices of devices and do not always use the same tool all the time and create documents on their iPad, smartphone or laptop at work. With the introduction of new file formats, compatibility issues can occur when using and sharing older file types like older windows versions.

Preservation

The document is then preserved within the EDRMS as the current controls do not allow all staff the ability to delete documents. A number of factors can cause file formats to become obsolete so the chosen format will affect long-term digital records preservation. Caplan's research (as cited in Goertzen 2010) explains that preservation is not simply about capturing snapshots of the original. It is about ensuring that content remains available in its authentic form for future generations. Once selected, those formats must be sustainable so that information stored today will be accessible tomorrow. We do not know how technology will change over the next 10 years, but Caplan suggests the use of sustainable file formats and preservation metadata, wherever possible. These include PDF/A, JPEG or TIFF formats which all can be easily mitigated over time. To demonstrate an organisation's commitment to digital preservation, the organisation needs to consider developing a preservation policy which assigns roles, responsibilities and the means to monitor and review the changing digital environment. By creating the document as a common format, the document is able to endure ever-changing technologies as, to date, documents created in previous versions of Word can still be opened, negating a common frustration with electronic documents that are unable to be opened once the software used to create them is updated. By using an EDRMS that is compatible with multiple electronic media formats, the organisation is able to ensure that the majority of documents created will not have their useful life-cycle shortened by changing technology and, due to the current controls, documents cannot be accidentally removed from the system without vigorous screening to ensure it is not required in the future. Despite these controls and the widespread use of Word as a common document format, it is still proprietary software, which means it requires a license. Also, because of technological obsolescence, a format that can affect migration from one

digital preservation system to another is necessary. Format has implications for the preservation of electronic documents. The lifetime of a document might be longer than the lifetime of the software that is used to read it. Because of this reason, a format must be chosen that has proprietary software likely to last. There are legal obligations to preserving documents and if the wrong format is chosen, it could cause a problem legally. The format must also be able to be transferred to different formats without contextual information being lost in the data migration. This is because, if the document is changed in migration, it harms the authenticity of the document. PDF is an example of a format that is preservation friendly with development dedicated to ensuring that it can run on new platforms and tools given for migration to and from the format. The majority of organisations around the world would have access to the software; however, transferring the final version of the document into a PDF file format could alleviate any potential difficulty with end users' ability to read the document, as PDF is an open file format that has both backward and forward compatibility. The use of an EDRMS system also creates a classification that the document is stored into, which conforms to an organisational plan, rather than individual preferences. This ensures documents can be found relatively easily and eliminates the need for unnecessary searching. An organisation-wide classification system also includes a standard naming convention, further increasing the document's ability to be found quickly and easily by internal users.

Conclusion

Document or information format is different from information media. Format is the way in which information or a record is arranged or set out, including the shape, size, form, structure and presentation of data. When it comes to information and records management, format can be conceptualised in different forms and types. The specific types of format can be clearly conceptualised when viewed and in terms of a document, a file or as information. When viewed as information, types of information formats include:

- Articles – including journal articles, newspaper articles and magazine articles.
- Books – including print books, e-books.
- Web-based information resources – including online articles, online reports, blog posts, Facebook posts, Twitter posts, YouTube videos, just to mention a few.
- Other formats of information include Text, sounds, images, etc.

When viewed as documents in the workplace, the key types of document formats include letters, reports, memos, email messages created or saved as text and possibly graphics. Web page graphics, simple illustrations and photographs store graphical image either as vector based using a mathematical formula that enables the image to be scaled or as a collection of pixels which cannot be scaled without distortion. A short video to be shown on a website can contain moving images and sound.

Format can also be seen as files in a record system. Examples of this type include:

- Rich files: although in the web industry, “rich” files tend to be video- or audio-based documents, within the scope of webometrics, this nomenclature traditionally refers to content-oriented files like DOC, PPT and PDF formats.
- Web files: this category comprises all documents created by a web mark-up language, among which static (HTML, XML, etc.) and dynamic web files (PHP, ASP, etc.).
- Multimedia files: video, audio and graphics belong to this file category.

This study also finds that people within the organisation exhibit different types of behaviour patterns that can impact on the ways these documents, files and information format are managed in the organisation. The various behavioural patterns can be seen in the information culture of employees, including the ways they respect information and record as evidence. Their willingness to use systems and tools to share information in the required formats within the origination, how they trust the systems used to create, store, access and preserve corporate records and organisation, etc.

These behavioural patterns have implementations for the various information and records management processes in that when documents are not created in the required document format using the right software application, those records cannot be accessed and used for its intended purposes. When records are not used for their intended purposes, it means they cannot be effectively preserved and there will be gaps in the future memory of that organisation and will eventually create gaps in the national memory. This situation calls for proper awareness creation among records managers, archivist and information professionals, including people with creating personal documents and records, for them to gain a proper understanding of the importance of document formats in the management of records and information and the subsequent development of memory. This awareness creation is necessary for the development of a records literacy programme, within the broader information literacy endeavour.

Reference

- Anastasio, D., Suresh, A. & Burkey, D. 2013. Technology in the classroom: transitioning lab and design to an all-digital workflow. *Chemical Engineering Education* 47(1): 65-70.
- Archives New Zealand. 2018. Managing public sector information and data and why it matters: the Chief Archivist's report on the state of government recordkeeping. Available at: http://archives.govt.nz/sites/default/files/report_state_of_government_recordkeeping_2016-17.pdf (Accessed 10 March 2018).
- Boamah, E. 2014. Towards effective management and preservation of digital cultural heritage resources: an exploration of contextual factors in Ghana. PhD Thesis, University of Wellington, Victoria. Available at: <http://hdl.handle.net/10063/3270> (Accessed 13 March 2018).
- Buckland, K.B. 1998. What is a document? *Journal of the American Society for Information Science* 48(9): 804-809.
- Buckland, K.B. 2014. Document beyond documents. *The Monist* 97(2): 179-186.
- Dadswell, C.E., Payton, C., Holmes, P and Burden, A. 2013. Biomechanical analysis of the change in pistol shooting format in modern pentathlon. *Journal of Sport Science* 31(12): 1294-1301. <https://doi.org/10.1080/02640414.2013.777762>.
- Frohmann, B. 2009. Revisiting what is a document? *Journal of Documentation* 65(2): 291-303. doi: <https://doi.org/10.1108/00220410910937624>.
- Goertzen, M. 2010. What it takes to make it last: e-resources preservation: a NISO webinar. *Information Standards Quarterly* 22(2). Available at: http://www.niso.org/apps/group_public/download.php/4239/CR_Goertzen_E-Res_webinar_isqv22no2..pdf (Accessed 10 April 2018).
- Madden, A.D. 2000. A definition of information. *Aslib Proceedings* 52(9): 343-349. <https://doi.org/10.1108/EUM0000000007027>.
- Majumder, K. 2016. Article types that journals publish: a guide for early career researchers. Available at: <https://www.editage.com/insights/6-article-types-that-journals-publish-a-guide-for-early-career-researchers> (Accessed 13 March 2018).
- May, P. 2015. PDF format preservation assessment. The British Library's PDF Preservation Assessment. Available at: http://wiki.dpconline.org/images/5/51/PDF_Assessmentv1.2_external.pdf (Accessed 15 March 2018).
- McCreadie, M. & Rice, R.E. 1999. Trends in analysing access to information. Part I: cross-

- disciplinary conceptualizations of access. *Information Processing and Management* 35(1): 45-76.
[https://doi.org/10.1016/S0306-4573\(98\)00037-5](https://doi.org/10.1016/S0306-4573(98)00037-5).
- New Zealand Public Records Act 2005. 2017. Recordkeeping requirements: Meaning of Record. Part 1, Section 4, page 9. Available at:
[file:///C:/Users/boaei/Downloads/Public%20Records%20Act%202005%20\(1\).pdf](file:///C:/Users/boaei/Downloads/Public%20Records%20Act%202005%20(1).pdf)
(Accessed 13 May 2018).
- Oliver, G. & Foscarini, F. 2014. *Records management and information culture: tackling the people problem*. London: Facet Publishing.
- Oliver, G. 2017. The records perspective: a missing aspect of information literacy. *Information Research* 22(1). Available at: <http://www.informationr.net/ir/22-1/colis/colis1607.html>
(Accessed 1 June 2018).
- Oliver, G. 2011. *Organisational culture for information managers*. Oxford Cambridge: Chandos Publishing.
- Ordun˜a-Malea, E., Ortega, J.L. & Aguillo, I.F. 2014. Influence of language and file type on the web visibility of top European universities. *Aslib Journal of Information Management* 66(1): 96-116. doi: <https://doi.org/10.1108/AJIM-02-2013-0018>.
- Petersen, C.J., Pyne, D., Dawson, B., Portus, M. & Kellet, A. 2010. Movement patterns in cricket vary by both position and game format. *Journal of Sports Science* 28(1): 45-52.
<https://doi.org/10.1080/02640410903348665>.
- Quain, J.R. 1999. Name the format: Computers & Applied Science Complete. *Home Office Computing* 17(7): 96-97.
- Shenton, A.K. & Johnson, A. 2008. Young people's perspectives on 'Information' – Revisited. *IFLA Journal* 34(3): 238–255. <https://doi.org/10.1177/0340035208097225>.
- Shenton, A.K. & Hayter S. 2006. Terminology deconstruction: Phenomenographic approaches to investigating the term “information”. *Library & Information Science Research* 28(4): 563-578: <https://doi.org/10.1016/j.lisr.2006.10.003>.
- Springer. 2018. Types of articles. Available at:
<https://www.springer.com/gp/authors-editors/authorandreviewertutorials/writing-a-journal-manuscript/types-of-journal-articles/10285504> (Accessed 10 June 2018).