

Chapter 11

Document Description and Coding as Key Elements in Knowledge, Records, and Information Management

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ABSTRACT

Document description and coding are key operations to information storage and retrieval systems. Description makes it possible for users to obtain information about the documents while coding provides unique numbers to described documents, and enables users to locate, retrieve and store documents manually or electronically. Consequent upon the mass production of information and attendant information explosion, modern libraries and other information dissemination institutions, attached to various institutions, were established. A need therefore arose to put in place systems of achieving bibliographic control over the information produced and collected to facilitate its identification and location wherever it may be found. Among the major systems or tools that information professionals developed to achieve bibliographic control and organization of information include: cataloguing, classification, indexing and abstracting. Using largely documentary sources, the chapter makes a case on the critical role of document description and coding systems in information and knowledge management.

INTRODUCTION

Categorizing and description of objects and other physical entities are as old as the existence of humanity. It is through description and coding of things that humanity is able to identify and characterize them. All the things that are perceived and used, either in homes or outside the home; things made by humans or natural objects such as living and non-living things, are easily identified because they have been catego-

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rised, described and coded. Assigning names to people and objects is in fact, an act of description. This chapter discusses the role of document description and coding in information and knowledge management.

GENESIS OF DOCUMENT DESCRIPTION AND CODING

Document description and coding can be traced to two major factors namely: the invention of writing, and the establishment of information and knowledge management institutions. These two indices are briefly described below to provide the context for document description and coding.

Invention of Writing

The first major factor responsible for the development of document description and coding tools can be traced to the invention of writing, as explained by Burke and Ornstein (1995) and Schmandt-Besserat (1982) and chronicled below:

- Writing initially involved coding human sound into pictures. This led to picture ‘writing’ demonstrated in rock paintings all over the world;
- Picture writings coded into symbols that evolved into letters and numbers used for communication in writing. Alphabet and number systems evolved from these symbols;
- The invention of alphabet and number systems standardized the symbols used to represent letters and numbers; and
- Standardization of letters and numbers, through the invention of alphabets and number systems, enable people using a particular alphabet or number system to communicate in a standardized manner.

Early writing was achieved by using various writing implements and storage media. Writing tools included various types of styluses or brushes and other predecessors of the modern writing pens and different types of inks and paints that were used to achieve writing on a surface of objects such as papyrus scrolls, animal skins, parchment, wood, stone, etc. (American Printing History Association, 2016).

The next development in the evolution of the technology of recording and production of information was the invention of printing. Printing essentially involved transferring the writing symbols (letters of the alphabet or numbers) onto a mechanical device. Printing was achieved by dipping the key containing the writing symbol (number, letter or punctuation mark) into a pad of ink and pressing it against a printing surface such as parchment, animal skin, etc. The invention of printing was significant because it mechanized writing (Prepressure, 2012; American Printing History Association, 2016).

Another milestone in the production of information materials came with the invention of the movable type in the far East, as well as Europe. For instance, Johannes Gutenberg, a German inventor and industrialist, is generally credited for having invented the first movable type in the 1450’s in Europe (Prepressure, 2012). The invention of the movable type represented the mechanization of printing. Printing revolutionized the production and communication of information materials in the sense that it fostered mass production of information whose circulation cut across national boundaries.

As information production technologies based on the movable type improved, so did the rate of information production, increase. This phenomenon of mass production of information in the 1800s and 1900s

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