

## **Editor -in-chief's Note**

# **Content Management in The Knowledge Age: Why We Launched International Journal of Digital Content Management (IJDCM).**

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### **Abstract**

Advances in information and communication technology (ICT) have accelerated the transformation process of entities from physical to more conceptual formalities. Entering the world of concepts, on the one hand, has transformed the relations between beings, and on the other hand, has facilitated the grounds for fundamental changes in human communication. A twenty-first-century person is a semantic human being who, along with all physical conceptions of the phenomena in his life, has also a virtual and semantic conception in his mind. The semantic embodiment of all phenomena has caused emotions, feelings, interactions, businesses, etc. to become multifaceted phenomena. E-learning, e-commerce, virtual meetings, virtual stores, etc. all represent the emergence of another sphere within the physical world. This world is the world of meanings and concepts. The world of meanings is closely related to content. A human being on the earth without an electronic identity and without the presence in electronic spaces is gradually becoming unthinkable. The advent of cyberspace has more to do with the concept of digitalization. No entity can enter cyberspace without digitization. The first condition for being in cyberspace is to have a virtual alternative. If any books, magazines, persons, schools, universities, governments, associations, and any other entities, is to appear in the virtual world, they must first be digitized. For this reason, digitalization and digital content management is a constant issue in the age of knowledge. In this article, which was specifically written on the occasion of the first issue of the International Journal of Digital Content Management (IJDCM), an attempt has been made to elaborate on the evolution of digital content and to provide a framework for content management in the knowledge. The key concepts mentioned in the article are also meant as indicators of the content orientation of the journal.

**Keywords:** Digital transformation, Digital content, Digital content development, Knowledge age, Framework.

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## **Introduction**

Efforts to remove physical restrictions of content communication have been underway since the early stages of human socialization. The invention of a variety of tools and devices for communication, from smoke to the telegraph signs and the current binary digits, all represent a continuous process of trying to send content from source to target. In all tools, the greatest emphasis is placed on removing physical constraints and facilitating message flow. Such efforts have led to the emergence of the digital era which has revolutionized the physical transformation of meaning. Regardless of the scope of digitalization, today its importance can be seen in all aspects of our life. Sending messages from the Earth to space crafts, exchanging e-mails between countries, publishing books and magazines on the web and not to mention millions of applications are just to name a few of the latest developments made possible through digitalization. Meanwhile, by using digital formats, the production and spread rate of messages, content has considerably multiplied. Everyone can easily publish their desired content; Businesses introduce themselves; The multimedia content of training courses in universities and educational institutions is easily accessible. In fact, digitalization has created multimedia capability. Virtual reality, simulated objects, and dozens of other developments show the place of digitalization in the modern civilization. All the changes and advances that have been made in the field of digital content emphasize the importance of their management. Unmanaged content will be like a stream of water that will turn into a roaring flood and destroy its surrounding entities. But managed content, like guided clear water, will give life to the social sphere of human beings. Digital content management is a necessity of the knowledge age. Unmanaged content can cause anxiety, waste of time, waste of energy and a decrease of productivity.

## **The basics of digital content management**

Digital content management is the process of converting or creating, controlling, organizing, structuring, and making digital objects accessible. Any action under any subsets of this process will be acceptable as a subset of digital content management. Digital content management is multifaceted. Such nature of digital content refers both to the multiplicity of creators and to its formats and applications. Today's digital content is multimedia, multifunctional, and

multidimensional, which makes its management a multidimensional and multifactorial process. One part of digital content management is related to the production process, another part is related to the processes of organizing and restructuring. In addition, an important part of the actors' attention is focused on managing the accessibility of the created content. In addition to all these issues, there are issues such as intellectual property rights, content security, use of content as well as content conversion. Hence, the evolution of digital content as an important part of the global digital evolution is a real facilitator for digital humanity. Optimal digital content management will help facilitate digital transformation and the effectiveness of digital humanity.

### **Transformation or creation**

The first steps in the virtual world began with the conversion of analogue to digital content. The problems encountered during this period were mostly related to the speed and accuracy of transformation, character identification, and intellectual property rights. Cultural issues and society's attitudes towards digital objects also manifested themselves over time. For example, no one had an idea of digital money, and not even digital publications were well recognized and valued. After the popularization of digitalization, the nature of issues and problems also changed; they changed from becoming to creating digital objects. Today, although the issues and problems of converting analogue resources to digital ones still do matter, issues related to the creation of digital content are more significant. Some of the issues in this area are:

- Competence of digital content creators,
- Content creation formats,
- Tools and technologies used to create digital content,
- Goals and objectives of content creation,
- The structural status of the content
- The stability of the created content
- Respect for property and rights in creating content

Paying attention to these issues and finding a comprehensive and operational solution to optimize and improve the current situation have provided a suitable platform for in-depth and extensive studies. Creating credible knowledge in this field and disseminating it among stakeholders is very attractive.

### **Controlling**

The word control is quite general, and yet a technical term. As with print content, there are meticulous technical processes to ensure the quality of the final product, as with digital content, this seems to be overlooked. One might think that due to the ease of producing digital content and the prevalence of self-publishing alternatives, there is no need to control the digital content. However, digital content needs more control in terms of technology and quality assurance and compatibility. Various forums have tried to provide frameworks for producing usable digital content, but this is an endless and growing path. The addition of multimedia features to digital content has increased the need for quality control. Some issues related to digital content control include:

- Integration
- Compliance with special standards
- Compatibility in interaction with hardware
- Device-independence
- Display Convenience
- Compatibility with various applications
- Usability in offline and online intercultural environments
- Content structure

In the absence of controllability of digital content, ensuring its usability by the end users will face a serious question. The most important way to avoid post-release problems is to carefully control the quality of the creation process. Digital content is a constant dynamic asset. For that reason, we have to manage it.

### **Organizing**

In recent years, a significant portion of digital content created and published by users on websites, blogs, social networks and personal pages has disappeared in the tsunami of disorganized content. The main reason for this is deemed to be the lack of organization. Unorganized digital content is unruly and uncontrollable. Of course, organizing digital content does not necessarily mean cataloging or indexing it manually. Rather, it is the organization of digital content into a set of systematic operations and procedures to conform content to specific guidelines and standards. Creating consistency and cohesion in contents can help manage them. Unorganized content is ignored by search engines and modern systems. This is why a very

important part of digital content is buried under a pile of unused information. Issues that can be considered in the field of digital content organization are:

- Setting standards and instructions
- Facilitating organization during production
- Automation and smartening of the organizing process
- Organizing independently of humans?
- Utilization of auxiliary tools such as thesauri, ontologies and taxonomies
- Diversification of tools with the aim of including organizational and personal needs
- Popularization of content organization
- Organizing multimedia resources
- Establishing connection between different representations of the content

Organization can be considered as the heart of the content management system. To organize, serious cooperation between different disciplines need to be started and pursued. A multifaceted view of organizing and deploying diverse and facilitative approaches to integrating tools and applications will lead to the development of organizational capability to meet growing needs.

### **Structuring**

Many digital resources do not follow a specific structure. If books, articles, and some official content, such as newspapers and news, are an exceptions, the major part of digital resources is often considered as unstructured content. The fact is that in the age of social media and the rapid acceleration of popular content, the question of structure and the need for content creators to adhere to it may seem difficult and impossible, but if we look at it in terms of usage and effectiveness, the existence of structure will be necessary. But the important thing is that asking people or hiring experts to structure digital content is difficult and even impossible. To do this, intelligence and learning factors must be used. Some of the issues pertinent to structuring are as follows:

- Content recognition
- Definition and revision of flexible structures
- Development of intelligent agents with the ability to correct errors
- Merging and representing scattered content again

- Suggesting extensions for users
- Machine learning of content-based systems
- Integration of structures with social networking tools
- Evaluating and reviewing operational structures

Segmentation is as an attempt to systematize the body of digital content. Excessive emphasis on structure may damage the innovative spirit of content creators and oversize machine uniformity over the diverse and aesthetic sphere of digital content. Achieving a balance between structure and innovative diversity is vital.

### **Accessibility**

The created content will be effective only if it is available and used. Having diverse access points that meet the needs and expectations of end users helps to improve the use of digital content. Improving utilization is directly related to availability. Accessibility involves two different paths: first, accessibility for users, and second, accessibility for machines. Both paths ultimately lead to the effectiveness of digital content. Research into availability in universities and research and development centers has been going on for many years. But many serious and unresolved issues remain. Availability of the content can have a high potentiality for value creation. Accessibility depends on the capabilities of users, features and options of systems, as well as the ability of creators to communicate with users. Major issues related to availability are:

- Distributed accessibility and its challenges
- Software and hardware capabilities of users
- Ownership against access?
- Content convertibility after access
- Tracking visibility and usage
- Making connections between similar and related content
- Integration of linked data and various representations
- Dynamic content prioritization to help users make decisions

Although access is defined as the last point of the digital content management process, It should be considered as the starting point for the journey of digital content. Trying to create a chain with constructive repetition can enhance the value creation of the content produced. An important part of content-orientated innovations depends on the level and type of access and subsequent applications.

**International Journal of Digital Content Management**

At the International Journal of Digital Content Management, we seek to create a platform for disseminating interesting and practical findings so that we can help lay the groundwork for solutions to the existing problems. Our participation in theory is as valuable as our participation in practice. Balancing theory and practice is one of the journal's most important strategies. We started the interdisciplinary look at content management from the same editorial board. We want to head for the distant horizons with small but multifaceted and multicultural steps. The Journal of Digital Content Management wishes to be a bridge between theory and practice. We make attempts to connect universities, research and development centers, and the workplace together in a shared network. Bridging existing gaps and enabling dissemination of valuable scientific findings is one of our most important aspirations and goals.

A variety of publications including journals are published on topics related to the digital resources and their management, IJDCM seeks to make differentiation based on the type of view and the type of communication between opinions and facts. It strives to take into consideration three levels of perspectives: a) theory, b) applications and solutions, and c) case studies. In addition to these three general categories, the content of which we will process and publish as original research articles, IJDCM will not neglect to critique the ideas, works and shorts of trucks?. We are in the process of building a better future for the generations of the age of knowledge. To this end, we seek the help of all scientists, researchers, experts and those interested in digital content management. We are sure that with your help, and that of the esteemed members of the editorial board and executive colleagues, the above-mentioned goals can possibly be achieved.

