

**Title:** “Ecological Knowledge Management for the Arts and Culture Industry in the Digital Era”

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## **Abstract**

Knowledge Management (KM) is a field that has attracted much attention both in academic and industrial circles. Most KM projects appear to be primarily concerned with knowledge that can be quantified , captured, codified and stored , an approach more deserving of the label of Information Management. The traditional view of organizational systems and supporting information and knowledge systems is based on the model of a well-oiled machine expected to deliver optimum performance derived from pre-defined parameters and specifications. Recently a new approach in KM rises and blossoms - as a reaction to the social impact of Web2.0 – the Ecological one which claims that the development of knowledge is similar to ecological systems in the sense that it deals with development and computability to the environment, hence knowledge is an outcome of the interactions among technologies, environments, experiences and values. Cultural institutions have been implementing the traditional KM approach mainly for, internal facing purposes (e.g. archiving, documentation, inventor management. and structured education arrays).

The Web 2.0 in general and the technological social platforms in particular may enforce these institutions to consider the ecological approach which relates to the social media as an emerging and most significant resource of knowledge .

In this paper, we review the current state of practice of KM in Museums and Cultural Institutions, ongoing strategies, internal and external challenges, the social technological platforms as being demonstrated in the Web 2.0 environment and its derivatives (e.g. Social media) and provide potential solutions and approaches via the Ecological KM concept: process and technological wise.

## Background

Roman Ingarden claims in the " *The Ontology of the Work of Art*", that the cultural object has different existence conditions comparing to the real thing, as its very existence and survival are depended on human intentions and attitudes. Ingarden believes that the survival of cultural objects deepened on an- going continues interaction of them by the community. In other words it can be claimed that the distinction between a physical object and a cultural one are being emphasized by different yet appropriate ways of human behavior. The main idea in the phonological concept of Ingarden regarding Arts is the difference between an artistic and aesthetic object. A piece of Art is one of a kind it exists in an objective manner in every form or format The aesthetic object is an outcome of the artistic one and it is created by the viewer weather he is a visitor in museum or a director of a play in the theatre. The operation of the viewer is active, not passive and does not end in observation. It includes creation, synthesis, completions and fulfilling the artistic object into an aesthetic one much fuller and by far richer. The main criticism against this approach is based on the realistic assumption that the capability to generate an apocopate attitude towards an object via a political, religious and other manners is rather challenging. In some sense it seems as though Ingardnen's claims, which were stated during the first half of the 20<sup>th</sup> century, are relevant and accurate to the set of conflicts and opinions regarding the triangle of Objects , Internet and Social impact, which are spreader out today.

Browsing in the intent provides a mixture of activism and passivism. While the activism is comparable to reading a book where the reader controls the order of the contents and the speed of reading the passivism is similar to a movie in the sense that the creator determines the pace and order while remaining the spectator a minimal room for imagination and creativity. Hence Browsing in the Internet is analogous to a book reading since the viewer controls both pace and direction although it has a passive element since it is exposed to inconsistent and unexpected pieces of knowledge which are subset to the patterns of browsing.

The first interaction between a subject and an object is via the perception and given the frequent technological changes which influence our ongoing daily life and our knowledge universes in the Web, quality and quantity wise the issue which ascends instantly is the impact of this interaction on the knowledge associated with cultural objects. Is there a mixture in knowledge between the object and the subject regarding its composing, proprietary rights and attribution and how does the new parameters and rules in the virtual world influence this type of occurrences?

## **Ecological Knowledge Management Principles**

The paradigm of information systems developed around optimization driven focus on effectiveness was adequate for the Industrial era. However the verity of operational environments influenced enormously by the technological era in general and the Internet in particular have exposed serious limitations to the traditional information systems and as an outcome to the Knowledge Management concepts related to it.

The Information ecology is an organization's information environment that consists of the numerous interacting and independent social, cultural and political subsystems which shape the creation, the flow, and the use of knowledge.

Ecological knowledge management focuses mainly on social network in contrast to the traditional one, which deals with technology and information networks. Since the ecological concept is based on people the transition of knowledge is via exchanges and relationship, thus the eco system seeks to understand the patterns of these exchanges on top of the information itself. The ecological knowledge management does not strive to unify the information; on the contrary it relates to the diversification as a given input and seeks to collaborate among them all. Knowledge ecology treats knowledge creation as an interactive revolutionary dynamic process where it composes and re composes on an going basis by its ProCumers - (Producers & Consumers)

## **Web 2.0 and the Social impact on Museums**

Social media has become a significant and influential part of our modern civilization. With Facebook, Twitter, Google+ and other social networks we have become much aware of the world we are living in and this is one of the changes being talked about. Social network have contributed to create a whole new world where we are free to express our opinion and share it with our friends and peers. This world of social media gives scope to everyone to create, recreate, collaborate, and store knowledge in the form of thoughts, feelings and opinions.

The social media has defiantly changed our lives in ways, which can be demonstrated in several aspects and impacts. Social media has increased interaction by such a massive scale that is hard not to notice it. Once it comes to learning Social media has also played a large part in fostering literacy. This is an encouraging trend, and thanks to the huge availability of information such as education portals, Google arts project, Wikipedia, both simplistic and complex on the internet, anyone can become as smart or intelligent as they desire.

Social media has enabled greater political awareness and organization, which has in some cases rewritten entire political landscapes as well as becoming an important source of news even though in some cases the credibility of the sources is a bit challenging.

Last but not least the whole dynamics of marketing have been changed, and rather than investing in traditional activities, organizations are becoming more consumer-centered through interactions made over social media. They are able to understand the needs of the market from the market itself, greatly altering the way marketing has been done in the past.

The adoption of social media became important agenda throughout the museum sector. When executed correctly, the results are extremely beneficial to a museum or any other cultural institution. Social media can provide a platform for marketing activities, such as broadcasting posting campaigning and branding the museum. Social media in museums is being planned, budgeted, managed, executed and controlled by the marketing organization hence the enormous amount of content owned by other knowledge centers within the museum are not presented nor collaborated or integrated thus the museum misses an outstanding opportunity to leverage its knowledge

## **Guidelines for implementing an Ecological KM solution in a Museums**

A traditional KM solution within an organization is compound of four main elements: Content, technological infrastructure, organizational culture and the knowledge process. The foundations of an ecological Knowledge Management solution within a museum are being classified based upon this methodology still several major constrains due to the social impact need to be addressed once this solution is being planned and implanted.

The Eco solution for a museum should be associative rather then linear and it should relate to the three traditional knowledge bases : Administration, Archie and Curatorship but prioritize equally the new knowledge base the social media., The knowledge path may have a beginning but it defiantly has no end , it id structured of endless junctions and browsing via them provides surprises and disappointments, expected and unexpected outputs. The new content is a result of consolidation of old and new , real and virtual , professional and amateur, organized and unstructured, unified and fragmented. It should apply to all stakeholders in an open tolerant manner.

Once it comes to the technological infrastructure planning and implementing an Eco KM solution is challenging yet doable. The concept should be up to date it should be able to respond to the frequent changes by adapting new technologies and concepts such as open source, Saas &

cloud and Agile project management approach. The technology needs to be able to treat the knowledge as a unified entity while enabling fragmentation, consider ruling, internal procedures and regulation while being attentive to the social technology requirements.

Moreover The Eco Knowledge system enables the museums to fulfil their operational goals by providing indications based on knowledge analysis about a variety of issues such as content patterns per a specific cultural object or enabling the public to be a part of the curators team by creating content or providing feedbacks.

Last but defiantly not least, the must condition for a successful Eco KM solution in a museum is the acceptance and recognition that the Social media is here and for good. Understanding and internalizing that avoiding this phenomenon will generate severe and chronic damages, while adapting it will improve all the parameters and will contribute to its survival and success in a significant manner.

## Conclusions

The Internet converts knowledge from a form of ownership into accessibility. The virtual universe blurs the borders which are being redefined and influence in a direct manner on the interaction between a subject and an object. Reflecting these assumption regarding cultural objects in the Web leads to the conclusion that as opposed to the past when spectatorship was experienced in a materialistic, structured and linear manner the social networks converted it to a dynamic active associative attitude.

Museums are relating to the social networks as a marketing entity, hence the information gathered in the new media is not treated as a document but more as an inferior piece of knowledge.

The social impact of the Web2.0 which strengthen the social network and reinforces the spectator, weather he is facing the cultural object in a frontal manner or on a virtual one bundled with the operational constrains of Museums leave them no choice rather then adapt themselves to this reality and relate to this knowledge accordingly and respectfully.

The Ecological Knowledge Management approach is an appropriate candidate to contend with these challenges due to its capabilities to include the traditional documentation requirements while its given potential to cope successfully with the new media impacts. Adapting and implementing the eco approach may be considered as a must condition to the survival and success of the "New Museum".

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