

## **IMAGE VISION**

# **FORGING A NATIONAL IMAGE ALLIANCE**

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This paper frames some of the current issues surrounding the storage, transmission, and use of digital images, specifically those which are images of objects or non-textural images. The paper calls for the creation of a National Image Alliance to deal with these issues.

Current technology is on the brink of making digital images easily available via the Internet or its successor. Desktop equipment is readily available to display images, and the necessary bandwidth will likely be available for the widespread transmission of images. Many organizations are already involved in converting image collections to digital form, and increasingly digital images are being captured initially through products like Kodak's Photo CD. Tools such as Mosaic make images integral parts of electronic publication and more accessible to users. Multimedia promises to advance the use of images even more broadly.

Traditional image collections in colleges and universities reside in the archives, and the departments of architecture, art and art history. Also, numerous faculty have private image collections on a wide range of topics from history to biology which they use in their teaching or research. These collections are very labor intensive to manage and use, and they are often inaccessible to a broad base of users. Students often have difficulty accessing images outside the classroom for review. New attention given to teaching and learning via technology will likely heighten the use of images in the teaching and learning process.

The museum and archival communities have vast stores of images which are inaccessible to the majority of users due to resources available to display them, or the limitations physical proximity. Electronic access to these collections via networks promises to unlock tremendous stores of our artistic and cultural heritage for countless students and scholars.

There already exists a large commercial store of images from stock images such as Kodak's Picture Exchange to exotic images of the National Geographic's collection to the inventory of commercial photographers and publishers. The medical and scientific fields produce massive numbers of images annually.

Common issues and challenges facing these organizations, communities, and institutions include standards, access, cataloging, and intellectual property rights.

## **STANDARDS**

Many current image digitizing projects are underway. Although there are a number of accepted capture and storage standards, no one is accepted as the single standard. Various formats offer varying quality of display or printing options. Each advance of technology brings new ways of storing and displaying images. Considering the number of current projects and future digitizing projects, a common set of standards needs to be accepted by these disparate communities.

## **ACCESS TO IMAGES**

In the bibliographic world, the OCLC database exceeds thirty million records. Description of bibliographic items have a long history of refinement, standardization, and acceptance. Textual information is described similarly no matter what its subject content.

In contrast, the number of bibliographic items pales when compared to the number of unique images which exist, and there are no standards or accepted means to describe images across subject disciplines. The art community has developed several descriptive standards for images which are very detailed; however, these same standards are not or cannot be applied to images in other fields. Description of images from the medical field or astronomy need a very different set of descriptors. In the art and photographic world, image description not only needs to describe the primary object represented by the image, it needs to describe the interrelationships of objects within the image field and the provenance or conditions of the image's creation. Some users expect image description to extend beyond the description of the represented object to the feelings or emotions created within the viewer. The National Geographic commonly gets requests for photos which denote specific moods or values. Developing standards of description for multiple disciplines is one of the major challenges for the image community.

Although the MARC record may prove to be an acceptable method of storing and retrieving image descriptions, there does not seem to be a broad acceptance of this format by other communities at this time. Many sectors of the image community which are not connected to the library field are using a wide variety of descriptive data storage formats. Retrieval software created for bibliographic records will likely prove to be inadequate for the retrieval of images. The likelihood that LC subject headings will be ineffective is even greater. Much more advanced retrieval software will need to be developed to effectively retrieve images descriptions from databases of millions of items.

Because of the vast numbers of images, image cataloging may need to be established first at the collection level, and only later at the item level. In the library field, access to the contents of monographs still does not exist and only recently is there access to the contents of periodicals in electronic format. Even at the collection level, descriptors are needed not only of the general contents, but of the storage format and retrieval methods. Currently, there is no agreement on how we should proceed whether it be at the item level or the collection level or both depending on the nature of the collection.

Establishing standards for software to display and manipulate images is another area needing agreement and development which the diverse image community must address. Common descriptors need to be developed, so that individuals from disparate fields can gain access and manipulate images outside of their own field.

## **UNION CATALOG OF IMAGES**

Imagelib-L already lists image digitizing projects; however, assuming that eventually there will be millions of images available via the Internet, the creation of a union list of images giving their location seems necessary and desirable. Whether a single search engine can work to retrieve images across disciplines remains to be seen. Unlike books and print materials which can exist in multiple locations and in various editions, the majority of images are unique. Although there will be a relatively small core of commonly held images, the uniqueness of images changes the economics of a shared database. For instance, the economic factor supporting a union database of library holding such as OCLC's is the repeated use of bibliographic records. Only recently has reference access to the database generated a secondary revenue stream. A union database of image locations would not have the same economic advantage. It would mainly be used as a finding guide to images on the net. Therefore use charges for access images would need to be the prime economic driver of an image locator database.

## **IMAGES ON DEMAND**

Kodak has already created a image locator database for stock images. Someday in the digital networked world, the actual images will be supplied. Although this database numbers only in the thousands of images at this time, this concept could be expanded to the academic market place. Images of art and architecture which are used repeatedly by many colleges and universities could be supplied saving considerable cost.

Delivering digital images to the classroom could prove to be strong economic competitor to the labor intensive slide collections currently in use in higher education. Faculty spend hours pulling slides for lectures, and an equal amount of time is spent by slide library personnel refiling them. Wear and damage

causes significant portions of these collections to be replaced each year. A system for delivering these digital images to the classroom for display on a per use charge or license charge could become an economically viable alternative to our current slide collections and at the same time offering students improved access to images.

A locator database for non-commercial, unique, low use images may not be economically viable. Yet without such a locator database for images, full access to images via the net is unlikely. Locator databases of low use image collections from our archives and museums will likely need subsidy from governmental agencies, or the cost will be born by higher access fees to the high use images.

## **COPYRIGHT / LICENSE**

In the transition from physical to digital images, many copyright and licensing issues are similar for both images and for text. However, images do pose some unique concerns and uses. Currently slides are purchased by colleges and universities to be used repeatedly in the classroom. Can site licenses be established to allow digital images to be used in multiple locations and for a variety of uses other than publication? Is it considered publication to include a digital image in a hypertext document available via the net? How will we indicate ownership on the image itself without degrading the image? Can images be modified, and if so, how is authentication documented? These are just a few of the copyright issues to be explored.

## **ACTION AGENDA**

The owners and users of images represent a wide cross section of academic and governmental agencies, and institutions, as well as the commercial sector. These groups have no common ground for discussion or planning how to create a macrostructure to support broad access to images on the Internet. But, if we are to control, store, and access images in both an international commercial and non-commercial networked environment, we must find a way of bringing these disparate groups together to discuss the significant issues of standards, cataloging, copyright, and access to images in electronic form. Therefore, it is proposed that CNI should take on the role of forging the National Image Alliance to address and foster discussion of mutual concern to the image community.

To forge a National Image Alliance, CNI must go beyond its core membership of librarians and information professionals and involve groups from the art and art history community, museum and archive community, the scientific and medical community, as well as the commercial sector. CNI needs to create a forum for a dialogue to address the range of issues relevant to making images of objects available via the Internet. Funding needs to be sought by the major constituents to form an alliance to further the discussion on this important issue.

The fall meeting of CNI can serve as a catalyst for such an alliance.

Some of the key results from the Alliance should be:

- A forum for discussion of key issues across disparate image communities.
- The establishment of technical standards for image storage and capture.
- The establishment of descriptors for non-textual images.
- The establishment of common retrieval software standards.
- The creation of a union database of image locations either at the collection or item level.
- The development of standard license agreements between image owners and image users.

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