Extending the reach of our collective cultural heritage: The IMLS DCC Flickr Feasibility Study

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ABSTRACT
The Flickr Feasibility Study investigated the roles and processes required for a digital collection aggregator to facilitate participation of cultural heritage institutions in Web 2.0 communities. The results demonstrate that providing this service for museums, libraries, and archives can be a natural extension of aggregation activities. While the role is complicated by the varying requirements of different kinds of institutions, analysis of user interactions can guide both collection development and building of communities of interest around cultural heritage collections.

Keywords
digital collections, digital images, Flickr Commons, IMLS DCC, Web 2.0, aggregator, user-generated content, tags.

INTRODUCTION
In 2009, the IMLS Digital Collections and Content (DCC) initiative undertook the Flickr Feasibility Study (FFS) to test the viability of supporting sharing of cultural heritage content in the Web 2.0 environment. The DCC aggregation provides a single point of access to nearly all of the digital collections funded by IMLS National Leadership Grants, and selected LSTA (Library Services and Technology Act)-funded material. DCC has focused on a “pull” strategy, actively recruiting collections and providing search and browse capabilities for both collection- and item-level access. FFS implemented an additional “push” approach to public sharing of DCC images. While cultural heritage institutions have found participation in Web 2.0 communities like Flickr Commons highly beneficial (Affleck, 2007; Burgess, 2007; Freeman, 2010), little is known about the value of aggregators serving as intermediaries. This poster provides an overview of the methods and workflows applied in FFS research and development, and selected results covering: 1) challenges and benefits of providing the intermediary service, and variance across different institutions; and 2) user interactions with DCC/Flickr content—how user-generated tags and comments can enhance metadata, and use trends can inform collection development priorities.

CONTEXT
Created in 2008 as a collaborative effort between Flickr and the Library of Congress, Flickr Commons hosts images from dozens of libraries, museums, and archives, exposing and facilitating discovery of their collections and encouraging user involvement by a broad audience (Springer et al., 2008; Vaughan, 2010). However, due to a delay in gaining membership to the Commons (Tennant, 2010), the FFS initiative was begun using a Flickr Pro account and a Creative Commons licensing option, following the approach taken by the U.S. National Archives.

STUDY APPROACH
To represent the breadth of the DCC service constituency, six institutions ranging from small public libraries to large university libraries and archives were identified for participation. Across these institutions, diverse collections of historical photographs, ranging from World War II images to popular culture and local history images, were selected for contribution to Flickr. Each institution provided a different and valuable perspective on conditions for participation and the aggregator’s role.

Prototype Development
Prior to engaging with participants, current approaches to displaying and describing historical images on Flickr were analyzed. Based on this assessment and best practices, a DCC/Flickr prototype image record was developed, along with methods for post-harvest metadata processing and systematic batch uploads using the Flickr API. An approach
for mapping Dublin Core (DC) and MODS (Metadata Object Description Schema) elements into a Flickr record was developed in collaboration with participants.

**Case Studies**
A case was developed around each participating institution. Case files include: documentation of negotiations with resource developers, including image selection rationales and rights concerns; samples of candidate images and associated metadata; and transcripts from post-production phone interviews with professionals involved in developing the collection at the institution. Interview sessions covered perceived value of the service, and challenges to participating in Flickr via DCC.

**User Interaction Analysis**
Data on user interactions was gathered using Flickr Stats and systematic documentation of user comments. Use logs were assessed for frequency and concentration of interactions with sets and individual images. User comments were assessed for accuracy and potential enrichment of descriptive metadata.

**PRELIMINARY FINDINGS**
1) Rights concerns are the greatest barrier to participation, and standard Flickr options for expressing copyright, both within and outside the Commons, do not sufficiently accommodate the complexities some libraries, museums, and archives need to represent. Some libraries hesitated to promote their publicly available collections in such a popular venue due to privacy concerns, including the need to protect minority populations featured in their photos.

2) Large institutions, as well as small, currently lack infrastructure and human resources to participate in Flickr on their own at this time. However, small institutions demonstrated a greater eagerness to participate. We attribute this to a couple of factors: small institutions with very obscure collections anticipate greater benefits from exposure than large institutions with more well-known collections, and large institutions are more inhibited by organizational complexities, along with privacy and copyright concerns. Nonetheless, every institution welcomed the intermediary service, with most suggesting that the service helped them move in a positive direction much sooner than would otherwise have been possible.

3) Clear description of images requires systematic and precise reduction of metadata, and processes for populating erroneous and blank fields. Inconsistencies within metadata records (e.g. disagreement between creation dates asserted independently in DC:title and DC:date fields) become vivid in Flickr’s standardized display, drawing attention to well-documented quality problems caused by heterogeneous metadata in aggregations (Hillman, Dushay, & Phipps, 2004; Dunsire, 2008).

4) The rate of interaction with DCC images on Flickr is almost twice as high as with content on the DCC site. The DCC Flickr photostream averages about 75 hits per day, versus approximately 42 hits per day at DCC. This is likely due to the sheer volume of users that browse through Flickr’s content each day compared to users of cultural heritage sites like DCC.

5) DCC images are of particular interest to highly specialized history and popular culture communities. Users repurposed individual photos or small subsets of original collections into new collection-like entities representing niches of interest, such as groups and galleries for “Ford Farlaine/Torino”, “Historical Steamships”, “Bitterlake Seattle”, and “Old Tandems”.

**CONCLUSION**
Based on an initial discussion with Flickr Commons, the DCC Flickr service is a welcome strategy with potential for making growth more efficient. Realizing the value of the intermediary service will require further formalization of negotiation processes with institutions, refined workflows, and systematic application of results from user data. DCC expects to expand Flickr activity, applying user analysis to guide selection to extend sets, add new collections, and begin building new curated photosets (Flickr Galleries) combining DCC and Flickr content.

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**REFERENCES**