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Proposal for Image Meta-Data Standard

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Description: Proposal to devise an image meta-data standard to handle
                copyright, attribution, provenance, and the identification of
                historical subjects, including their position.

Keywords: Images, copyright, Attribution, Metadata

Contents

1. Abstract

By the incorporation of namespaced XML into an image, enable the recording of attribution statements, copyright statements, provenance history (possibly), and links to identified subjects (such as people in genealogical databases).

By the embedding of SVG into that XML meta-data, link the positions of the subjects in an image to their descriptions and corresponding external links.

By using the same SVG "wire frame" concept, link parts of manuscript text to an embedded transcription, including the identification of transcription anomalies.

2. Proposal

There may be standards for embedding a date, place, and description into a digitised photograph, but I am unaware of any that can be used reliably for historical images. Such date and place descriptions should mirror the guidelines that FHISO will incorporate into its genealogical data model, and so be applicable for older dates and calendars, and older place designations.

Images are shared at an incredible rate on the Internet, and it doesn't take long before there is no connection between a given copy and its original source. A simple meta-data location for an attribution and/or copyright statement would enable them to follow normal digital copies, and for compliant software to display these for information purposes (see below).

When software allows images to be copied or downloaded under its own control, an embedded list of those operations (e.g. "Downloaded by <user> on <date") could be updated to record the provenance of each such copy. This may be controversial but it is mentioned here because it would be a possibility.

The subjects of an image — usually, but not always, the visible people — could be identified in the meta-data. This, too, should mirror such guidelines as devised during FHISO's genealogical data standard. This should provide at least the personal name; other data such as date-of-birth and lineage could be optional or identified by some external link.

An SVG contribution could be embedded into images that defined a notional "wire frame" that compliant software could optionally overlay on the displayed image. That SVG could use a simple label mechanism to connect each visible subject to its description in the local meta-data — a little like being "tagged" in Facebook.

The same "wire frame" concept could be used to link an image of manuscript text to an embedded transcription, including anomalies such as uncertain characters, uncertain words, corrections, inter-/intra-linear notes, etc. This could be used by compliant software to display the image and transcription side-by-side in a linked fashion, as some specialised transcription programs already do.

The best way to embed all these types of meta-data would be using a namespaced piece of XML, and the XMP format (otherwise known as ISO 16684-1:2012) already supports this in a variety of image formats. Adoption of XMP may be controversial because of its proprietary (Adobe) origins. Also, some sites still use the DjVu image format for which XMP support is still only proposed.

3. Rationale

This proposed FHISO data standard is distinguished from other proposed ones in that (a) it is not directly dependent on any other FHISO standard, (b) it is not dependent upon any legacy genealogical format (such as GEDCOM), and (c) it would have a clear and immediate benefit to organisations who deal with online digital images.

As such, it may entice such organisations to collaborate within FHISO.

4. Not Covered or Not Required

The proposal does not suggest that a bullet-proof copyright mechanism be implemented; merely that any embedded attribution and copyright messages be displayed for information purposes only.

Although the proposal suggests an XML contribution, either using XMP or an XMP-like mechanism, they are still just suggestions. Other schemes may work just as well.

The nature of the external links for historical subjects (including places) is not defined here. They could be defined in a generic and extensible way similar to STEMMA's namespaced <ExtId> element-value, and embrace database record IDs, URLs, and anything else that may be necessary.

5. Use Cases

When digital photographic images are displayed on a genealogical Web site, attribution to the original owner can be displayed for all normal copies of it. If a specific copyright applies then an informational message can also be displayed.

If the image contains a group of people then the meta-data can locate each of them via an optional "wire frame" that can be overlaid on it. That wire frame can link to information on each of the people in the respective family tree. Even when their details are inside some separate system, information can be provided that would allow them to be located, such as a URL or some database record ID.

When a genealogical site provides images of census pages, the same wire frame concept can be used to delineate each person in the corresponding household or institution, and connect them to corresponding transcriptions of those entries. It may be possible to connect each entry to associated people in a user's private tree, too, but such a mechanism would require a user-defined contribution that is separate from the main image as provided by the site.

6. Recommendation

Because of the tangible relevance of this proposal to many vendors, and not just those founding member organisations of FHISO, I recommend that a copy of this proposal (or some derivative of it) be communicated to them directly, emphasising that their involvement and inputs would be crucial to it become an effective standard.

7. References

Extensible Metadata Platform (XMP), http://en.wikipedia.org/wiki/Extensible_Metadata_Platform.

Scalable Vector Graphics (SVG), http://en.wikipedia.org/wiki/Scalable_Vector_Graphics.