Social Tagging: Implications for Cultural Heritage Professionals

Susan Chun
Founder, Steve.Museum
Who is Steve?

- **Steve** is a collaborative project, formed in 2005, dedicated to exploring the effectiveness of social tagging for accessing art museum collections online and engaging audiences.
Who is Steve?

- Founded in 2005 as a volunteer effort
- Funded as a research project by an IMLS National Leadership Grant in 2006
- Re-funded by IMLS for research activities in 2008, as well as implementation work
Chipstone Foundation
Cleveland Museum of Art
Denver Art Museum
Guggenheim Museum
Los Angeles County Museum of Art
Indianapolis Museum of Art
The Metropolitan Museum of Art
Minneapolis Institute of Arts
Minnesota Digital Library
Rubin Museum of Art
San Francisco Museum of Modern Art
Smithsonian American Art Museum
UCLA Graduate School of Education and Information Studies
Walker Art Center

Funding: Institute of Museum and Library Services

Listserv Participants: 350 active members

Archives and Museum Informatics
Susan Chun, Independent Consultant
New Media Consortium
Taxonomy Strategies
Think Design
University of Maryland, CLiMB Project
Welcome to the Steve Project

Steve is a collaboration of museum professionals and others who believe that social tagging may provide profound new ways to describe and access museum collections and encourage visitor engagement with museum objects. Our activities include researching social tagging and museum collections; developing open source software tools for tagging collections and managing tags; and engaging in discussion and outreach with members of the museum community who are interested in implementing social tagging for their own collections.

Steve as Research

The project team is engaged in systematic research into how social tagging can best serve the museum community and its visitors. The research is currently funded, in part, by a National Leadership Grant from the U.S. Institute of Museum and Library Sciences. Data collected at http://tagger.steve.museum provides a testbed for researching our hypotheses about social tagging.

Steve as Software

To support our research, the Steve team has developed a suite of open source tagging tools. The Steve Tagger tool is available for download at the project’s SourceForge site, and members of the community are encouraged to download and install the tool. At its core, the tagger is a PHP web application that can publish a basic online collection and record tags. The project has issued a rich API that allows the integration of the tagger tool with existing projects and supports new development efforts. By itself, tagging is not technically difficult, but it is our intention to provide a easily-deployed common platform to allow users to share the costs of future tool development.

Steve in Action

The Steve Tagger has been implemented in a number of places in a variety of ways. The “Steve in Action” section of the site showcases some of the deployments of the Steve Tagger software, and provides links and case studies. More information about Steve Tagger deployments can be found in the “Steve in Action” Forum, where prospective adopters of the software can talk to colleagues who have already implemented the Steve tools about how they use the software.

About Steve

The site’s FAQs answer your questions about who we are, how to contact us, and how you can participate in our work.

http://www.steve.museum
Why study social tagging?
Every participant had a different answer

- Can tagging help users find art more easily?
- Can tagging change the way users look at and engage with art?
- Can tagging help museums understand what visitors see and understand?
From: J. P. xxxxxx@xxxxxx.com
Date: Sat, 26 Aug 2006 11:24:43 -0700
To: timeline@metmuseum.org
Subject: Looking for a painting

Please help:

I have been looking on and off for years for this painting. The painting is of a very well dressed renaissance man standing in a room (a library) in front of him on a table is a large hour glass. The painting has very rich colors. I have talked to a lot of people and they have said they have seen this painting but can't remember its name or the name of the artist.

Could you please use your resources to find this painting?
What “J. P.” knows:

- painting
- Renaissance
- standing
- man
- very well
dressed
- library
- hourglass
- table
- rich colors

What a Met curator knows:

**Portrait of a Man**, ca. 1520–25

Moretto da Brescia (Alessandro Bonvicino) (Italian, Brescian, born about 1498, died 1554)

Oil on canvas; 34 1/4 x 32 in. (87 x 81.3 cm)

Rogers Fund, 1928 (28.79)

Provenance: Maffei, Brescia (by 1760, as "Ritratto d'uomo con carta in mano, ed Orologio, di Callisto da Lodi"); by descent to contessa Beatrice Erizzo Maffei Fenaroli Avogadro, Palazzo Fenaroli, Brescia (by 1853–at least 1857, as by Moretto); her daughter, contessa Maria Livia Fenaroli Avogadro, later marchesa Fassati, Brescia (in 1862); her son, marchese Ippolito Fassati, Milan (by 1878–at least 1912); [Elia Volpi, Florence, by 1915–16; sold to Knoedler]; [Knoedler, New York, 1916–28; sold to MMA]
Why a research project?

- What conditions yield the most useful and accurate descriptions of artworks?
- What interfaces provide the most engaging user experience?
- Who should tag?
- Which works should be tagged?
What has Steve been up to?

• Steve has completed a two-year IMLS-funded research project.
• Steve has begun two new three-year IMLS-funded projects.
• Steve has released open source software to help other museums use social tagging tools.
steve’s Tools
The steve tagger: an open-source, configurable tag collection environment
Available for download at SourceForge.net
The steve term review tool: a tool for reviewing and annotating tags--and for listening to visitors

### Steve Term Review

**17 Terms**

<table>
<thead>
<tr>
<th>Term</th>
<th>Rating</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>women</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>pigs</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>woman feeding pig</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>do do</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>feeding animals</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>work</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>nuns</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>farmyard</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>modernist</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>apron</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>two pigs</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>white veil</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>strawberries</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>water trough</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>man pretending to be pig</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>bare feet</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
<tr>
<td>Emile Bernard</td>
<td>![Rating Icons]</td>
<td>![Note Icons]</td>
</tr>
</tbody>
</table>

Bernard, Emile, 1868-1941
*Femmes au porcs (Women with Pigs)*
1889, zingograph with hand-coloring
The steve reporting suite: allowing us to review and analyze the data

### Steve Reports: Termset 2

#### AAT Analysis

<table>
<thead>
<tr>
<th>Description</th>
<th>all</th>
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<tbody>
<tr>
<td>aat matches (count)</td>
<td>15200</td>
</tr>
<tr>
<td>aat matches (percent)</td>
<td>59.6755</td>
</tr>
<tr>
<td>aat matches (list)</td>
<td>...</td>
</tr>
<tr>
<td>aat non-matches (list)</td>
<td>...</td>
</tr>
</tbody>
</table>

#### ULAN Analysis

<table>
<thead>
<tr>
<th>Description</th>
<th>all</th>
</tr>
</thead>
<tbody>
<tr>
<td>ulan matches (count)</td>
<td>597</td>
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<tr>
<td>ulan matches (percent)</td>
<td>2.3517</td>
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<tr>
<td>ulan matches (list)</td>
<td>...</td>
</tr>
<tr>
<td>ulan non matches (list)</td>
<td>...</td>
</tr>
</tbody>
</table>

#### Museum Documentation Analysis

<table>
<thead>
<tr>
<th>Description</th>
<th>all</th>
</tr>
</thead>
<tbody>
<tr>
<td>musdoc full matches (count)</td>
<td>2591</td>
</tr>
<tr>
<td>musdoc full matches (list)</td>
<td>...</td>
</tr>
<tr>
<td>musdoc partial matches (count)</td>
<td>13044</td>
</tr>
<tr>
<td>musdoc partial matches (list)</td>
<td>...</td>
</tr>
</tbody>
</table>
2006-08 Research Results

Download the 10MB file in the Research area of www.steve.museum
Some stats from the research:

11 Participating Museums
1,782 Works of Art in the Research
36,981 Tags collected
2,017 Users who tagged
A Few Highlights

Museum professionals found most tags useful

88% of tags were useful

If you found this work using this term would you be surprised?
A Few Highlights

Tags are different than museum documentation

- 86% of all tags not found in label copy
- 62% of distinct tags not in AAT
- 85% of distinct tags not in ULAN
Tags are almost always useful when they are assigned two or more times.
A Few Highlights

Few useful tags are found in extended documentation

Automated Matching is problematic

• Distinct tags identified in **11** documents
• **138** matches found automatically:
  51 relevant | 87 not-relevant

63% false matches

... the *house* where he grew up ...
A Few Highlights

Institutional Affiliation Matters

- Users invited to tag by The Metropolitan Museum of Art were 4 times as productive
- Multi-Institution Tagger: **22 tags / user**
- Single-Institution Tagger: **82 tags / user**
Some work in steve’s future and some possible outcomes
Steve in Action: Social Tagging Tools and Methods Applied

A demonstration grant focusing on encouraging and enabling widespread use of tagging in museums, and in extending the functionality of the steve tool set
Creating Engaging Tagging Experiences:
Developing next generation tagging interfaces, alternative interaction devices, tagging in galleries, mobile tagging
Creating Engaging Tagging Experiences:
Developing next generation tagging interfaces, alternative interaction devices, tagging in galleries, mobile tagging
Police Dog, Tess

Date of Work: 29/1/1935
Type of Material: Graphic Materials
Call Number: Home and Away - 23650
Physical Description:
Photographs - 1 film photonegative (copied from original nitrate photonegative); 35 mm.
Original item no. NCY49/86
Topic: police dogs, telephones
Place: Sydney (N.S.W.)
Digital order no.: hood_23650
The Art Jury

Artist Adams, Wayman
nationality American
birth-death 1883-1959
Creation Date 1921
Materials oil on canvas
Dimensions 82 x 54 in. 86 x 61 in. (framed)
Credit line Gift to the Art Association through popular subscription
Accession number 1997.139

Gallery Label
This ambitious portrait presents the members of the Hoosier group, T. C. Steele, Otto Stark, J. Ottis Adams and William Forsyth. Richard Gruelle had died seven years earlier.

The artists are posed as if they were choosing paintings for an art exhibition.

<table>
<thead>
<tr>
<th>Coord</th>
<th>Tag</th>
<th>Hex Color</th>
</tr>
</thead>
<tbody>
<tr>
<td>189, 200</td>
<td>T.C. Steele</td>
<td>#986A48</td>
</tr>
<tr>
<td>319, 200</td>
<td>Otto Stark</td>
<td>#ECCFAD</td>
</tr>
<tr>
<td>386, 203</td>
<td>J. Ottis Adams</td>
<td>#957455</td>
</tr>
<tr>
<td>533, 283</td>
<td>William Forsyth</td>
<td>#A3764D</td>
</tr>
</tbody>
</table>
Building a tag server:
Aggregating tags from many different environments to support cross-collection searching and browsing
T3: Text, Tagging, Trust

A research grant focusing on the usefulness of combining computational linguistics and tagging to assign weights or trust to a set of objects tagged by experts.
Understanding Tags Better:

Refine precision of retrieved results through disambiguation (using automated processing, drawing on other data sources, vocabularies)
Research

Art & Architecture Thesaurus® Online
Full Record Display

Click the icon to view the hierarchy.

ID: 300041684  Record Type: concept

virginals (harpsichords, <zitherlike chordophones: plucked>, ... Furnishings and Equipment)

Note: Small harpsichords, usually rectangular in shape, with one keyboard and with the strings running at right angles to the keys.

Terms:
  virginals (preferred, C,U,D,American English-P)
  virginal (C,U,AD,American English)

Facet/Hierarchy Code: V.TT

Hierarchical Position:
  Objects Facet
    ... Furnishings and Equipment
      ........ Sound Devices
        .......... <sound devices by acoustical characteristics>
          ............ chordophones
            ............ <zitherlike chordophones>
              .............. <zitherlike chordophones: plucked>
                .................. harpsichords
                  ...................... virginals
Understanding Tags Better:

Finding ways to use tag collection and computational linguistics techniques to document collections in many languages
Understanding Users Better:

Developing tagging environments customized for user needs, including faceted/directed tagging interfaces, tool-supported environments
1937.1100.112

John Havinden, English, born 1908

[Automobile]

1930s
Gelatin silver print
13 1/8 x 19 4/16 cm (5 3/16 x 7 5/8 in.)

Inscribed in pencil on mount, recto UL, "1937;"
Inscribed in pencil on mount, verso C, "1937;"
Inscribed in pencil on mount, verso D, "1937;"
Inscribed in pencil on mount, verso E, "1937;"

Close
• Model Car
• Toy
• Marklin
• Tinplate
'The Marklin Streamlined Tourer' model came with suspension, steering, clockwork motor and drive train, with electric lighting available as an extra (tinplate, 38cm/15in, c1935, Germany).
Taggers can represent many kinds of expertise: geotagging

Flickr and Google street view mashup

For the background story to this please read my blog post.

This uses the Flicker API to create a KML file from the Powerhouse Museum Flicker commons Turrell collection and merge it with the Google maps and the Google maps street view. Click on a marker, and if the location is available on Google maps street view, you can instantly compare the historical and contemporary images.

Then...

Belmore Markets

& now

Campbell St
Questions or ideas?

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