“Art-sonomy”: Social Bookmarking of Real Artworks via Mobile Applications with Visual Tags

Stefano Levialdi Ghiron, Carlo Maria Medaglia, and Amedeo Perrone

LUA Usability and Accessibility Lab of Sapienza, University of Rome
P.le Aldo Moro 05, 00185 Rome, Italy
{levialdi,carlomaria.medaglia}@uniroma1.it, perrone.amedeo@gmail.com

Abstract. Tag-based indexing systems allow users to name web resources freely choosing keywords, called tags. Users (observers) may browse resources using a tag-cloud, a screen presentation that looks like an alphabetically ordered list of the most popular tags, visually weighted by font size. This project called Artsonomy, enables users to associate keywords (tags) to real artworks (for ex. in a museum) labeled with a QR Code by means of an application on a mobile device. The user’s tags are collected in a tag-cloud on the Artsonomy website so enabling other observers to share their experience after viewing an artwork.

Keywords: Social bookmarking, QR Codes, Mobile, Artworks, Visual Tagging, Folksonomy.

1 Introduction

“Folksonomy is the result of personal free tagging of information and objects (anything with a URL). The tagging is done in a social environment (shared and open to others). The act of tagging is done by the person consuming the information.”


VanderWal wrote on Folksonomy[1] being the result of a free choice of the user tagging an object (URL, image, video, etc). Starting from the appended tags\(^1\) to an object we may learn something about people who produced them. Folksonomies contain individuals’ structural knowledge about documents. A person’s structural knowledge has been defined as the knowledge of how concepts in a domain are interrelated[2]. In a collaborative tagging system, tags codify the knowledge of relationships among documents and concepts represented by the tags[3].

Tags probably allow to share interests, a similar vocabulary and provide semantics connecting items in a social bookmarking environment.

The consequence is that the production of a folksonomy is strictly connected to the meaning that people associate to an object, leaving on it his/her personal trail of the cognitive route followed to connect a keyword to the object.

\(^1\) Keywords that a user choose to describe an object.
Looking at a tag-cloud, for example, one may be informed (by font size) as which tags were most frequently appended to an object. This information allows anyone to discover group emerging areas and the social network trends on a specific entry/object[4].

The meaning assigned to an object by people can be retrieved starting from its connected keywords and it is generally different from the meaning emerging from the usual ways of indexing and categorizing, which constrains anyone to put an object under a specific category that someone else has previously decided (as in databases).

The goal of our project was to transfer this process to a real environment, more precisely, an art museum.

Tagging real artworks, instead of “web objects”, allows to understand the people’s experience about an art piece and share its meanings with many other people through the Web.

We have used mobile technologies to link a real environment to a Web-space. Finally by watching the resulting tag-clouds we enable anyone to understand the visitor’s perceptions and associated meanings that were given to each artwork: the “Artsonomy”.

2 Background

In order to categorize and index books, documents, photographs, articles, etc. dedicated professionals create metadata, which describe the content of documents (just like tags). This is the basis, for example, of most OPAC (Online Public Access Catalogs).

The second alternative is Author-created metadata: the original creators describe by means of tags their intellectual materials. The Dublin Core Metadata Initiative[5] is an example of this approach. Both these procedures partake the same problem: the User of an indexing system is absent from the categorizing process.

The third possibility is represented by the User-generated metadata that allows people to describe what they handle[6]. When this process takes place in a collaborative network where the user can share his/her tags, it is called folksonomy, as reported in the introduction of this paper.

Since a folksonomy describes relationships among documents and the meanings carried by the tags then, similar tags for example, may be associated to different documents linking them together through freely chosen connections by the users.

The evolution of folksonomy adheres to the user trends in categorizing contents, and metadata are generated by both content consumers and creators; by adding tags, people make a free choice based on their personal vocabulary generating a “democratic” tool producing meanings and establishing connections between contents, so providing the “Long tail” [7].

3 Visual Tags in the Real World

2D Codes are barcodes that contain more information than stacked ones. The 2D Codes diffusion starts in the 80’s to enhance the barcode performance in logistics.