A Social Platform for Cultural Activities

Cmpe352-451 Project Description

(2018)

This project aims to create a social platform for people who like to attend cultural activities. It lets people control, share, and follow cultural activities, namely going to theater plays, musicals, exhibitions, museums, and traveling abroad or home, in a single platform (note that you are welcome to add other cultural activities to the project). It will be an interactive platform that allows users to share their experiences, get recommendations and notifications.

The users are expected to sign up via providing their necessary information (i.e., name, surname, e-mail address) or their Facebook accounts. After signing in, they should be able to follow and send personal message to each other. Guests users can only see the actions that are done by the members and cannot take any action.

The users will be able to select the cultural activities they are interested. In this way, they will only be aware of the activities they are interested in and not spammed by other activities.

The users are expected to create pages for both upcoming and already passed events that include the information on the performing artist(s), the venue (location), the date, and the price of the event. Additional information may also be provided (i.e., rock music, musical theater) via semantic tags that may include genre, artists country of origin and any other piece of information related to the event. The location of an event should be provided by Google Maps API.

The users should also be able to search for other users and events. Searching process should consider all the information available in the personal profiles and the event pages. The application should also allow semantic search, which will try to find semantically similar users and events based on the context information provided in the semantic tags. For example, semantic search can be used to retrieve events of similar genres that the user did not specify directly. Moreover, the application should support location-based search. For example, user should be able to filter the events in a city or district.

If the event is already passed, then the users should be able mark it as attended. If not, they should be able to mark it as will attend, may attend, or wont attend.

There should also be a rating system. Both the users and the events

should be able to be voted and commented on. Comments should also be votable by the users.

The application should include a recommendation system. It should recommend events to the users, based on their event histories, the users they follow and their interests (e.g., hiking, cycling, music) that is selected after first sign in and can be updated on the personal profile pages.

Lastly, the application will support annotations. Users will be able to annotate the event information and multimedia that may have been added to an event page with explanations, questions, answers, geographical references, and links. The links may be to semantic resources to provide more detailed information about the story. Some annotation examples in other contexts are given in Figures 1 and 2.

The W3C *Web Annotation Data Model* is a Web recommendation for creating and managing annotations. Its associated *Web Annotation Protocol* (based on LDP) will be used to store annotations. The World Wide Consortium (W3C) [4] who works on all Web standards has introduced standards for representing annotations and their management. The Web Annotation Data Model [2] describes the vocabulary and its characteristics. The annotations should be stored and retrieved in accordance with the the protocol [3]. This protocol is based on Linked Data Platform [8], which addresses the needs for Linked Data[1] [5, 1, 7]. Annotations must be stored and retrieved with an API that is compliant with the standard. The annotations should be tested to assure validity. JSON-LD should be used for annotation representation as described in the W3C documentation. As expected, open source software with appropriate use permissions may be used, so long as it is properly attributed and documented.

Some applications with annotation supports are Adobe Reader[2] for editorial comments, Genius [6] for annotating web pages, label.me[3] to label images for research, and many more. Digital libraries utilize annotations[4]. A significant issue is that various applications have different and often proprietary representations yielding annotations that are not interoperable, which is not desired in open data contexts. The use of the Web Annotation Data Model results in interoperable annotations will be created to facilitate further processing.

The application is expected to have a web and mobile (Android) client.

[1] See `http://linkeddata.org/toexaminesomeofthedatapresentononlinkeddata`.

[2] `https://docs.adobe.com/docs/en/cq/5-4/wcm/default_components/annotations.html`

[3] http://labelme.csail.mit.edu/Release3.0/

[4] See `http://labs.europeana.eu/api/annotations-scenarios` for good use cases examples

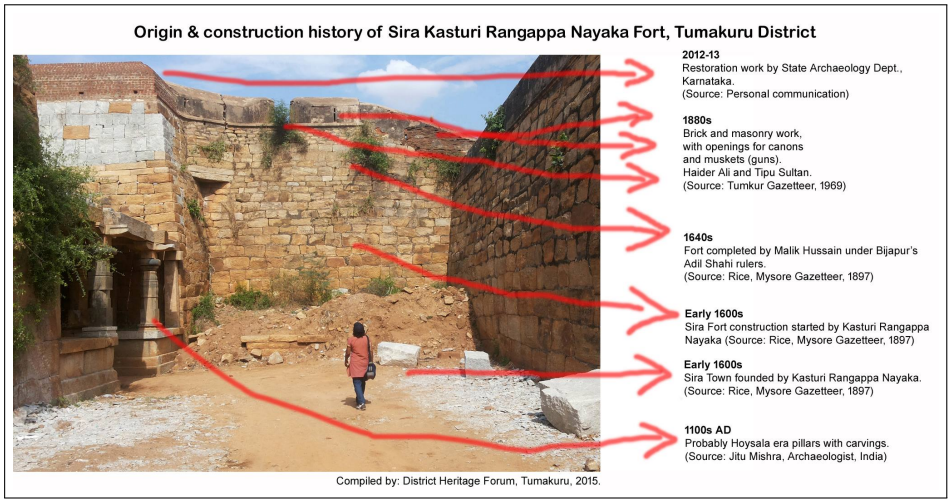

Figure 1: The manual annotation of an image for an archaeological site named Sira Kasturi Rangappa Nayaka Fort in Tumakuru by Digital Heritage Forum.

References

[1] Linked data - connect distributed data across the web, 2016. http://linkeddata.org/.

[2] Web annotation data model. `https://www.w3.org/TR/annotation-model/`, 2016. Accessed: 2016-04-14.

[3] Web annotation data model, w3c candidate recommendation. `https://www.w3.org/TR/annotation-protocol/`, 2016. Accessed: 2016-04-14.

[4] *World Wide Web Consortium*, 2016. accessed at July 2016.

[5] C. Bizer, T. Heath, and T. Berners-Lee. Linked data-the story so far. *Semantic Services, Interoperability and Web Applications: Emerging Concepts*, pages 205–227, 2009.

[6] Genius. Genius web annotator. `http://genius.com/web-annotator`, 2011. Accessed: 2016-09-07.

[7] T. Heath and C. Bizer. Linked data: Evolving the web into a global data space. *Synthesis lectures on the semantic web: theory and technology*, 1(1):1–136, 2011.

[8] S. Speicher and J. Arwe. Linked data platform 1.0. `http://www.w3.org/TR/ldp/`, 2015. Accessed: 2016-09-07.

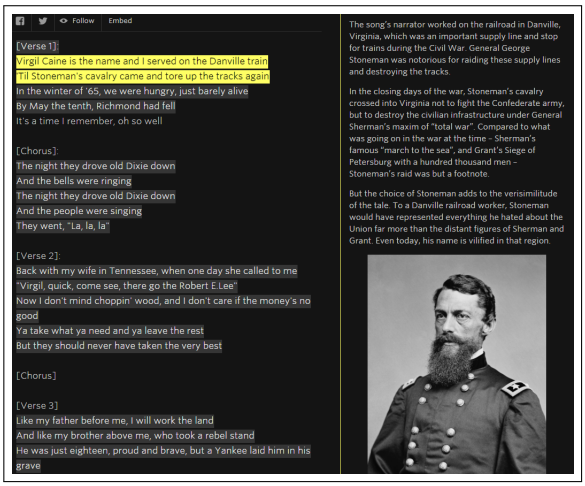

Figure 2: Annotation of a song during the US Civil War in Virginia.